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EFFECTS OF ONLINE SERVICE QUALITY ON SATISFACTION OF CUSTOMERS: EVIDENCE FROM INTERNET BANKING SERVICES IN BANGLADESH

Suman Prosad Saha¹, Sharmeen Akhter² and Farhana Rahman³

Abstract

Since past decade, banking industry has significantly shifted its daily transaction operations and practice towards internet banking. This dramatic change has perceived its effectiveness in terms of ease of transaction, safety and secrecy provided by banks. Until now the customers are reluctant in using and adopting the internet banking as a means of their regular financial transactions and payments. Despite the importance of online banking in this digital era, fewer studies have been conducted on the perception and satisfaction of customers regarding internet banking in the context of Bangladesh. Hence, identifying the impact of the attributes of online service quality on customer satisfaction and customer loyalty in the context of internet banking services delivered by the banks of Bangladesh is the main objective of this study. A survey via structured questionnaire has been conducted for the collection of data and SPSS has been used for analyzing the data to assess the strength of hypothesized connection, if any, among the constructs, which include Online Service-Quality dimensions and Customer Satisfaction consecutively as independent and dependent variable. The findings of the study show that the proposed model of Online Service-Quality is suitable to find out satisfaction of customers in internet banking service, providing enough evidence of the hypothesized relationship among the constructs. Thus, the study provides useful information to the banks in framing their strategies to satisfy its customers and build loyal, long lasting and profitable relationships.

Keywords: E-Service Quality, Customer Satisfaction, Internet Banking

1.0 Introduction

Internet has opened a new window in financial sector of Bangladesh. Online banking is making customers' banking experience more expedient, efficient, and effective. In financial sectors, it is considered a flourishing channel of financial transactions (Oruç & Tatar, 2017). Unfortunately, the people of Bangladesh are still reluctant in using and adopting this online platform in spite of its facilities. Online banking facility includes account check and statement print, internal and other bank fund transfer, mobile phone recharge, credit card payment, loan account information,

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bill payment, updating personal information, ATM information, PIN request, cheque book order and many more. So, it is now becoming important to determine the customers' perception regarding the quality and their satisfaction with the existing online banking services. In banking industry, customer retention and loyalty can be measured by customer satisfaction, and it can help developing effective strategies for efficient customer service in this customer-oriented service industry.

Banking industry has shifted its daily transaction operations and practices towards internet banking since the past decade. Internet banking service is one of the factors that has differentiated new generation banks from the traditional banks. 40 out of 57 scheduled commercial banks in Bangladesh are now offering internet banking services and as on October 2017, the number of internet banking rose to 1.7 million whereas the state-owned commercial banks including the specialized banks users are almost zero percent (Iqbal, 2018).

It is impossible for an organization to survive without its customers considering them as an asset to an organization. Satisfied customer is the focus of all the services provided by commercial banks of Bangladesh. Bangladesh market is generally dependent on prime city-based services mostly dominated by Dhaka, Chattogram, Jessore, Bogura. Covering the TCV (Time, Cost & Value) matrix for customers, commercial banks are focusing on digitalizing their solutions. There is no alternative of providing best quality service available in the marketplace in order to sustain in the long run. And for this shifting towards online, banks have to perceived its effectiveness in terms of ease of transaction, safety, security and privacy provided by banks. In spite of the effectiveness of online banking in several ways, it seems that customers are reluctant in using this service. In Bangladesh context fewer studies have been done on customers' perception on internet banking and their level of satisfaction.

It has been noticed that, the usage and low acceptance level among customers have not brought any noteworthy shift in bank-customer relationship. Existing literature on internet banking in Bangladesh specifies some problems and prospects of usage, but no significant effort has been made to identify the reasons of customers' not being satisfied with the technology (Siddiqi, 2011) or what factor(s) determine the online service quality and the satisfaction of customer.

E-Services are services or facilities which are provided to customers through online/web-site platform. So, E-Service quality is basically the difference between expectation and perceived performance of services to the customers or users by the respective website (Musiime & Ramadhan, 2011). E-service quality evaluation can lead to the improvement of enterprise effectiveness, attractiveness of services and competitiveness in the sector of virtual market towards enhancement of e-service quality (Mekovec & Kero, 2007). Customer satisfaction is now the topmost subject

for those businesses who are functioning in Electronic Commerce (EC) platform. Quality customer service will determine the survival or the failure of the business in future. Considering the ease of usage, convenience, cost effectiveness and on-going service facility; internet-based services are getting popularity against regular channel-based services where physical presence is mandatory. Till now, there have been very little understanding about the factors that affect customer satisfaction about internet-based services. (Khalifa & Liu, 2002).

Banks are lowering their operational cost, enhancing their revenues and creating automated process through the E-banking, which is more convenient for the customers (Tan & Teo, 2000). Almost all types of banking transactions can be done at a click of mouse through the internet banking except cash withdrawal (DeYoung, 2001) and banks use this platform as it is one of the cheapest ways of delivering banking products and services (Pikkarainen et al., 2004). So, through E-banking, information collection and management of transactions can be executed in an effective and efficient way. In Bangladesh, some researches have tried to cover electronic commerce (Azam, 2007), policy implications of E-Banking (Rahman, 2009), computer adoption (Azam, 2005), usage of Internet (Awal, 2004), online banking (Bakta et al., 2007) and customer satisfaction on E-banking (Nupur, 2010).

The objective of the study is to identify the impact of Online Service Quality (E-ServQual) on the satisfaction of customers using internet-based banking in Bangladesh. It will try to identify the critical factors of online service quality in the retail banking sector of Bangladesh. Moreover, this study intends to find out the interrelations between Online Service Quality and Customer Satisfaction in Internet Banking.

2.0 Literature Review

2.1 Online service quality

It is evident that online service (e-service) is the internet-based service which is diverse from traditional way of delivering services. With the development of information technology, online services have changed the pattern of people's daily life, especially in terms of communication between consumers and service providers. It has made customized and requirement-based service offering possible. Oliveria et al. (2002) suggests that by offering quality e-services to customers, companies can attain competitive competencies. Among attributes (costless, feasible, and easier) of online services in comparison with traditional networks, service quality is the crucial determinant for successful online services (Santos, 2003). So, service quality is increasingly recognized as a significant aspect of online services which has robust influence on the satisfaction of customers and the performance of companies (Li and Suomi, 2009).

2.2 Proposed Research Model

To address the E-service quality issue, the traditional or regular service quality dimensions won't be a standard here as it requires a new and exclusive service delivery process. The proposed research model emerged from an extensive literature review. Zeithaml, Parasuraman & Malhotra (2005) developed E-ServQual which is used in electronic service quality measurement and they identified seven dimensions—efficiency, reliability, responsiveness, fulfillment, privacy, recovery and website design. Nine Service Quality (ServQual) dimensions of internet banking were identified by Saha and Zhao (2005), those were reliability, efficiency, fulfillment, responsiveness, privacy, communication, personalization, technology update and logistic/technical paraphernalia. Kaynama and Black (2000) suggested seven dimensions of Online ServQual while fifteen dimensions of Online ServQual were proposed by Madu and Madu (2002). Based on these models, this study has selected six dimensions of Online Service Quality (E-ServQual) which are Reliability, Responsiveness, Efficiency, Fulfillment, Security/Privacy and Website Design.

2.3 Reliability

Reliability involves trustworthiness and accuracy in performance. So, it means that the firm is going to provide what it assures to customers, specifically activities like billing accurately, maintaining record properly and providing service within designated time line (Saha & Zhao, 2005). Dabholkar et al. (2002) also considered reliability as the most vital feature in assessment of service quality by the customers. Zeithaml (2000) emphasized on reliability when customers adopt advanced technology because technological malfunctioning is a common risk that customers experience. Parasuraman et al. (1988) also considered reliability of the service as a significant factor of service quality. The hypothesis for reliability is as follows-

H₀₁: Reliability of E-ServQual has no significant impact on customer satisfaction

H_{a1}: Reliability of E-ServQual has significant impact on customer satisfaction

2.4 Responsiveness

Responsiveness is the ability to provide accurate information to customers, readiness to help customers when a problem arises and delivery of quick service by the e-retailers (Zeithaml, et al. 2002; Saha & Zhao, 2005). It concerns with the readiness or eagerness of employees in service delivery. The overall time of service actions like timely delivery or immediately getting back to customer requests indicate responsiveness (Zeithaml, 2000). Customers are particularly attracted in quick service in delivery. In addition, most research findings emphasized that customers exaggerate the handling time of a service (Peppers and Rogers, 1993). Even Lovelock, et al (2001) also agreed that delay in service delivery has adverse impact

on the inclusive perceptions of individuals in service quality. It was also found that while using electronic banking and shopping, time savings is important to consumer (Yousafzai, et al. 2003). The hypothesis developed for Responsiveness is as follows-

H₀₂: Responsiveness of E-ServQual has no significant impact on customer satisfaction

H_{a2}: Responsiveness of E-ServQual has significant impact on customer satisfaction

2.5 Efficiency

Efficiency level is enriched when customers can reach the website easily and find out their desired products and information in simplest way of online surfing (Zeithaml, et al. 2002 and Saha and Zhao, 2005). Websites should be simple in nature, properly designed and contain minimum range of information. The hypothesis developed for Efficiency is-

H₀₃: Efficiency of E-ServQual has no significant impact on customer satisfaction

H_{a3}: Efficiency of E-ServQual has significant impact on customer satisfaction

2.6 Security/Privacy

Security concern is a strong and frequent issue to individuals behind the reluctance of adopting internet banking. O'Connell (1996) also indicated that the slow growth of internet banking of a country's banking system is due to the security and privacy issues. So, in order to improve the acceptance rate of online banking, it is essential to address the security issues (Mukherjee and Nath, 2003; Laforet and Li, 2005). It was found in research that majority of people have very shallow knowledge and understanding of online banking security risk although existence of risk is known to them. According to Gerrard et al. (2006), in future one of the most important challenge to an individual or customer of a bank is the fear associated with high risk in adoption of web-based banking and financial transactions. A further finding indicate that people are confident about the fact that their funds will be protected by banks but their general confidence on online banking technology is very weak. The following hypothesis is developed for Security-

H₀₄: Security/Privacy of E-ServQual has no significant impact on customer satisfaction

H_{a4}: Security/Privacy of E-ServQual has significant impact on customer satisfaction

2.7 Website Design

Website design encompasses visual appeal of web page with customized exploration links, quick access, and ease of error alteration (Liu and Arnett, 2000).

Usability, refers to the ease by which users can easily access required information and navigate the web portal, is considered to be one of the significant factors that affect user satisfaction (Gant and Gant, 2002). Well-designed websites have user friendly and consistent interfaces which helps individuals easily use it (Gant and Gant, 2002). So, the website design should be in a way where customers can find information easily, use the most commonly used search engine and can move fast through the pages easily. The hypothesis for Website design is as follows-

H_{0s}: Website design of E-ServQual has no significant impact on customer satisfaction

H_{as}: Website design of E-ServQual has significant impact on customer satisfaction

3.0 Research Methodology

In order to obtain information regarding customer satisfaction for online banking, survey method was utilized. To test the hypothesis, formal research design has been selected so that the association among different variables can be shown in a structured and precise way.

There are five explanatory variables, one moderating variable, and one dependent variable in the research framework. Explanatory study is used to test the hypothesis' so that the variation in the independent variables can capture the variation in the dependent variable. The explanatory research is the examination of cause-and-effect relationships. It not only indicates the relationships between variables but also specifies the direction of the relationship.

According to Cooper and Schindler (2003), in non-probability convenience sampling, samples might be unrestricted, economical, and easiest to conduct. Convenience sampling was used in the study due to the time constraint. When respondents appeared in different bank branches, they were asked if they were using internet banking services. Upon receiving affirmative feedback, they were handed over the questionnaire to be filled on the spot. If the respondents were unable to fill the questionnaire in the branches, they were emailed the same so that they could fill it up at their convenience. 350 respondents were selected as the sample size through the process conducted. The survey questionnaire was randomly distributed among the target respondents. Those who were eligible to hold a savings and/or current account in a retail bank and used online banking services were the population of the study.

The data collection process must be disseminated throughout a vast population in order to create a realistic output. The survey questionnaire was created to be applicable to a diverse population with respondents drawn from broader categories ranging from different races, gender, education backgrounds, age and professions. The survey was conducted via approaching the respondents physically at several

branches of banks that are providing internet banking service. The data collection was done from the month of December 2019 to February 2020.

The questionnaire was organized into two parts for the ease of comprehension and reading. The first part of the questionnaire considered the demographic aspects of the respondents. For the ease of use, multiple choice options were in place in the design of the questions. Both the independent and dependent variables related questions were in the second part of the questionnaire. Likert Based questionnaire ranging from (1 to 5) which is strongly disagree to strongly agree continuum was used for rating each item. In this study, 325 questionnaires were collected out of 350 respondents which were used for the purpose of analysis. The response rate came in at around 93%. However, 25 questionnaires from the sample were rejected as they were incomplete. The questionnaire was surveyed physically in branches of several banks providing internet banking service and via e-mail. The objective was to gather the thoughts of the respondents regarding the Online Service Quality (E-ServQual) in retail banks located in Dhaka city. All collected data were fed into the Statistical Package for the Social Sciences (SPSS) software for analysis.

4.0 Results

4.1 Descriptive Statistics

The analysis was conducted on a total of 325 respondents. From table 1, it can be seen that approximately 87.4% respondents were male and the rest 12.6% were female. People from different age groups participated in the survey. Around 41.7% of respondents (136 people) fell within the age bracket of 21 to 35 years. 46.6% (152 participants) were between 36 to 45 years while 9.5% (31 respondents) were within the age group of 46 to 55 years. There were 6 respondents who were above 55 years.

Table 1: Demographic information

Age	Frequency	Percentage
21-35	136	41.7
36-45	152	46.6
46-55	31	9.5
Over 55	6	1.8
Total	325	100.0
Gender		
Male	285	87.4
Female	40	12.6
Total	325	100.0

4.2 Reliability Analysis

In order to measure internal consistency, Cronbach's Alpha of multiple items were calculated. A reliability coefficient of 0.7 is considered to be acceptable while a score above 0.8 is good. A reliability coefficient of more than 0.9 is excellent (George, 2003). From Table 2, it can be seen that the Cronbach Alpha value is within good range for all the variables except for web design which is 0.763 falling within the acceptable range.

Table 2: Reliability analysis

Dimensions	Items	Cronbach's α
Reliability	5	0.875
Responsiveness	5	0.835
Security/Privacy	5	0.856
Website design	3	0.763
Efficiency	5	0.878
Customer satisfaction	3	0.884

4.3 Regression Analysis

It is suggested by statisticians that before applying regression analysis, a researcher should check for multicollinearity among explanatory variables. An implicit assumption of Ordinary Least Squares (OLS) estimation is that the explanatory variables should be orthogonal to each other (Brooks, 2014). Correlation matrix between the individual regressor is a useful tool to investigate the presence of multicollinearity. Pair wise correlation between two independent variables higher than 0.8 denotes serious multicollinearity problem (Gujarati and Porter, 2009). One way to remove this problem is dropping highly correlated variables. Another approach to diagnose for multicollinearity is using Variance Inflation Factor (VIF). If average variance inflation factor of a variable is higher than 10, it is highly collinear (Gujarati and Porter, 1999). After conducting necessary tests, it can be concluded that this study is free from multicollinearity as the VIF is less than 10 for all variables.

One major assumption of Classical Linear Regression Model (CLRM) is that the error terms are uncorrelated with each other. Correlated error terms cause the problem of Autocorrelation (Brooks, 2014). However, to check if the data set is serially correlated or not, Durbin- Watson (DW) statistics was used. From table 4, it can be seen that, the DW statistics is 1.868. Thus, it can be concluded that the model used in this study is free from the problem of autocorrelation.

$$Y = \alpha + \beta_1 (\text{Reliability}) + \beta_2 (\text{Responsiveness}) + \beta_3 (\text{Security/Privacy}) + \beta_4 (\text{Website Design}) + \beta_5 (\text{Efficiency})$$

Here Y is the dependent variable which is Customer Satisfaction, and α , is the constant term.

Table 3 summarizes the results of multiple regression analysis. It can be seen that the combination of all the proposed variables of E-ServQual caused 79.3% effect on Customer Satisfaction. R^2 value of 0.793 indicates a strong effect of all five explanatory variables on customer satisfaction. All the variables are found to have significant impact on the dependent variable at 5% level of significance, thus rejecting H_{01} , H_{02} , H_{03} , H_{04} , and H_{05} . By looking at the beta value it can be observed that Efficiency factor is most influential for Customer Satisfaction with 39.5% effect whereas Responsiveness, Reliability, Security/Privacy, and Website Design stands for 11.4%, 10%, 27.7%, and 12.4% respectively. So, all the explanatory variables have a positive and significant impact on the dependent variable Customer Satisfaction.

Table 3: Multiple Regression analysis results

	Unstandardized Coefficients		Standardized Coefficients	t-Value	Significance	VIF
	B	SE	β			
Reliability	0.134	0.048	0.114	2.820	0.005**	2.533
Responsiveness	0.126	0.056	0.100	2.258	0.025**	3.010
Security/Privacy	0.382	0.057	0.277	6.722	0.000**	2.617
Website Design	0.135	0.042	0.124	3.207	0.001**	2.303
Efficiency	0.430	0.048	0.395	8.894	0.000**	3.038
Intercept (Constant)	0.217					
R^2	0.793					
Adjusted R^2	0.789					
Durbin-Watson	1.868					
Note: **Significant at 5 percent level						

The table represents the multiple regression analysis results. All the variables are found to be significant. The presence of multicollinearity is checked by Variance Inflation Factor (VIF). The value of R^2 and Adjusted R^2 refers to the strong explanatory power of the model used while the DW statistics indicate that the model is free from autocorrelation.

According to Hoaglin & Welsch (1978), Analysis of Variance (ANOVA) is a tool to measure the overall model significance. From Table 4 it can be seen that the *P* value is less than 0.05 implying that the model is significant.

Table 4: Analysis of Variance (ANNOVA) results

Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Regression	92.871	5	18.574		
Residual	24.282	319	0.076	244.003	0.000**
Total	117.154	324			

5.0 Conclusion

Internet banking is a cutting-edge banking system which offers enormous potential in providing new avenue growth for existing banks and financial institutions in Bangladesh. When it comes to delivering online banking services, managers from various institutions should focus more on the aspects that determine service quality. The higher the service quality, the better the customer satisfaction. Now-a-days customers are becoming increasingly accustomed to the quick and convenient internet banking system. The goal of this study was to identify the association between service quality and customer satisfaction on online banking.

This study tried to predict the relationship between service quality and customer satisfaction among internet banking customers in Dhaka, Bangladesh. Based on relevant studies and theories, a questionnaire survey was undertaken. A rigorous analysis was conducted from the data collected and the findings support that the dimensions in E-ServQual model has significant effect on customer satisfaction. So, both traditional and non-traditional banks should more focus on determinants of E-ServQual to guarantee the customer satisfaction. From the study we found strong effect of five variables (Reliability, Responsiveness, Security/Privacy, Website Design and Efficiency on customer satisfaction. Among them Efficiency in the most influential than other variables. So, banks should be more cautious about their efficiency level of service. And this might be developed by giving proper training to the employees and giving much investment in research and development for providing new and advance solutions.

World is moving towards digital banking solutions where branchless banking is introduced in many countries. Banks major costs are related to establishment and management of branches. So, digital banking can be a good solution to the banks' management to ensure cost effective solution along with strong customer satisfaction. Internet banking provides banks with the option to customize their service while also establishing a profitable customer relationship.

Future research can focus on a variety of extensions of the current study. The Online Service Quality dimensions utilized in this study may be verified in future research too. Also, there is scope for more research into the elements of Online Service Quality of internet banking.

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DETERMINANTS OF EMPLOYEE PRODUCTIVITY IN PUBLIC SECTOR ORGANIZATIONS: AN EMPIRICAL STUDY.

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Abstract

Employee productivity is the engine to achieve a firm's goals. Compromising with productivity components generates both short-term and long-term challenges. Most of the previous studies investigated employee productivity in a different setting like the private sector, firm's performance but the present study attempted on public sector firms. A non-probabilistic judgmental purposive sampling technique was applied to select respondent from public sector organizations such as manufacturing, services and others. There were 350 respondents as sample and a self-administered pretested questionnaire was employed to collect primary data. The instrument adapted from research and internal consistency was measured by Cronbach's Alpha (total=.82) and data were analyzed through factor analysis. One of the impressive outcomes of the study is that seven factors namely technology facility, managerial cooperation, autonomy, job satisfaction, team collaboration, training, and performance management process significantly affect employee productivity and organizational communication, top management support are revealed insignificant. The result of the study will be a worthy reference for the professional leaders, researchers, policy makers and practitioners. Finally, the future directions and implication are discussed.

Keywords: Employee Productivity, Factors, Public sector, Bangladesh.

1. Introduction

Employee productivity is the engine of the success of any organization. It forms the total value and survival of the firms. The productivity delineated the extent of efforts rendered by the individual in a team or single set of responses. Due to the growing importance of this prime resources, it has drawn enormous attention as the central focus of the organizations. Relevantly the productivity fuelled the firm's growth and winning competitive advantage in industries. As result employee productivity and its accelerating factors are become a topmost priority in modern days business firms (Rubel & Kee, 2013; Thapa et al., 2017). Empirical investigations in many settings have revealed that there are multiple issues lies with employee output. And, most of them related to the people work behaviour (Biswas & Bhatnagar, 2013; Taboli, 2013). Notably, the employee productivity is not merely concentrated to individual performance level rather it constitutes the aggregate productivity of the whole team or department that move forward firm's total

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performance. To this end, employee productivity is the heart of the firms that warrants a strong and sustainable fit. For this reason, previous scholars attested to the need for employee productivity measurement and set forth future strategies of the firms (Vanderslice et al., 1987). The human resource management (HRM) studies came in common consensus that there are many factors that stimulate the productivity of professionals such as job satisfaction, engagement, technology, leadership support, organizational commitment (Biswas & Bhatnagar, 2013; Taboli, 2013); motivation, ability, and opportunity to participate in decision making (Nerdinger & Sonnentag, 2005); a congenial workplace environment (Francis & Santhosh, 2016); a sense of job satisfaction that makes it more efficient (Crossman & Abou-Zaki, 2003) and uncontrol of those may create huge noise and disruptions like un-stabilizing firms retention and growth. On different notes, a productive culture changes the employee mind-set, engage them with firms visions and make them highly adaptive drives towards accepting every new challenges in the job (Yuan & Woodman, 2010). The public sector organizations are the key driver of governmental system. At present there are 150491.3 million employees in public sectors of Bangladesh (Statistics and Research Cell, 2021). The employees are serving in different offices of public sector like ministry, corporation, autonomous bodies etc. like every other economy of the globe, the public sector organizations are highly dedicated to serve for securing national interest in Bangladesh. Essentially, the assessment of public-sector employee productivity is a must for some reasons like improving accountability for resource usage and aiding in equal distribution of public resources. For policy initiatives, it is important to improve public-sector performance. Moreover, research in this field is highly significant in order to unleash the areas of improvement in relevant sector in order to excel the spirit of success of the government.

Thus, academic research on employee productivity itself is a demand-driven field. Accordingly, the key problem addressed in the present enquiry is that if the employee's productivity declines then it will damage the organizational productivity and if the organizational productivity is declined, the national productivity will be adversely impacted. Additionally, the distinct novelties of the study are the populations, research instrument, measurement drivers, analytical tools, findings and implications. The result of the study will be able to recognize the factor affecting employee productivity that may help the government policymakers, and shed light on related problems of HRM practices.

2. Justification of the Study

Empirical findings in the context of developed and developing economies revealed that employees are at the heart of making the differences in an organization. The power making of these differences is the art of their work capacity, behaviours

and motivation. There might be state-of-art machines and processes but if employees are unproductive then everything is worthless. So, one of the key demands of the research is to underscore the importance of employee productivity and discover the factors persisting at the back. To the best of the author knowledge there is no such research conducted in this sector. Therefore, research on this theoretical domain is judicious to contribute in context of the public sector organizations of emerging economy like Bangladesh.

3. Literature Review and Hypothesis Development

3.1 Employee Productivity

Employee productivity has been used in a variety of ways keeping similar operational meaning. Previous authors, academic scholars, and researchers have synonymously applied in relevant research for example work performance (Khtatbeh et al., 2020); job outcome (Van Bogaert et al., 2013); workplace outcome (Wang, 2016)); job performance (Pilipiec, 2020); job output (Bastienier, 1970); task performance (Van Scotter et al., 2000) and so on. The empirical research has also shed insight on the importance, applicability, and factors of employee productivity to supplement terms. Similarly, past research has emphasized the importance of productivity in accelerating organizational performance. According to (Campbell, 1990) productivity is a certain behaviour of employees who really are exposed to performance. The author responded by saying that the aggregate job behaviour of employees provides total value to an organization both directly and indirectly. And, the recognition of maximum productivity, job behaviour is improved with relevant and polite care. Employee productivity, in the same vein, is defined as the use of knowledge, skills, employee experiences, and abilities to complete the organization's designated mission (Haenisch, 2012). For this reason, the significant goal is to figure out how to make the best utilization of efforts, capacity, and resources and ensure the output of people's efforts, capacity at work. An organization should concentrate on the best method to use human productivity at work by creating, facilitating, and nurturing it (Beaton et al., 2009). As a result, assessing the major aspects of a job is a must for every firm in order to maximize staff productivity. Because it is a better way to control and improve if the productivity indicators are pre-defined against each task. Likewise, employee productivity is measured by a variety of factors, most of which are dependent on the nature of the job, its types, the nature of the role, and the structure of the organization's business (Saini & Budhwar, 2004). According to research, job descriptions and responsibilities must be fixed, work specifications must be created, the task must be communicated to the employee from the start, and performance progress must be monitored (Abdullah & Ilham, 2012; Raju & Banerjee, 2017). Several investigations proved the efficacy of productivity and performance. According to findings, a positional accuracy does not always have effective

productivity, and a productive result does not always come from absolute efficiency. As a result, set up a yardstick for the drive forward is a vital instrument for navigating staff performance (Bashook, 2005). But many researchers argued that there are two fundamental dimensions to productivity like qualitative and quantitative. One is qualitative, in which individuals are employed in service level jobs, and the other is quantitative, in which workers are involved in genuine production level jobs. Persons participating in qualitative forms of jobs have nebulous jobs that are not easily quantified, and have fewer job-specific measuring tools that are not always directly observable. The quantitative task, on the other hand, can be easily measured based on the mathematical and numbered output (Condrey, 1994; Joppe & Li, 2016). Thus, few studies have supported using timeliness, client services, commitment, confidence, accuracy, job quality, innovation, disciplines, responsibility, and the use of technology as a yardstick for evaluating employee productivity (Beaton et al., 2009; Biswas & Bhatnagar, 2013; Chen et al., 2020; Gitonga et al., 2019; Hall & Hursch, 1982; Oladejo & Oladejo, 2016; Owino, 2019; Palvalin et al., 2017; Pawirosumarto & Iriani, 2018; Raju & Banerjee, 2017; Shiva Prasad & Suar, 2010; Sofyani et al., 2018; Taboli, 2013; Lilian Chan, 2004; Haenisch, 2012; Joppe & Li, 2016). On the other employee job output is critical to every organization's success. That is why focusing on employee job behaviour and treating them outcome-based resources is one of the important manifestations of the latest HRM functions. Following this trend, employee productivity has been rigorously studied in the spirit of desired value proposition in a highly effective and efficient manner (Abdullah & Ilham, 2012; Alişkan, 2010).

3.2 Factors of Employee Productivity

Employees are like the pillar of the firms. If the pillar is not cemented in a strong foundation, it will collapse the performance structure. Employee productivity is like an engine that warrants regular checks and repairs to make it highly outcome-based. No system can operate without the hands of employees but to make it more efficient requires extra effort. In the previous press of thoughts, a number of influential factors like management support, teamwork, supervisory support, organizational culture, technological facilities, decision-making capacity, training, performance management system, job satisfaction, and communication were addressed. According to (Raju & Banerjee, 2017) job profiles are instruments for defining an employee's position that should be disclosed to regulate service quality. Many of the other researchers concurred in this regard, arguing that technology is a critical requirement in the twenty-first century. The study opined that technological adoption not only results in proactive normal work productivity, but also encourages individuals to become more creative and imaginative (Plewa et al., 2012). Teamwork is also a highly influential factor. Similarly, employees' self-commitment is an inner feeling that demonstrates

integrity and seriousness at work. It stems from their attitude of voluntary efforts. An extraordinary professional who is self-motivated become a source of inspiration for others in the team and workgroups. Generally, a self-motivated is gradually do beyond and willing to extend cordial services. Aside from that, an employee who believes in team collaborations can volunteer to help others while doing his job, as well as provide extra mileage for the team (AL-Sinawi et al., 2015; Diamantidis & Chatzoglou, 2019). Job satisfaction is one of the key actors in employee task outcomes. There is a common saying that a 'happy employee is a productive employee and vice versa. According to the old school of thoughts, employee satisfaction steered the extent of productivity (Akhter & Yasmin, 2017; Masum et al., 2016). However, thoughts still alive because companies with maximum satisfied employees have comparatively higher profits than rest (Ahmetoglu et al., 2015). Notably, every productive employee delivers a high extent client satisfaction and turnover (Ahmetoglu et al., 2015). The gradual lifting of the previous volume of productivity to the highest level make an employee from a generalist to specialist and a specialist to the topper in work quality. The exploration of training and development is a highly significant tool to leverage the present level of skills. Moreover, if employees are not adequately trained, they are more likely to make mistakes and errors, and ultimately productivity would be declined (Dhar, 2015; Oladejo & Oladejo, 2016). As a result, personnel should be equipped with job knowledge before starting the job. According to eminent HRM scholar (Armstrong, 2016), training is like a lift that upskills employees, and lack of training can make serious harm in technical professions. As training assists employees in improving their existing level of abilities, motivation to work, and demonstrates the paths of personal advancement in their careers, corporations should focus on improving their current skills to a higher quality that improves performance (Sharif, 2012). Furthermore, according to other studies, both financial and non-financial benefits improve employee productivity. Therefore, employees are offered various financial and non-financial advantages such as bonuses, merit-based pay, leave allowances, retirement benefits, housing and accommodation allowances, base pay, commissions, profit incentive sharing, and employee insurance which have an impact on their output level (Ghebregiorgis & Karsten, 2006). In pertinent to the line of thoughts, attitudinal characteristics revealed a significant actor. It includes first track career growth, workplace circumstances, employee intrinsic and extrinsic rewards of performance. Notably, this influences constitutes a positive attitude, emotional reactions, job feelings, working lives, engagement, job involvement, organizational commitment, and intention to stay (Aarabi et al., 2013; Haenisch, 2012). Supervisory patterns, the chances to engage in decision-making, and the attitude of mentoring highly influence employee task outcome. It reflects the magnitude of leadership practices that navigate employees. Leaders are the functional supervisors who act as a banyan tree to an employee to ensure duties and responsibilities. They facilitate

rather control. In this spirit traditional research advocated autonomy like managing people, giving them control, and permitting them to participate in decision-making is a strong driver of performance (Islam et al., 2018; Vanderslice et al., 1987). In support of that notion, evidence in Bangladesh has witnessed to the value of employee engagement, allowing them to participate in decision-making, acknowledging their viewpoints, and proper supervision, all of which help to boost employee productivity in the appropriate path (Mohammad, 2017; Rahman, 2015). Based on above discussion and the linkage between employee productivity with factors, the following hypothesizes are formulated:

- H₁: Job satisfaction has positive effect on employee productivity in public sector.*
- H₂: Technology facility has positive effect on employee productivity in public sector.*
- H₃: Managerial cooperation has positive effect on employee productivity in public sector.*
- H₄: Autonomy has positive effect on employee productivity in public sector.*
- H₅: Top management support has positive effect on employee productivity in public sector.*
- H₆: Team collaboration has positive effect on employee productivity in public sector.*
- H₇: Training has positive effect on employee productivity in public sector.*
- H₈: Communication has positive effect on employee productivity in public sector.*
- H₉: Performance Management Process has positive effect on employee productivity in public sector.*

4. Objectives of The Study

The core objective of the research is to determine the factors influence employee productivity in public sector organizations.

4.1 Specific Objectives

- ✓ To determine the effect of various factors on employee productivity in public sectors.
- ✓ To find out the link between performance-related factors and employee productivity.

5. Conceptual Framework

The lifeblood of organizational productivity is the productivity of its people. Employee productivity is a best business practice if it is nurtured by the firms. Simultaneously people can mount their work creativity and make it highly effective.

For this reason, firm's role is a critical driver to extract the maximum level of output. It's a two-way relationship. The social exchange theory (SET) stands to explain these two ways. Where one is employee and other is the employer. According to the theory, people in firms work as an interchange of behaviour between the organization and the person (Homans, 1961). It established a link between human behaviour at work and a linearity of performance and the organization's behaviour (Zafirovski, 2005). Employees exchange services through their dedication, hard effort, commitment, quality of service, and absolute motivation to the job. The employer, on the other hand, facilitates the exchanges via supervision, the workplace, management support, benefits, and acknowledgements. According to the theory's analyst (Blau, 2017), every self-initiated performance effort is the employee's own creation, resulting from organizational behaviours. The two-factor theory developed by (Herzberg et al., 1959) states the organizational motivators and maintenance factors of an employee. Later on, analyst expanded the elements of motivation but argued the role of the firms. So, the exchange-motivation layer is the life line of employee productivity. In the present research the framework has undergone with the guideline of the two theories. If the productivity is one side of the equation, and motivation is the other. One is dependant to other. Thus, the framework attempted to explore the exchange-motivation elements of employee productivity.

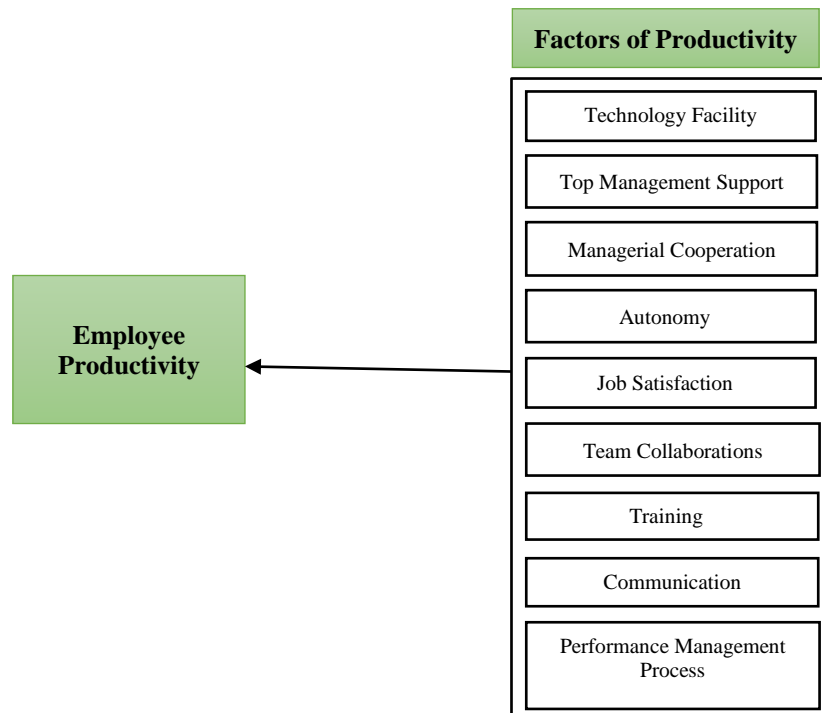


Figure 1: Conceptual framework for the research.

6. Research Methodology

Research design, sample size, sampling technique, data collection processes, research instrument, and data analysis techniques are all included in the research methodology section.

6.1 Research Design

This is a quantitative study based on primary data. It attempted to determine the effective factors of employee productivity in public sector. The approaches of the models and underlined theories were affirmed to the existing literature in the study. The methodology was designed in order to fulfill the objectives. Previous researcher (Cavana et al., 2001) advocated that this approach and design can fulfill to get a reliable outcome. To collect primary data from the selected respondent, the self-administered structured questionnaire was used. Secondary data were collected from research paper, books, publications, library, e-journal for literature review, statistical values.

6.2 Sampling Frame, Sample Size and Sampling Techniques

Sampling frame consist of all of the population units from which the sample will be obtained (Cooper, & Schindler, 2011). The study was conducted on various public sector organizations of Bangladesh like manufacturing, services, engineering, testing and certifications based on Dhaka division. All the employees are the populations of the sector. The unit of analysis are the employees who working permanent and full time in selected sectors. The exact number of employees were not evident from valid sources. According to (Sekaran and Bougie, 2016) the non-probabilistic judgmental purposive sampling (JPS) technique is useful if there is no population list but the respondent should be main or key person, capable of providing the most accurate and relevant information (Cooper & Schindler, 2011; Zikmund et al. 2012). Similarly, (Malhorta and Das, 2015) suggested it is low cost, convenient for respondents, and time saving and (Asiamah., 2017) advocated that JPS can be used in case of the unlisted population and adequate for Asian countries. Thus, the study employed JPS techniques. In order to meet the inclusion criteria a minimum one-year services, officers and permanent employees were considered. Cochran's formula developed by (Cochran, 1977) suggested the minimum sample size of 384 for unknown or approximate large population. (Malhorta and Das, 2015) suggested a minimum 200 sample size for factor analysis. Thus, 400 respondents were communicated and finally a total of 350 respondents (N=350) were chosen and obtain a more authentic output and meet the research goals.

6.3 Research Instrument

The primary data were collected via a structured questionnaire. The structured questionnaire is made up of two sections. Section 1 consists of six items to explain the demographic profile of respondents and Section 2 includes the 31 items to define factors like job satisfaction, technology facility, managerial cooperation, autonomy, top management support, team collaborations, training, communications, and performance management process. Accordingly, four items to explain job satisfaction, four items to explain technology facility, three items to explain managerial cooperation, three items to define autonomy, four items to define top management support, four items for team collaborations, three items for training, three for explaining communication and remaining three for performance management process adapted from previous studies in the same field (AL-Sinawi et al., 2015; de Bruijn, 2002; Egessa, 2014; Haenisch, 2012; Hatry, 1978; Mutia & Sikalieh, 2014; Plewa et al., 2012; Salanova et al., 2005; Tsui et al., 1997). According to the guideline of previous validated researches, a minimum three items of each factor was accepted to define the construct (Tremblay et al., 2010). The items consistency is given in table 2. The questionnaire anchored on five-point Likert scales, such as strongly agree =5, strongly disagree =1. The past studies measured productivity and factors using self-rating and supervisor rating, and discovered a substantial association between self-rating and supervisor rating (Harris & Schaubroeck, 1988; Rubel & Kee, 2013, Williams & Anderson, 1991). The original wording of the items slightly modified like, the addition of 'I,' 'my organization,' 'training' 'public sector' etc were included in pursuance of this study.

6.4 Data Collection

The primary target was drop-off and pick-up (DOPU) approach to collect data via questionnaires. Due to COVID 19 outbreak, the hybrid methods like the online platform, google forms, email were applied (Lee et al., 2021). Previous research has found that the DOPU approach helps respondents to finish on time and online platform can also reduce the time with less prejudice (Qader & Zainuddin, 2011; Rubel et al., 2017; Lee et al., 2021). The respondents in this study were the employees themselves. The primary data were collected from fourteen government organizations namely (manufacturing=40%, testing and certification=20%, engineering=15%, others=25%). Initially 400 questionnaires were distributed finally 350 questionnaires accepted for the study. The response rate in 75% which is sufficient for conducting the research (Ghosh et al., 2020). The data collected for the study for a period of six months (December 2020 to May 2021).

6.5 Data Analysis Techniques & Measurement of Validity and Reliability

The information was converted to data through tabulation and classification. The main data about productivity were analysed using factor analysis. In addition, the frequency distribution was used to examine the demographic profile. Validity and reliability are key tools for guiding research in the appropriate direction, determining the acceptable level of consistency, and accepting measurable items. The Cronbach's alpha was used to verify the internal consistency of the data. The Cronbach's alpha greater than .70 indicates that elements are more internally consistent with the factor (Guilford, 1950; Nunnally, 1978). And the items loaded below .50 is rejected. Aside from that, the histogram is used to see if the variables were normally distributed. The content validity is to confirm that the selected measurement items rightly represent the binding domain of the study, and content validity assured by obtaining an opinion from one academicians from the university of Dhaka in the field of management and two expert views from human resources professional. Construct validity measures the degree of the scale representing the concept being measured, and in this research, construct validity tested by statistical interpretation of correlation. The pilot study conducted among 50 employees and the data taken from all organizations at one point of time.

7. Data Analysis and Interpretation

Data analysis includes demographic statistics, reliability test, factor analysis & hypothesis test.

7.1 Demographic Statistics

Demographic profile of respondents is shown below:

Characteristics		Percent
Gender	Male	74%
	Female	26%
Education	MPhil/ PhD	3.5%
	Post-Graduation	55%
	Graduation	27.5%
	HSC/SSC/Equivalent	14%
Age	18-25	5.5%
	26-35	41.5%
	36-45	31%
	46-55	13%
	Greater than 55	9%

Experience	1 to 5 years	35.6%
	6 to 10 years	11%
	11 to 15 years	18.5%
	16 to 20 years	13.4%
	More than 20 Years	21.5%
Nature of employment	Permanent	88%
	Others: temporary/daily	12%
Types of organizations	Manufacturing firms	40%
	Testing and Certification firms	20%
	Engineering firms	15%
	Other services firms	25%

Table 1: Demographic characteristics of respondents (n=350).

7.2 Reliability Test

The reliability test to determine internal consistency is shown in the section below.

Factors	No. of Items	Cronbach's Alpha	Result
Job satisfaction	4	.93	Accepted
Technology Facility	4	.98	Accepted
Managerial Cooperation	3	.99	Accepted
Autonomy	3	.93	Accepted
Top Management Support	4	.92	Accepted
Team Collaborations	4	.92	Accepted
Training	3	.98	Accepted
Communications	3	.92	Accepted
Performance Management Process	3	.87	Accepted
Sum of all factors	31	.82	Accepted

Table 2: Reliability Test for internal consistency of items.

Cronbach's coefficient (α) varied from 0.87 to 0.99 for each investigation dimension (usually 0.5 and higher is acceptable), indicating the internal consistency of each dimension (factor) of employees' productivity (Cronbach, 1951; Malhotra & Dash, 2015). In addition, the Cronbach's coefficient (α) for all 31 items is .82. Cronbach's alpha score in this experiment was larger than 0.70, indicating that the survey utilized in this research had good internal reliability (Table 2).

7.3 Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.812
Bartlett's Test of Sphericity	Approx. Chi-Square	12202.836
	Df	465
	Sig.	0.000

Table 3: KMO and Bartlett's test

To ensure that the data was suitable for factor analysis, Bartlett's test of sphericity has been used (Bartlett, 1950). According to Bartlett's Test of Sphericity, the estimated chi-square value with 47 percent degree of freedom is 12202.83, and the significance level (.000) is less than 0.5. This finding demonstrates that a variety of factors have an impact on employee productivity in the public sector. And, the sampling adequacy was examined by the Kaiser-Meyer-Olkin (KMO) test at 0.81, which is higher than .05.

7.3.1 Decision on Total Variance of Factors

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.643	37.557	37.557	11.643	37.557	37.557	5.391	17.392	17.392
2	4.165	13.436	50.992	4.165	13.436	50.992	4.776	15.407	32.798
3	3.463	11.172	62.165	3.463	11.172	62.165	4.015	12.952	45.750
4	2.772	8.941	71.106	2.772	8.941	71.106	3.818	12.317	58.067
5	2.071	6.682	77.788	2.071	6.682	77.788	3.152	10.167	68.234
6	1.586	5.117	82.905	1.586	5.117	82.905	2.887	9.313	77.547
7	1.170	3.775	86.680	1.170	3.775	86.680	2.831	9.134	86.680
8	.814	2.627	89.307						
9	.784	2.530	91.838						
10	.558	1.800	93.638						
11	.328	1.058	94.696						
12	.271	.873	95.569						
13	.204	.659	96.228						
14	.180	.581	96.809						
15	.155	.499	97.308						

16	.145	.468	97.775						
17	.123	.398	98.174						
18	.119	.384	98.558						
19	.090	.291	98.849						
20	.085	.274	99.122						
21	.070	.226	99.349						
22	.051	.164	99.513						
23	.045	.147	99.660						
24	.032	.102	99.762						
25	.025	.081	99.842						
26	.023	.073	99.915						
27	.016	.051	99.966						
28	.009	.029	99.995						
29	.001	.005	100.000						
30	7.046E-18	2.273E-17	100.000						
31	-8.035E-19	-2.592E-18	100.000						
Extraction Method: Principal Component Analysis.									

Table 4: Decision on the extraction of actual loaded factors

The total variance method extracted from principal component analysis was used to find a number of factors that influence employee productivity in public sector organizations. Initial Eigenvalues must be greater than one (1) and the cumulative percentage of rotation sums of squared loadings must be greater than 60%. The cumulative percentage of rotation sums of squared loading is 86.68 percent, according to the total variance table, and initial eigenvalues revealed seven (7) factors out of nine (9) dimensions.

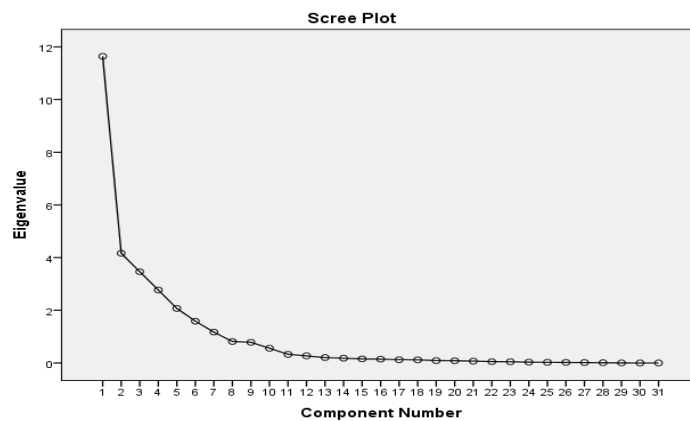
**Chart 1: Scree plot for indication of factors.**

Table 4 and Scree plot Chart 1 illustrate the choice on the retrieved actual factors affecting employee productivity. Table 4 shows that there are a total of 7 components herein referred to as factors that have a substantial relationship with the employee productivity. The seven elements explained 86.68 percent of the variance, which means that out of a total of 100 percent, all seven factors can explain 86.68 percent of the influence on employees' productivity in public sector organizations. According to (Malhotra & Dash, 2015), two elements, top management support and communication, were not taken into account in the final results due to low loading (less than .50) and cross-loading with various factors.

Moreover, Table 4 and Chart 1 also demonstrate the accepted factors based on eigenvalue (EV) such as technology facility (Factor #1: EV= 5.391), performance management process (Factor #2, EV=4.776), team collaborations (Factor #3: EV=4.015), job satisfaction (Factor #4: EV=3.818), managerial cooperation (Factor #5: EV=3.152), training (Factor #6: EV=2.887), and autonomy (Factor #7: EV=2.831).

7.3.2 Decision on Hypothesis

Rotated Component Matrix ^a							
	Component						
	1	2	3	4	5	6	7
TC ₁	.227	.030	.944	.106	.031	.057	-.029
TC ₂	.117	.147	.932	.079	-.005	.044	-.064
TC ₃	.194	.136	.863	.190	.058	-.001	.001
TC ₄	.307	.093	.880	.088	-.027	.069	-.030
TF ₁	.880	.255	.199	.160	-.103	-.189	-.096
TF ₂	.892	.255	.190	.144	-.077	-.169	-.088
TF ₃	.883	.251	.198	.160	-.099	-.190	-.091
TF ₄	.896	.262	.186	.132	-.063	-.152	-.092
MC ₁	-.058	.095	.018	.014	.971	.155	.069
MC ₂	-.058	.095	.018	.014	.891	.155	.069
MC ₃	-.058	.095	.018	.014	.701	.155	.069
TR ₁	.464	.362	.301	.423	.193	.909	-.124
TR ₂	.570	.392	.354	.366	.193	.796	-.085
TR ₃	.540	.399	.291	.386	.195	.893	-.096
TMS ₁	-.189	-.078	-.057	-.216	-.115	.065	.049
TMS ₂	-.340	-.041	-.049	-.220	-.056	.011	.027
TMS ₃	-.258	-.295	-.057	-.223	-.109	.036	.040

TMS ₄	-.190	-.373	-.086	-.187	-.155	.097	.041
AU ₁	-.122	-.105	-.039	-.009	.049	-.127	.631
AU ₂	-.067	-.103	-.022	-.014	.081	-.091	.915
AU ₃	-.170	-.046	-.048	.027	.056	.016	.826
PMP ₁	.604	.538	.254	.116	-.162	.056	-.253
PMP ₂	.420	.531	.261	-.030	-.081	.243	-.191
PMP ₃	.388	.477	.271	.016	-.035	.094	-.217
JS ₁	.298	.209	.110	.866	-.018	-.222	.042
JS ₂	.197	.207	.109	.868	-.019	-.166	.018
JS ₃	.090	.145	.101	.840	.018	.142	.016
JS ₄	.047	.137	.101	.879	.012	-.116	-.034
COM ₁	-.105	-.021	.107	-.110	.147	.109	-.101
COM ₂	-.185	-.002	.017	-.060	.185	.096	-.121
COM ₃	-.149	-.045	.026	-.106	.139	.393	.001
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a							
a. Rotation converged in 7 iterations.							

Table 5 (a): Rotated Component Matrix

Factor	Variable Items/Indicators	Items/Indicator Loading	% of Variance [Cumulative]	Eigen Value	Decision on hypothesis
Technology Facility	TF ₁	.880	17.392 (17.392)	5.391	Accepted
	TF ₂	.892			
	TF ₃	.883			
	TF ₄	.896			
Performance management Process	PMP ₁	.538	15.407 (32.798)	4.776	Accepted
	PMP ₂	.531			
	PMP ₃	.477			
Team Collaborations	TC ₁	.944	12.952 (45.750)	4.015	Accepted
	TC ₂	.932			
	TC ₃	.863			
	TC ₄	.880			
Job Satisfaction	JS ₁	.866	12.317 (58.067)	3.818	Accepted
	JS ₂	.868			
	JS ₃	.840			
	JS ₄	.879			

Managerial Cooperation	MC ₁	.971	10.167 (68.234)	3.152	Accepted
	MC ₂	.891			
	MC ₃	.701			
Training	TR ₁	.909	9.313 (77.547)	2.887	Accepted
	TR ₂	.796			
	TR ₃	.893			
Autonomy	AU ₁	.631	9.134 (86.680)	2.831	Accepted
	AU ₂	.915			
	AU ₃	.826			
Top Management Support	low loading (less than.50) & low Eigenvalue (less than 1): Table: 5 (a)				Rejected
Communication	low loading (less than.50) & low Eigenvalue is (less than 1): Table: 5 (a)				Rejected

Table 5 (b): Variance, Eigen Values & hypothesis test

- *H₁: Job satisfaction has positive effect on employee productivity in public sector. (Accepted)*

Job Satisfaction (JS), which accounted for 12.32 percent of the variance, was explained by four variables items (JS₁: I am pleased with the remuneration and benefits, JS₂: I obtain on-time promotion that boosts my output, JS₃: I am satisfied with my current job nature and service, JS₄: I am satisfy with my current performance). As it has an eigenvalue of 3.82 (more than one), Job Satisfaction is included as a factor affecting employee productivity in the public sector organizations. The factor loadings of the variables range from 0.84 to 0.87.

- *H₂: Technology facility has positive effect on employee productivity in public sector. (Accepted)*

The **Technology Facility (TF) Factor** accounted for 17.39 percent of the variance and is represented by four variables (TF₁: Have a very well-set IT system, TF₂: Regularly updates website that helps my productivity, TF₃: IT system leverage my productivity, TF₄: I can easily check the e-filing system to monitor the progress of work). The variable factor loadings range from 0.88 to 0.89. The technology facility is considered as a factor impacting employee productivity at public sector because it has highest eigenvalue of 5.39.

- *H₃: Managerial Cooperation has positive effect on employee productivity in public sector. (Accepted)*

Four items represent the **Managerial Cooperation (MC) Factor**. (MC₁: At any time, openly communicate my difficulty with my supervisor.) MC₂: During my

yearly evaluation, my supervisor addresses my strengths and weaknesses, MC₃: My supervisor typically recognizes my outstanding services) which accounted for 10.17 of the variance. The variable factor loadings range from 0.70 to 0.97. The Managerial Cooperation is a factor that influences employee productivity since it has eigenvalue of 3.15.

- ***H₄: Autonomy has positive effect on employee productivity in public sector. (Accepted)***

Autonomy (AU) Factor, which accounted for 9.13 percent of the variance, is represented by three items (AU₁: I have autonomy to make relevant decisions by myself within my task, AU₂: I feel a lack of work autonomy that hinders my productivity, and AU₃: I can share my opinions and thoughts in my areas of job). The factor loadings of the variables ranged from 0.63 to 0.92. Because it has an eigenvalue of 2.83, Autonomy is a factor that influences the employee's productivity in the public sector.

- ***H₅: Top Management Support has positive effect on employee productivity in public sector. (Rejected)***

Top Management Support is represented by four items (TMS₁: My organizations provide fullest support to deliver the job, TMS₂: Top Management takes care of any problems and difficulty to perform my task, TMS₃: Have access to all resources to do productive work, TMS₄: Aware of the management policies and procedures to perform the services) of employee productivity. The factor loadings of the variables are less than 0.50 and eigenvalue is also lower than one. Therefore, the hypothesis of top management support has been rejected.

- ***H₆: Team Collaboration has positive effect on employee productivity in public sector. (Accepted)***

Four items (TC₁: We believe in working in a team spirit, TC₂: Team members are highly polite in performing productive work, TC₃: Team leaders listen, consult, and accept my views, TC₄: Team members are cooperative to each other) made up the **Team Collaboration Factor**, which accounted for 12.95 percent of the variance. The variable factor loadings ranged from 0.86 to 0.94. Because it has an eigenvalue of 4.02, Team Collaboration is included as a factor affecting employee productivity in public sector organization.

- ***H₇: Training has positive effect on employee productivity in public sector. (Accepted)***

Training Factor is made of three variables (T₁: My organization provides adequate number of internal trainings, T₂: My organization provides adequate number of external trainings, T₃: My organization provides adequate training for new

joiners) which accounted for 9.31% of the variance. The factor indicator loadings of the variables ranged from 0.79 to 0.90. Training is identified as a factor affecting employee productivity in public sector since it has the eigenvalue of 2.89.

- ***H₈: Communication has positive effect on employee productivity in public sector. (Rejected)***

Communication is represented by three items (COM₁: We have a very well communication system from top to bottom, COM₂: We have a very well communication system from bottom to top, COM₃: I feel the lack of communication system hampers my productivity). The hypothesis is rejected because the eigenvalue of communication is less than one and factor loadings of all individual variable is less than 0.50.

- ***H₉: Performance Management Process has positive effect on employee productivity in public sector. (Accepted)***

The Performance Management Process, which accounted for 15.41 percent of the variance, is made up of three variables (PMP₁: My organization justifies my productivity at the end of the year through departmental assessment, PMP₂: I have enough scope to achieve 100 percent target according to my APA, and PMP₃: I am penalized if I fail to meet the productivity expectations). The factor loadings of the variables ranged from 0.48 to 0.54. Because it has second highest eigenvalue of 4.78, Performance Management Process is highlighted as a factor affecting employee productivity in the public sector.

8. Discussion on Findings

Top management support and communication have been shown to have little effect on employee productivity in public sector organizations. Regarding top management support, this may happen due to the level and interactions. In the public sector, there are a pre-defined set of operational processes that have little interaction with top management on daily basis to perform productive work. More importantly, the routine functions required mid-level supervisory support, leadership styles, teamwork and so on. Similarly, previous findings also revealed that management support may not always significantly and directly contribute to employee performance rather may moderate the HRM practices (Diamantidis & Chatzoglou, 2019; Ismail et al., 2021). In the case of communication, there is a physical and verbal process. The electronic filing processes cascaded in the line of work within a specific timeline of performing the task. The other form of communication like digital communication is very rare except few very important matters. Besides the bureaucratic process of work mostly hamper the level of communications and distortions. Moreover, while rendering essential services to the stakeholder's communication gap between stakeholders-superiors-subordinates were evident. This

research has affirmed the findings of previously researched that transitional communication is not a significant factor (Eka & Anik, 2020). The remaining seven elements (technology facility, managerial cooperation, autonomy, job satisfaction, team collaboration, training, and performance management process) all have a significant impact on employee productivity in the public sector. "Technology facility" was ranked top among the seven factors by employees for their productivity, while "performance management process" was ranked second. Technology enhances efficiency in employee performance and productivity. "Team Collaboration" is the third most influential factor on employee productivity. "Job Satisfaction and Managerial Cooperation are the fourth & fifth impacting variables, respectively. "Training" and "Autonomy" are the remaining two crucial components in employee productivity in public sector organizations.

9. Conclusion and Future Directions

The objectives of the present research were to investigate factors influencing the employee productivity in government settings. The key outcome revealed that out of nine factors, the seven factors are significant. Two factors like communication and top management support are not significant determinant. The productivity level of employee is the key driver where many components to be considered. In context of public sector organizations of Bangladesh, the identified factors are relevant to initiate future action plan. As every organizations play a key role from their functional corner to achieve the vision of the government. So, it is highly important due the nature of works of the sectors and contribution to the growth of emerging economy of Bangladesh. Relevantly, the government organizations can be more successful if there is high concentration to the people and their productivity.

The weakness of the current research may address for future directions as well. Therefore, the number of respondents was little to represent the large populations that can be addressed. The factors employed in the research can be more such as career commitment, work engagement, quality, supervisory style etc. and the methodology like longitudinal study, ranking of factors can be addressed in future to validate the outcome. Moreover, the consequences of absence of employee productivity can also study in future. Finally, the management research in the public sector is still sparse that demand future research in wider scope.

10. Implications of the Research

One of the prime contributions of the research is to identify the factors of employee productivity for the public sector. The academic literature may be enriched by adopting the outcome of the research specifically the complete understanding of employee performance and demand. Every effort of the firms is to ensure their performance but setting the sequence and priority is a must and foremost. The same

strategy may not always be effective for different business nature for example service and manufacturing. The result of the research will be a strong source for the managers and the leaders. The managers may focus the particular factors in their related field of work, department and branches, make their employees motivated, effective and new scope to increase their productivity level. The need for HRM practices will be sped up if they are willing to maximize the performance target. As the public sector still has limited research, so the managers may initiate this according to the functional and business priority. People in the public sector may work for a long time but skill development may be focused less which can come forward. More importantly, the communications and top management support can be addressed more so that employees can at least understand the role of the management and the importance of communications.

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EMPIRICAL STUDY ON THE IMPACT OF NATIONAL GOVERNANCE INDICATORS AND MACRO-VARIABLES ON FDI: EVIDENCE OF BANGLADESH

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Abstract

This study attempts to investigate the impact of national governance indicators and macro variables of Bangladesh on its own FDI. Five different governance indicators and three macro variables have been used and yearly data from 1996 to 2019 (total 24 yearly observations) have been used to form two multivariate regression model. The first model concerned with impact of governance indicators on FDI and found that voice and accountability, and control of corruptions are statistically significant variables that exert strong influence on FDI of Bangladesh. The second model captures the joint impact of both governance indicators as well as macro variables on FDI. In this model voice and accountability, political stability, and wage rate index have found statistically significant relationship with FDI. From this study, it has been revealed that governance indicators are sensitive factors in determining the level of FDI in any low or middle-income country like Bangladesh along with the influence from macro variables.

Keywords: FDI, governance indicators, macro variables multivariate regression.

1.0 Introduction

Foreign direct investment (FDI) is documented as a powerful engine for economic growth and sustainable development for any economy especially the developing ones. Inward FDI to the middle and low-income countries has the evidence as an essential factor to the economic growth, foreign reserve, growth of capital formation and infrastructure etc. (Ahamad M. 2010). It enables capital-poor countries to build up physical capital, create employment opportunities, develop productive capacity, enhance skills of local labor through transfer of technology and technical as well as managerial and technical know-how, and help integrate the domestic economy with the global economy. The key role of Foreign Direct Investment (FDI) in the economic growth is that it generates more benefits for the host countries rather than just full filling the shortage of capital in that country, (Borensztein et al. 1998). It is well documented that FDI has a significant contribution to economic growth in any country especially for developing economies. FDI contributes to block the gap between savings and required level of investment (Sabir and Khan. 2018). Increased globalization has contributed to the importance of FDI worldwide and endogenous growth theories emphasizes that it is one of the

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prime factors of sustainable economic growth. It is also a source of technological transfer from developed countries to developing countries (Chenaf-Nicet and Rougier 2016). The relationship between indicators of national governance and economic performance has attracted responses from scholars, researchers, and policy makers for the last few decades (Sabir and Abbas 2019). Thomas (1073) gives importance to the economic factors like capital accumulation, innovations and per capita income are not the only factors that creates a visible difference in a country's sustainable development and growth; well-planned changes in national governance indicators are also imperative for those difference. Considering this argument, an attempt has been made to measure the impact of national governance indicators on the volume of FDI in Bangladesh. In addition, few macro variables have added in this study to obtain a more reasonable and valid result.

This study is organized into seven sections. The first section presents the overall background of the study; the second section describes the objectives of this study; the third section discusses about the basic concept of FDI and its related components; fourth section presents the review of relevant literatures; the fifth section focuses on the methodologies and tools applied in this study; sixth section presents the analysis of the data and findings of that analysis and finally seventh section presents the conclusion of this research.

2.0 Objectives of the Study

Rapid industrialization is an imperative issue for Bangladesh to ensuring the speed of its growth and development. Allocational inefficiency of savings and investment and low level of technology base hinder the expected level of industrialization process. Foreign aids and grants had been serving to bridge the gap. As a developing country, Bangladesh is in the process of advancing from being aid-dependent country into a trading country, therefore, FDI is considered as critical incentive to economic growth in this country (Rayhan, A. 2009). This study attempts to identify the impact of national governance indicators and macro variables of Bangladesh on the magnitude of its FDI. Here, the broad objectives of this study is to investigate the national governance indicators and macro variables that exhibits strong statistical influence over the level of FDI's in Bangladesh. Objectives that are more specific include the following:

1. Identifying the status and trend of FDI by both total amount as well as specific components.
2. Estimating the statistical relationship between selected national governance indicators and volume of FDI in Bangladesh.
3. Computing the combined effects of national governance indicators and macro variables on the level of FDI in Bangladesh.

4. Describing the economic justification of the relationship estimated in objective 2 and 3.

3.0 The Components and Trend of FDI in Bangladesh

The term Foreign Direct Investment (FDI) states that investment made to acquire a lasting interest in an organization operating in foreign locations, the investors' motive being to have an operational control in the management of the organization. In other words, FDI is an international financial flow with the intension of controlling or participating in the management of an organization in a foreign country. According to the survey report on Foreign Direct Investment (FDI) of Bangladesh Bank (July- December 2019), There are three different components of foreign direct investment. These components are:

- i. Equity Capital: Remittances received by the incorporated or unincorporated enterprises doing businesses in Bangladesh on account of equity participation in those by the non-resident direct investors. Equity capital includes Ordinary shares of stock, Revaluation & Capital Reserves, Share Money Deposits, and Other Reserves.
- ii. Reinvested Earnings: It is the amount of profit reserved for additional investment.
- iii. Intra-Company Loans: It includes short or long term borrowing and lending of funds between direct investors (parent enterprises) and affiliated enterprises. The traditional differences between short and long-term maturity based on the formal criterion of original maturity retained.

Figure 1: Growth Trend of FDI in Bangladesh

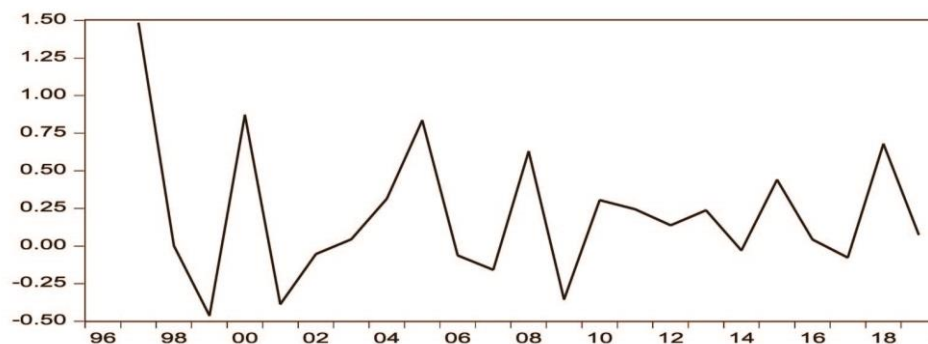
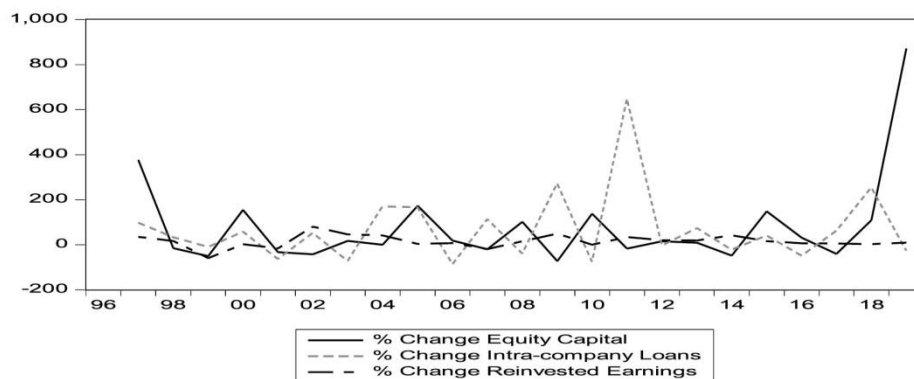


Figure: 1 depicts the growth trend of FDI in Bangladesh during the period from 1996 to 2019. In order to grab the maximum benefit of FDI, a country must do something for the positive and steady growth of FDI. Surprisingly, this graph shows

the opposite scenario. From 1996 to 2001 a sharp rise and fall takes place in FDI. Then a sharp rise is found up to 2004. After then between 2010 and 2014, a stable movement is observed. The sharp rise and fall in growth of FDI was found again from 2018 to 2019.

Figure: 2 presents the trend of the percentage growth of three different ingredients of FDI i.e. during the period from 1996 to 2019. This graph clearly shows that the equity capital growth is volatile between 1996 and 2002. After then a steady ups and down takes place in the following years. The highest level of growth fluctuation is observed in intracompany loans. But in the recent year, the growth of intra-company loans are decreasing. On the other hand, very negligible fluctuations are observed in growth of reinvestment earnings.

Figure 2: Percentage Growth of FDI Inflows by Components



4.0 Review of Literature

Foreign Direct Investment (FDI) is considered as an important device for economic development in any developing country (Aziz, Sarkar, and Mahmud. 2014). If the investing country is wealthier than the host country then capital will transmit to the host country (Zhao, 2003). It contributes to advancement of GDP; technology transfer; create employment generation, development of human resource, etc. It is also observed that FDI can play a significant role to reduce poverty of a developing country. There are good number of research study have carried out at the global level and domestic level to identify and determine the sensitive and influential macro factors of FDI in their respective economy. However, the study on the impact of national governance indicators on FDI is not very common. Few research studies have used the corruption level, political stability, freedom of expression etc. as the governance indicators of their respective countries and their research findings also vary from each other. Therefore, it is essential to examine the

influence of both national governance indicators and macro variables on the level of FDI in Bangladesh.

The empirical studies investigating the relationship between FDI and spread of corruption have mixed results. Bardhan (1997) states that the level of spread of corruption lessens bureaucracy, accelerates speed of investment, which results to quicker wealth accumulation. Bellos and Subasat (2011) found that a high corruption level is connected with the high level of FDI. This finding is in compliance with the efficient grease hypothesis which describe that corruption can improve efficiency and exhibit a positive impact on the level of investment. On the other hand, Woo (2010), Aparna and Kartikeya (2013), Alemu (2012) found that high corruption level prevents expected FDI inflows.

Egger P. and Winner H., (2006) analyses both the sign and development of the impact of corruption level on FDI. This study incorporate data set of 21 home country and 59 developed and less developed host countries between the period of 1983 and 1999. The author applied a panel data model that is known as knowledge-capital model of multinational activity. The findings reveals that there is negative relationship between corruption and FDI. The author also comments that corruption is an important weakness of FDI in developed economies but not in developing economies.

Mahmood (2018) has examined the macroeconomic determinants of FDI inflows of Bangladesh during the period from 1975 to 2015. Empirical results have been estimated using ADRL technique using five macroeconomic variables (i.e. democracy, GDP, inflation, interest rate, and trade openness). It has been found that democracy is positively affecting FDI in Bangladesh in the long run but in the short run it is insignificant. GDP impact is positive to DFI both in the long and short run. Interest rate has long run positive relationship with FDI. Finally, trade openness has negative relation with FDI both in long and short run.

OnyinyeUdenze. (2014), examines the empirical relationship between perceived corruption level and the net foreign direct investment (FDI) as a percentage of GDP over 73 countries from the database of World Bank Development Indicators from 2005 to 2011. Several independent variables like corruption, openness, GDP growth, inflation, have been used to run three different OLS models. The study concludes that low and middle-income countries out-side Sub-Saharan Africa have a negative regression coefficient between net FDI inflows and corruption perception index but is it not statistically significant. On the other hand, statistically significant positive coefficient was observed in the Sub-Saharan African countries.

Aziz *et al.* (2014) have studied and examined various factors (i.e. market size, productivity indices of industrial labor, and trade balance) to identify their impact on FDI in Bangladesh. Cointegration test has been applied and found that market size and trade balance is positive and significant to FDI inflows in Bangladesh. Labor productivity has been found positive but statistically not significant to FDI inflows in Bangladesh.

Khan and Mashque (2013) found a negative but statistically important relationship between political risk and the level of FDI. Based on 94 countries over a period from 1986-2009, they have found that most of the indicators describing the political risk have a negative association with FDI for the whole world and the high income countries but strongest negative association has observed in the countries of upper middle income.

Pinjaman S.B. *et al.*, (2019) have attempted to examine the relationship between government stability and foreign investment during the period from 2002 and 2019 for selected ASEAN countries (i.e. Cambodia, Brunei, Malaysia, Myanmar, Indonesia, Singapore, Thailand, The Philippines, and Vietnam). Random effect model was applied to examine that relationship. Seven different independent variables (i.e. voice and accountability, political stability, govt. effectiveness, regulatory quality rule of law, control of corruption and GDP) have been used to measure the relationship on foreign investment. It is found that voice and accountability and govt. effectiveness has negative but insignificant relationship with foreign investment. On the other hand, political stability; regulatory quality; rule of law; and control of corruption has positive relationship with foreign investment.

Muraleethanranet *al.* (2018) observed determinants of FDI by applying time series data from 1978 to 2015 in Sri Lanka. Inflation, GDP, interest rate, infrastructure and international trade volume used as explanatory variables. ADF test applied to check the stationarity in the data and ordinary least square regression model applied to know the relationship among variables. As per the result of this study, all attractive factors of FDI play a positive and significant role to crease FDI in Sri Lanka.

Tosun M.U. *et al.* (2014) examines the causal relationship among corruption, political risk, industrial production index, and FDI from the period between 192 and 2010. Cointegration and error correction model based on bound test approach has been applied to estimate these relationships. It has been found that both corruption and political risk Granger causes FDI inflows in the short run. The findings states that 'helping hand' type corruption is not found in case of Turkey. Moreover, increase in the political risk improves FDI in the short run.

Kim (2010) have examined the relationship between foreign direct investment and political stability by Factor Analysis. The author found that countries with high

political rights have increased FDI outflows and high level of corruption and low level of democracy have higher FDI inflows. The author also comment that political factors are essential for explaining FDI flows and level of corruption have positive relationship with FDI inward performance.

Kurecic P. and Kokotovic F. (2017) have studied the relevance of FDI on economic growth in three different panel. They have adopted Granger causality test and ARDL model for every panel. Based on the findings they have concluded that long-term relationship is present between political stability and FDI for small economies, on the other hand, no such findings was observed in developed economies.

Locas (1990) found an augmented level of FDI in countries with higher political corruption and grievance from cases of political instability. Jadhav (2012) has found no evidence that political stability has a long term relationship with FDI inflows for the BRIC countries. Haksoo (2010) has identified the influence of political stability on FDI and have suggested a pair of hypothesis: FDI inflows generally transmit towards countries that grievance from political instability while FDI inflows tend to move from politically stable countries.

The above literature reviews clearly exhibit the fact that the use of governance indicator to determine its impact on FDI is not common particularly for developing countries like Bangladesh. This investigation definitely contributes to minimize the research gap in this area.

5.0 Research Methodology:

This study attempts to magnify the impact of a list of Bangladesh national governance indicators and macro variables on the volume of foreign indirect investment (FDI) of Bangladesh. Two multivariate regression model have been formed to measure such impact. The first regression model is concerned with regression of selected national governance indicators of Bangladesh on the volume of FDI. There are five governance indicators i.e. Voice & Accountability (VA); Political Stability (PS); Government Effectiveness (GVE); Rule of Law (RL); and Control of Corruption (CC) have been used as independent variables. On the other hand, three independent macro variables i.e. Wage Rate Index (WRI); Gross Fixed Capital Formation (GFCF); and Inflation (INF) have been added in the formation of the second regression model. Yearly data from 1996 to 2019 (total 24 yearly observations) have been used in this analysis. All the five national governance indicators data have been collected from “The Worldwide Governance Indicators (WGI)” a project of World Bank (i.e. <http://worldbank.org/governance/wgi/>). As national governance indicators data are scaled data bounded by -2.5 (weak governance performance) and +2.5 (strong governance performance), this data have been equally portioned into ten parts which is presented in Table: 1.

Table 1: Splitting the Scaled Independent Variables

On the other hand, Bangladesh FDI data and macro variables data have been collected from ‘Monthly Economic Updates’ published by Bangladesh Bank. At first, descriptive statistics of each of the variables have been estimated. Then the multivariate regression model (Model-1) of Bangladesh national governance indicators on FDI has been estimated. Here regression coefficients for each independent variable have been estimated along with the model summary statistics.	Scale Value	Assigned Value	Interpretation
	Above + 2.5	12	Extremely Strong
	Above +2.00	11	Absolutely Strong
	Above +1.50	10	Very Strong
	Above +1.00	9	Strong
	Above +0.50	8	Moderately Strong
	Above +0.00	7	Simply Strong
	Above -0.50	6	Simply Weak
	Above -2.0	5	Moderately Weak
	Above -1.00	4	Weak
	Above -1.50	3	Very Weak
	Above -2.00	2	Absolutely Weak
	Above -2.5	1	Extremely Weak

ANOVA test has also carried out to measure the statistically significance of the regression model. In addition, tolerance value and variance inflation factor (VIF) have been calculated for testing the presence of multicollinearity among the selected independent variables. For measuring the regression estimate of Model- 2, similar procedure has been followed. A brief description of dependent and independent variables have been summarized in Table: 2.

Table 2: A Brief Description of Dependent and Independent Variables

Variable Name	Brief Definition
Foreign Direct Investment (FDI)	An investment from one country (home country) into another country (host country) in order to ensure substantial influence or control on the enterprises of the host country.
Voice and Accountability (VA)	It describes the degree to which the citizens of the country are able to participate in choosing their government as well as freedom of expression, freedom of association and a free media.
Political Stability	The computes the perceptions of the likelihood of political unrest as well as politically motivated violence including terrorism.
Government Effectiveness (GVE)	It measures the quality of public service, quality of civil service, and degree of independence from political pressure as well as quality of policy formulation.

Rule of Law (RL)	It measures the perception of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Control of Corruption (CC)	It measures the perception of the extent to which public power is exercised for private gain that includes both petty and grand forms of corruptions as well as capture of the state by elites and private interest.
Wage Rate Index (WRI)	It measures the movement of the nominal wages of low paid skilled and unskilled labor over time in different sectors of the economy.
Growth Fixed Capital Formation (GFCF)	It measures the volume of net investment of a country's resident in fixed asset during a given period. Fixed assets includes both tangible as well as intangible assets produced as output in the production processes that are used repeatedly for more than one year.
Inflation (INF)	It measures the average price level of a basket of goods and services during a specified period of time. It is usually proxied by the growth rate of consumer price index (CPI)

However, two multivariate regression model have been formulated based on the following specifications:

Multivariate Regression Mode -1

$$FDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GVE + \beta_4 RL + \beta_5 CC - - - - - (1)$$

Multivariate Regression Mode -2

$$FDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GVE + \beta_4 RL + \beta_5 CC + \beta_6 WRI + \beta_7 GFCF + \beta_8 IN - (2)$$

6.0 Analysis and Discussion:

The first multivariate regression model has been estimated and presented in appendix Table: 3. Five different national governance indicators have been used as independent variables and FDI has considered dependent variable. It has been found that VA and GVE have negative regression coefficients and the other three governance indicators i.e. PS, RL, and CC have positive regression coefficients. Out of these five regression coefficients VA, RL are found statistically significant at 5 percent level and CC has found statistically significant at 10 percent level. However, in order to identify the presence of multicollinearity among the independent variables Collinearity statistics [i.e. Tolerance value and variance inflation factor (VIF)] have been calculated. Here, the research convention is that if tolerance value shows a value greater than 1.0 and VIF value is greater than 10.0, then the regression is said to have multicollinearity among the independent variables. In appendix Table: 3 It is clearly observed that each tolerance value is less than 1.0 and VIF value is less than 10.0, therefore it can be said that the regression model -1 has no issue of multicollinearity problem among the independent variables.

The summary statistics of regression model-1 has been presented in appendix Table: 4. This regression model produced the R-squared value of 0.609 and adjusted R-squared value of 0.500. These results clearly describe that the selected independent variables can jointly explain net 50 percent variability in the dependent variable. In order to justify the statistical significance of the R-squared statistics, ANOVA test has been employed the estimates have been shown in appendix Table: 5. This ANOVA test simply describe that whether R-squared value is significantly greater than zero or not. Here p-value of the F-statistics is less than 5 percent which imply that R-squared value is statistically significant. That means the independent variables are able to account for a significant amount of variance in the dependent variable which implies that the regression model is significant.

The estimates of multivariate regression model-2 is presented in appendix Table: 7. Here the regression coefficient of VA and CC have been found negative and all other regression coefficients i.e. PS, GVE, RL, WRI, GFCF, and INF have been found positive. Among all the independent variables, VA and PS are found statically significant at 10 percent level and only one macro variable i.e. WRI has been found statistically significant at 5 percent level. In the similar procedure, multicollinearity among the selected independent variables have been tested by collinearity statistics. Here, tolerance value for each independent variable is less than 1.0 and VIF is also less than 10.0. Therefore, it can be said that, independent variables used in this model has no strong statistical association among them and the model is free from multicollinearity.

Appendix Table: 8 presents the summary statistics of the regression model-2. Here R-squared value is 0.913 and the adjusted R-squared value is 0.867. These statistics depicts that the selected independent variables can jointly explain more than 86 percent variability in the dependent variable i.e. FDI. At the end, statistical significant of the R-squared value has been tested by ANOVA test. Here, ANOVA test estimates are presented in appendix Table: 9. In this table, the p-value of the F-statistics is 0.000 which is less than 5 percent level. This estimates simply explain that the R-squared value (i.e. 0.913) is statistically significant at 5 percent level. Having this ANOVA test estimates, it can be concluded that, multivariate regression model-2 is also statistically significant and independent variables can jointly explain net 87 percent variability in the dependent variable.

In both of the two regression models, VA has a negative regression coefficient with FDI which is statistically significant. However, FDI is usually attracted by cheap labor cost, better investment climate and greater tax and other incentives from the government. In this case, to what extent, the participation of the country's citizen is reflected in the selection of the government is immaterial. Government can easily attract FDI by providing facilities like required logistic and infrastructural support,

tax incentives, congenial investment climate etc. This finding is consistent with Gholipour H. F. *et al.* (2011), Ojeka, S. *et al.* (2019).

In both regression model-1 and model-2 the coefficient of political stability is positive but it is not significant in model-1 but found significant in model-2. It is very likely that, a country with high political unrest results higher required rate of return for a foreign investor in any investment to be accepted. As political instability is an important component of country risk, foreign investor do not like to keep their investment in any country with higher country risk. As a result, political stability has been found as a good functional variable that can attract FDI in Bangladesh. This finding is consistent with Kim (2010) and Amalet *et al.* (2015) who states that political stability exerts an essential stimulus on the markets of business and environment and a relevant characteristic for long-term ventures like FDI. Sabir *et al.* (2019) states that political stability positively affects FDI in low and middle-income countries because foreign investors do not like to have anxiety from sudden policy reversal or changes. This finding is inconsistent with Locus (1990) who found an increased level of FDI towards countries that have corruption and suffers from instances of political instability.

Rule of law (RL) has a statistically significant positive coefficient in model-1 and in model-2 the coefficient is positive but not statistically significant. Basically, rule of law describes the extent to which the citizens of a country have trust on the rule of the society. In addition, the citizens have confidence on the quality of contract enforcement, property rights, and law and order conditions. When citizens are more likely to abide by the rules of the society, it contributes to expanding the required climate for the increased level of business activity in case of both domestic and foreign investments. As a result, the citizens' compliance to abide by the rules of the country also attracts the FDI from foreign countries. According to Hoff and Stiglitz (2005) rules and laws are usual sets of agreements based on which countries implement FDI policies that ultimately protect future returns. Sabir *et al.* (2019) also states that rule of law discourages market-unfriendly policies and minimizes risk.

Government effectiveness (GVE) has statistically insignificant positive coefficient in both of the two models. This finding is consistent with Sabir *et al.* (2019). It is likely to say the government in the form of public and civil functions that are free from political influence and pressure, inspires investment by individual entrepreneurs and foreign investors.

Control of corruption (CC) in this study generates a statistically significant positive coefficient in model-1 but in model-2, the coefficient is positive but insignificant. This finding implies that, the more it is possible to control the corruption, the more we can attract FDI in Bangladesh. This finding is consistent with Wei (2000) who found that the evidence of corruption reduces the inward FDI

stock. Habib and Zurawicki (2002) found evidence that corruption as well as the difference in corruption between the host and source country have a negative influence on FDI. Voyer and Beamish (2004); Egger and Winner (2006); Tobias Zander (2021); Alemu (2012); Woo (2010); and Aparna and Kartikeya (2013) also found the same negative relationship between the spread of corruption and the level of FDI.

Wage Rate Index (WRI) has a statistically significant positive regression coefficient in model-2. Increasing the nominal wages of the low paid skilled and unskilled labor is an indication of the improved and uninterrupted productivity from both domestic and foreign investment which is also backed by the growth of the economy. All these factors are mostly favorable for bringing more FDI from the source country. Growth Fixed Capital Formation (GFCF) has a positive but insignificant regression coefficient in model-2. This finding implies that large amount of GFCF can attract FDI in Bangladesh. It is true that an increase in gross fixed capital formation which comes from domestic as well as foreign investment strengthens the productive capacity of an economy which in turn also attracts more FDI from foreign country. This finding is consistent with Onyinye U. (2014); Behname (2012); and Alessia A. *et. al.* (2017).

Inflation rate (INF) is a crucial factor in determining the inflow of foreign investment. In this study, negative but statistically insignificant coefficient has been found for inflation in regression model-2. In many cases, it is argued that increased inflation results in a reduction of real returns on an investment thus discouraging foreign investors from entering the economy, and consequently, a lower level of FDI. This study has found a compliance with this argument. This finding is consistent with Coban O. (2019), Tsaurai, K. (2018), and Sayek, S. (2009) etc. Khan and Mitra (2014) states that high rate of inflation distorts the economic and investment activity, which ultimately depresses the inflow of capital.

7.0 Conclusion

FDI of Bangladesh is undoubtedly an important lime light variables based on which the country's economic performance can be measured. This study has made an attempt to investigate the impact on FDI of Bangladesh that are expected to exert from both of its governance indicators and macro variables. Voice and accountability, rule of law and control of corruption are found statistically significant indicator from the governance indicator side in regression model- 1. But when macro variables are added, then voice and accountability, political stability and wage rate index are found statistically significant. It is true that, this statistical evidence may differ on developing countries than that of developed countries. Government attitude to rule the country, investment and tax policy, monetary policy, investment climate may also

influence the level of FDI in any country. The findings of this study has revealed some important insight about the governance sector determinants of FDI in Bangladesh. Further in-depth study may explore some interesting evidence about the true determinants of FDI in Bangladesh.

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Table 1: Descriptive Statistics

Model	Variables Entered	Variables Removed	Method
1	CC, VA, GVE, RL, PS ^b	.	Enter
a. Dependent Variable: FDI			
b. All requested variables entered.			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1862.401	3626.901		.513	.614		
	VA	-1224.378	359.392	-.604	-3.407	.003	.691	1.447
	PS	18.328	212.933	.016	.086	.932	.599	1.670
	GVE	-691.118	798.870	.141	-.865	.398	.821	1.218
	RL	1318.728	627.363	.371	2.102	.050	.696	1.437
	CC	731.246	372.408	.373	1.964	.065	.603	1.657

Table 4: Multivariate Regression Summary Statistics (Model-1)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780 ^a	.609	.500	708.64141

a. Predictors: (Constant), CC, VA, GVE, RL, PS

Table 5: ANOVA On Regression Model-1

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14070609.044	5	2814121.809	5.604	.003 ^b
Residual	9039107.564	18	502172.642		
Total	23109716.608	23			

a. Dependent Variable: FDI

b. Predictors: (Constant), CC, VA, GVE, RL, PS

Table 6: Independent and Dependent Variables on Regression Model 2

Model	Variables Entered	Variables Removed	Method
2	GFCF, GVE, RL, CC, VA, PS, WRI, INF	.	Enter

a. Dependent Variable: FDI

Table 7: Multivariate Regression of National Governance Indicators and Macro Variables on FDI (Model-2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-922.882	1922.086		-.480	.638		
VA	-434.044	219.499	-.214	-1.977	.067	.495	2.021
PS	205.166	114.668	.184	1.789	.094	.551	1.814
GVE	94.715	429.423	.019	.221	.828	.759	1.318
RL	425.064	351.779	.120	1.208	.246	.591	1.692
CC	-119.125	225.510	-.061	-.528	.605	.439	2.276
WRI	.282	.039	.857	7.133	.000	.402	2.489
GFCF	27.008	51.167	.042	.528	.605	.923	1.084
INF	17.068	31.401	-.046	.544	.595	.814	1.228

a. Dependent Variable: FDI

Table 8: Multivariate Regression Summary Statistics (Model-2)				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.955 ^a	.913	.867	366.18085
a. Predictors: (Constant), GFCF, GVE, RL, CC, VA, PS, WRI, INF				

Table 9: ANOVA On Regression Model-2						
Model	Sum of Squares	df	Mean Square	F	Sig.	
2 Regression	21098390.347	8	2637298.793	19.668	.000 ^b	
Residual	2011326.261	15	134088.417			
Total	23109716.608	23				
a. Dependent Variable: FDI						
b. Predictors: (Constant), INF, GFCF, GVE, RL, CC, VA, PS, WRI						

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PATHWAY TO FINANCIAL INCLUSION THROUGH AGENT BANKING: OPPORTUNITIES AND CHALLENGES

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Abstract

This article aimed to explore the consequence of Agent Banking in enhancing financial inclusion. A convenient sampling technique was used to pick 10 banks out of 21 banks and the respondents were top and mid-level employees of 10 different banks who are involved in agent banking activities. The collected data were analyzed through SPSS. The study proposed that agent banking as a cost-effective, flexible delivery channel has created a huge impact for rural people, Banks and rural Economy such as, create awareness about financial literacy, increase the tendency of savings, improve the financial performance of SMEs, create new business in a rural area, generate employment opportunities and helps to empower the rural women. Further results revealed that to expand the geographic coverage as well as opportunities to collect more deposits, in the remote future uplift the financial performance, brand image of banks. Eventually, this policy will support to promote agent banking initiatives and motivate other banks to the adoption of agent banking to bring unbanked people, particularly from the disadvantageous region in emerging countries. The finding suggests that agent banking i.e. a tool or way of financial inclusion needs to focus on skills & Trained employees, policy initiative, increase the number of service providers, efficiently manage liquidity and creating awareness among the rural peoples so that they will be encouraged to open and retain account i.e. access to the formal financial channel in near future.

Keywords: Agent Banking, Financial Inclusion, Rural Economy

1. Introduction

Exclusion from the formal financial channel is considered one of the major difficulties to financial empowerment. Indeed, absence in entry to financial services like, credit and deposits shrinks families' capability to invest, save and retort to health shock (Aker and Wilson, 2013). Financial inclusion encompasses all activities that make formal financial services available, accessible and affordable to all sections peoples (Alliance for Financial Inclusion, 2017).

In general terms, financial inclusion is the percentage of individuals and companies that have access to formal financial services (Huefner & Bykere, 2015). Financial inclusion, which is generally definite as the part of people and businesses using financial services, has become a focus of considerable attention among

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legislators, academicians and other stakeholders (Global Financial Development Report, 2014). Financial inclusion measure by way of a proportion of adults (over 15 year) who report having at least one account in their name in an institution that offers a comprehensive set of financial services and is subject to some type of government regulation (Financial Inclusion Insights, 2017). Financial inclusion is defined to be a remedy for drop down poverty and income disparity (O. Nkuna, et al. 2018). Financial inclusion is way of adding underprivileged people in formal financial channel through the services of low charge in credit and appropriate service delivery (Rangarajan, 2008). Rahman (2018) described that financial inclusion has evolved into the tactical way for accomplishing Sustainable Development Goals (SDGs) because it's raise savings mentality, mitigating financial risks, build an attitudes towards access of formal financial channel and gaining financial empowerment. He mentioned that Central Bank recognized financial inclusion as a vital part of monetary policy. Financial inclusions enrich the financial situations and improve the living standards of poor and less advantaged people. Moreover it creates multiplier effect in the economy like rise economic activities and employment when it is promoted widely in the perspective of economic inclusion (Khan, 2011). Income inadequacy is not only the determinant of poor people but also the deficiency of competencies to affiliate themselves with the economic and political systems. Financial inclusion involved socially deprived people accumulation in the formal financial channel by generating opportunities for all (Sen, 2000).

According to Bangladesh Bank, 81% percent of the adults in Bangladesh are unbanked i.e. only 19% of the total adults have access to banks. Among these 19%, 14% belong to urban areas i.e. only 5% of rural adults have access to banks. This denotes a massive untouched market for commercial banks. According to World Bank report (2015) out of total population in Bangladesh, 66 percent peoples live in the rural area of that most of do not have a bank account. As the majority in the rural areas are unbanked and characterized by lack of financial education, traditional banks often face hard times in reaching these customers especially in the rural areas. Further, Further, Opening and functioning traditional bank branches are not economical for serving low income customers in distant places. This is one of the causes banks are reluctant to open rural branches (Kabir, Islam & Inam, 2013). Customers in rural areas also have to move long distances to find the particular bank branches. In such situations, agent banking is a promising option for providing banking facilities through a set-up of bank representative like a physical bank branches. It is tremendously useful as the travel distance, for instance to a retailer, is likely to be much shorter for a bank. Agent banking plays a significant role in bridging the financial inclusion gap around the worldwide.

In 1999, Brazil developed the agent banking model. Now a day, it is gained more popularity everywhere in the world particularly in developing nation. Other countries

in Latin America like, Peru 2005, Colombia and Bolivia 2006, Ecuador 2008, Venezuela and Argentina 2009 successfully followed this agent banking model. This banking model is also popular in Pakistan, Kenya, South Africa, Philippines, Uganda and India (Mwenda and Ngahu, 2016). Although the Bangladesh Bank issued the policy in 2013, the banks started complete agent banking operations in 2016. Agent banking started off with 10 banks; and now 19 commercial banks run agent operations (Bangladesh Bank, July - September quarterly report - 2019). The purpose of being familiarizing with correspondent banking is to offer a secure and reliable alternate delivery method for banking services to poor people who generally live in remote zones and cannot be enclosed by traditional banking networks. This technique is attained more acceptance as a profitable distribution channel for banks and a suitable way to provide banking services to customers. Finally, the banks will grow their business and increase financial inclusion using intermediaries as agents (Bangladesh Bank, Guideline on Agent Banking, December 09, 2013).

2. Theoretical Discussion

2.1. Bank-led theory

Lyman, Ivatury and Staschen established the bank led theory in 2006 and the basic concept of this model is branchless banking. According to this model, a certified financial organization delivered financial services by an agent. Lyman et al. (2006) termed agents maintain the relationship or interact with customers but products or services have been developed by banks. Retail agents have face-to-face contact and perform the functions cash in / cash out, similar to branch bank that collect deposits and process withdrawals (Owens, 2006). In some countries retail agent manage all account opening process, savings scope and in certain situations, provide loan facilities to the customers. It provides a clear alternative to outmoded banking services as customers conduct financial transactions through retail agents rather than branches (Lyman et al., 2006). It is possible to significantly upturn the coverage of financial services by using diverse distribution channels, business partners with different experiences and target markets (unlike from outmoded banks), and can be much cheaper than banking alternatives (Tomaskova, 2010). Banking regulation generally identifies multiple categories of risks that the banks' regulatory and supervisory bodies are trying to lessen the effects of those risks. Five of these risks - credit risk, operational risk, legal risk, liquidity risk and reputational risk - are particularly important when customers use retail agents instead of bank branches to access banking services. The practice of retail agencies may similarly raise specific concerns related to consumer protection and compliance with anti-money laundering and terrorist financing rules (Kumer et al., 2006).

2.2. *Non-Bank-Led Theory*

According to Non-bank led theory, customers are not dealing with a bank and they do not manage bank accounts. They contact with a non-bank organization that may be mobile operator, retail agent etc. (Layman et al., 2006). Kumar et al. (2006) suggested that customers can exchange their cash in e-money warehoused in an online e-money account on the non-bank server, which is not tied to a bank account on behalf of the persons. Kapoor (2010) recommended that at higher risk because the regulatory environment in which these non-bank businesses are located may not pay much attention to issues related to customer identification, clear paper work and records keeping that are prerequisites for establishing a secure financial system.

2.3. *Bank-Focused Theory*

Bank focused theory highlight that provide banking services to their current customers by using inexpensive non-traditional delivery methods, such as ATM, mobile banking and e-banking. This model proposes various benefits like, better control and brand visibility for the financial institutions, but which has some challenges. Because, the main concerns of customers are the quality of experience, the security identity and transactions, the trustworthy and ease of access of service and level of customization permitted. Banks need to solve these problems for providing branchless banking services through user friendly interface and ensure the security by using multifactor verification (Kapoor, 2010).

2.4. *Agency Theory*

At first, Stephen Ross and Barry Mitnick developed the agency theory in 1970s. Agency relationships include one or more peoples (principal) who employ a different person (representative) to provide services on behalf of them. This means that certain decision-making powers have been given to the agency (Meckling & Jensen, 1976; Jensen, 1976). Mitnick, (1973) identified various forms of agency relationship are employer (principal) and employee (agent); state (principal) and ambassador (agent); constituents (principal) and elected representative (agent); organization (principal) and lobbyist (agent) and shareholders (principal) and chief executive officer (agent) (Mitnick, 1973). A banking institution is defined as a company that is outsourced by a company to sign a contract with a financial institution, get authorization from a central bank, or deliver services to a financial firm on behalf of a financial institution which is regulated by the central bank. The Central Bank of Kenya was introduced agent banking model in May 2010 that permits third parties to propose certain banking services to customers on the side of commercial banks (Central Bank of Kenya, 2010).

2.5. *Development Theory*

Development theory (Comparato, 2015; Panday & Raman, 2012) suggested that access to and use of financial services is essential in both individual and firm level to defeat the discrimination, deprivation from formal financial channel and for realizing the wider economic development.

3. **Literature Review**

Kerich (2015) agent banking provides banking services to customers through a third party in favor of banks by licensed branches. Kitaka, (2001) it is a cost-effective and more flexible delivery channel for providing financial services among the populations where difficult-to-reach, geographically detached area and banks have not enough incentive or capacity to establish. Dondo (2003) the amount of transactions through agent banking is not huge because this facility is to serve in a poor or remote area. In that reason, it is not easy to make profitable for banks and agents. However, in long-run there is possibility to increase the number of customers and as well as collections of deposits. Podpicra, (2008) signifies that agent banking grows the economics conditions of the financial institutions or banks. Adera, (1995) fresh delivery model is a technique to uprisng the economics scenario and encourage to savings of the remote area's peoples. Atieno (2001) agent banking provides all sort of banking services in a small scale by using retail or postal outlet. Christopher (2002) described that agent banking ensure to entrepreneurs and low-income people more relaxed banking services at their native area than traditional banking. Kasekende, (2008) there is a problem or risk of supervision because large number of agents delivers financial services, where bank supervised indirectly. Rahman, (2016) described that agent banking helps to geared up the SME sector. Different activities of SME sector like, fund transfer, business dealing and others activities have become easier and smooth without any middlemen dependency. Atman, (1993) agent banker's need not to be confined in tangible attributes of market offerings rather think about brand loyalty. Brand loyalty holds in customers mind and it is created by agents. For this reason, agent bankers should always take in account what promises are attracting more customers and maintain the promises accordingly. According to research conducted by Panturo (2019), introducing Agency Banking in Uganda – agency banking enables to reduced travel time as well as better financial inclusion and increased ease of formal financial services. Atandi, (2013) technology and institutional innovation, financial literacy, lack of capital, concern of insecurity and fear of robbery are the main challenges of agent banking. Mwando, (2013) agency banking had positive impact on the financial performance of commercial bank due to its low transaction cost, more financial service accessibility and growth of market share. Bizah et al (2017) it is an influential tools in order to derive financial inclusion due to its ease accessibility and less cost. Side by side it has related with few

difficulty like, agent selection, training and monitoring. Afande et al (2015) four factors such as availability of liquidity, geographic coverage, cost and security of correspondent banking services have a positive and significant relationship with financial inclusion. Lehman (2010), building network, managing liquidity and channel were the core operational challenges of agent banking to make it feasible. According to the study of Clara Veniard (2010) agent banking systems are cost effective operations than branches. It has only 2 percent to 4 percent costs of a bank branches to set-up costs of an agent.

4. Methods

The survey questionnaire was designed by using simple and impartial language so that participants can certainly realize the questions. As an efficient financial inclusion tool, opportunities and challenges of agent banking were measured through 32 questions. Questions used to measure the opportunities and challenges of agent banking were adapted from previous study with slight modification. A 5-point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree) has been used for all variables. A convenient sampling technique was used to choose 10 banks out of 21 banks and the respondents were top and mid-level employees of 10 different banks who are involved in agent banking activities. The collected data were analyzed through SPSS. A multi-theoretical framework has been adopted in which the research is comprised of bank-led, non-bank-led, bank-focused, agency and development theories.

5. Development Scenario of Agent Banking

Table 1: Development Scenario of Agent Banking in Bangladesh

Particulars	2016	2017	2018	2019	2020
Bank With license	14	18	21	24	28
Bank in operations	10	14	19	21	26
Number of agents	1,646	2,577	4,493	7,856	11,925
Number of outlets	2,601	4,157	6,933	11,320	15,977
Number of accounts	5,44,536	12,14,367	2,456,982	5,268,496	9,643,163
Number of Female accounts	1,59,149	3,78,951	850,247	2,297,775	4,398,122
Amount of deposits (BDT lacs)	38,068	1,39,938.96	311,240.60	751,716.22	1,597,725.50

Amount of loan disburse (BDT lacs)	0	10,884.47	18,948.89	44,600.63	189,315.75
Amount of inward remittance (BDT lacs)	30,956	1,98,201.82	555,742.47	1,553,431.86	4,880,634.58

Source: Bangladesh Bank Quarterly Report Agent Banking Activities in Bangladesh [2016 - 2020]

Bangladesh Bank is working persistently to appreciate the vision of “inclusive finance” to make banking service convenient for under-served households and institutions. In this connection, Bangladesh Bank has recently taken one more initiative to launch agent banking. It began with 10 banks. Now, 26 commercial banks operate agent banking activities with 15,977 outlets under 11,925 agents. Table 1 shows that from 2016 to 2020 the number of accounts increased from 5,44,536 to 9,643,163 and with the deposits from Tk.38,068 lacs to Tk. 1,597,725.50 lacs. Data shows that inward remittance of about Tk. 4,880,634.58 was channeled through agent banking across the country up to December 2020.

6. Data Analysis

Table 2: Demographic profile of the respondents

Profile	Groups	Frequency	Percent (%)
Gender	Male	8	80
	Female	2	20
Age	25 to 30	1	10
	31 to 35	3	30
	36 to 40	4	40
	Above 40	2	20
Marital Status	Married	9	90
	Single	1	10
Employment position	Top-level	7	70
	Mid-level	3	30
Agent banking brings the rural people under banking services	Yes	10	100
	No	0	0

Source: Field survey

The descriptive statistics of the demographic profile (see table 2) of the respondents are as follows. Demographic information shows 80% respondents are male and remaining 20% are female. Employment position of the respondents are top level 40% and mid-level 40%, only 20% are holds others position. 90% respondent bankers are married and only 10% are single. 90% respondent banker's aged above 30 years. All the respondents believed that agent banking brings the rural people under the umbrella of banking services.

Table 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.762	.796	32

Table 4 –Perceptions of Banker's on Agent Banking Opportunities

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Rank (Based on Mean value)	Cronbach's Alpha
It is convenience for rural people	4.70	0.48	-1.035	-1.224	2 nd	0.753
I think it is powerful tool of financial inclusion	4.30	0.83	-.687	-1.043	5 th	0.743
It is possible to expand the geographic coverage	4.70	0.49	-1.035	-1.224	2 nd	0.764
I think it is possible to capture the new customers	4.30	0.49	1.035	-1.224	5 th	0.756
It create the employment	4.00	0.82	-1.531	4.500	7 th	0.745
I belief that develop of agent banking is expected to lead to improve financial performance of SMEs of rural area	4.00	0.94	.000	-2.129	7 th	0.743

Agent banking is profitable for commercial banks in terms of monetary	4.00	0.67	.000	.080	7 th	0.749
Agent banking is profitable for commercial banks in terms of non - monetary (brand image)	4.20	0.43	1.779	1.406	6 th	0.750
Agent banking reduce the cost of delivery financial services to unbanked peoples	4.80	0.42	-1.779	1.406	1 st	0.763
I think it helps to create new business in rural area	4.20	0.63	-.132	.179	6 th	0.747
Rural or village people enjoy the agent banking facilities	4.30	0.67	-.434	-.283	5 th	0.736
To reached the poor marginalized unbanked peoples	4.40	0.52	.484	-2.277	4 th	0.748
To increase sales on loans and other borrowings	4.00	0.67	.000	.080	7 th	0.770
It create opportunities to collect more deposits	4.60	0.52	-.484	-2.277	3 rd	0.760
To create awareness about financial literacy among the unbanked peoples	4.30	0.48	1.035	-1.224	5 th	0.758
It increase the tendency of savings among the people	4.80	0.43	-1.779	1.406	1 st	0.763

It create the employment opportunity in the region	4.20	0.63	-.132	.179	6 th	0.762
It helps to empowered the rural women	3.90	1.10	-.388	-1.236	8 th	0.780

Source: Data collected from Field Survey (Author's Calculation)

Table 5 –Perceptions of Banker’s on Agent Banking Challenges

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Rank (Based on Mean value)	Cronbach's Alpha
Lack of publicity of agent banking	3.20	1.03	.272	-.896	5 th	0.758
Policy initiative is not sufficient	3.40	1.18	.041	-1.457	4 th	0.729
Lack of knowledge of rural people on agent banking	3.80	0.79	-1.290	2.985	3 rd	0.780
Lack of services facilities	3.10	0.74	-.166	-.734	6 th	0.759
Limited number of banks provide this service	3.90	0.88	-1.018	1.831	2 nd	0.748
Lack of collaboration between agent and bank	2.50	0.98	-.454	-.516	10 th	0.775
Liquidity management	3.80	0.92	-.601	.396	3 rd	0.747
Lack of skills and trained employees	4.40	0.52	.484	-2.2	1 st	0.763
Possibility of fraud and theft	2.60	1.35	.583	-.756	9 th	0.765
Lack of necessary tools and techniques	2.70	1.06	1.444	1.258	8 th	0.738
Loss of customers asset and records	2.40	0.97	.813	-.022	11 th	0.750

Lack of trust among the rural peoples	2.90	1.10	.863	-.522	7 th	0.740
Possibility of system and hardware failure	3.20	0.92	-.473	-1.807	5 th	0.781
Reputational risk	2.90	1.37	-.104	-1.169	7 th	0.756

Source: Data collected from Field Survey (Author's Calculation)

Reliability of all items is measured through Cronbach's alpha and the threshold value more than 0.70 (Nunnally, 1978). Table 4 & 5 shows the Cronbach's alpha for individual variables are range from 0.729 to 0.781. Every items of the study are reliable.

Table 4 & 5 shows the descriptive statistics for the items of opportunities and challenges of agent banking indicated that the means were in the range 4.80 to 3.90 & 2.40 to 4.40 respectively. The standard deviations were in the range 0.42 to 1.10 & 0.74 to 1.37 correspondingly. Standard deviation showed there are the normal distributions. The relatively high standard deviation value indicates that the challenges of agent bank were rated to be low i.e. they are not agree to the researchers. Data normality assesses through the Skewness and Kurtosis and the cut-off value between -2 to +2 (George & Mallery, 2010). Table – 5 indicates, all the items value lies between - 2 and + 2. So, it is proved that data normally distributed.

From table - 4 the mean value shows, the greater number of participants strongly agree that agent banking bring or create huge opportunities for rural areas, banks as well as play vital role to the economic development Bangladesh such as to expand the geographic coverage, to capture the new customers, generate the employment, lead to improve financial performance of SMEs in rural area, increase profitability, improve brand image, reduce the cost of delivery financial services to unbanked peoples, to create new business in rural area, rural or village people enjoy the agent banking facilities, increase sales of loans and other borrowings, opportunities to collect more deposits, to create awareness about financial literacy among the unbanked peoples, increase the tendency of savings among the people, create the employment opportunity in the region, helps to empowered the rural women.

Table 5 shows that, most of the respondents strongly agreed that skills and trained employees (M = 4.40; SD = 0.52), limited number of banks provide this services (M = 3.90; SD = 0.88), liquidity management (M = 3.80; SD = 0.92), policy initiative is not sufficient (M = 3.40; SD = 1.18) and finally lack of knowledge of rural people on agent banking (M = 3.80; SD = 0.79) are the major obstacle to provide smooth services through agents (M = 4.40; SD = 0.52). The respondents did not give any opinion regarding the question that lack of publicity (M = 3.2; SD =

1.03), lack of services facilities ($M = 3.10$; $SD = 0.74$), possibility of system and hardware failure ($M = 3.20$; $SD = 0.92$); Last of all, the respondents disagreed that lack of collaboration between agent ($M = 2.5$; $SD = 0.98$), possibility of fraud and theft ($M = 2.6$; $SD = 1.35$), lack of necessary tools and techniques ($M = 2.7$; $SD = 1.05$), loss of customers asset and records ($M = 2.4$; $SD = 0.97$), lack of trust among the rural peoples ($M = 2.90$; $SD = 1.10$) and reputational risk ($M = 2.9$; $SD = 1.37$).

Table 6: Agent banking is a powerful tool of financial inclusion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	2	20	20	20
	Agree	4	40	40	60
	Strongly agree	4	40	40	100
	Total	10	100	100	

Source: Data collected from Field Survey (Author's Calculation)

The table summarized that 80% respondents' bankers think that agent banking is a powerful tool of financial inclusion and remaining 20% bankers are neither agree nor disagree agent banking as a strong financial tool.

7. Conclusion

Finally, a comprehensive effort by the government, Bangladesh Bank, commercial banks, MFIs and mobile phone companies will facilitate the peoples to aware the choice of agents for enjoying the variety of financial services. It can create wonders in terms of financial inclusion and improved financial activities. If the booming banking industry makes unremitting efforts by following the proper guidance from the central bank, correspondent banking can be an effective instrument to enhance financial inclusion and realize the vision of no poverty in Bangladesh. Agent banking is gaining popularity among village women, micro entrepreneur, and recipients of foreign remittance. However, agent banking services have a noteworthy influence on financial inclusion and close the market gap which is arise due to inadequate branch banking facilities in rural area. As, agent banking services are not only provide fundamental banking services like, cash deposits and withdrawal but also it is predict that this innovative delivery channel will energize the rural economy.

8. Limitation and future study

The study is confined to bankers' views who are involved in agent banking operations. The working individuals in agent outlets or people who enjoy the agent banking services may differ from the bankers' view in terms of experiences and characteristics.

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CROSS-BORDER REGIONS AS POTENTIAL AND EMERGING TOURIST DESTINATIONS FOR TRADE IN SERVICES: A STUDY ON SUNAMGANJ BORDER IN BANGLADESH

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Abstract

Cross-border trade in services is quickly expanding, with developed and developing countries. As a part of the trade-in services, cross-border tourism can play a significant role in the context of the Bangladesh-India border region. There is an excellent potential for developing tourist circuits involving all the border sites of Bangladesh-India. Altogether, it offers attractive opportunities for the growth and development of the Border Tourism and Hospitality Industry. Although they have a lot of tourism potential, these locations are economically underdeveloped, with low living standards and limited job opportunities for the border populace. As a result, tourism industries in Bangladesh-India border destinations have not grown much. Therefore, tourism education and infrastructure development are urgently required to help attract tourists to the desired border destinations. This research recommends that tourism in the border areas of Bangladesh can produce benefits that stimulate growth in border areas. The purpose of this study is to look at the tourism potentials of border destinations in the Sunamganj border area under the overall context of the Bangladesh-India border region and make recommendations for its development. Data was collected from the local population of the border area through a Self-Administered Questionnaire. The result of the study states that; cross-border tourism is flourished by creating job opportunities for the local people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationships. Thus, cross-border tourism as a part of cross-border trade can help develop better border management between Bangladesh and India.

Keywords: Trade in Services, Tourist destination, Cross-border cooperation, cross border trade, cross-border regions, tourism development, cross-border areas in Sunamganj.

1. Introduction

The impact of tourism and travel on a country's economic and community growth can be enormous: opening it up to commerce, trade and capital investment, providing jobs and encouraging entrepreneurialism within the workforce and safeguarding heritage and cultural values. Travel and tourism generated US\$ 9170 billion which is 10.4% of global GDP and created 334 million jobs for the global

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economy in 2019 (World Travel & Tourism Council, 2021). Tourism has played a vital role in destination development. "Developing a network approach of countries in terms of economy generation has also created the opportunities for tourism participating industries to set the standard at the international level" (Manhas et al. 2014). Cross-border tourism as a part of the trade-in services needs important focus and priority for local and national economic development. Cross-border tourists interact with each other in a specific interest like regional issues (Dunets, et al. 2019). Cross-border tourism contributes to alleviating the negative impacts in the border area and helps to improve the socio-economic and cultural situations of the respective countries.

Bangladesh is a stunningly beautiful country. Endowed with a bountiful variety of tourist attractions, border sites offer vast potential for growth in this sector with spectacular sights that provide visual delight. The destinations are especially having huge potential in eco-tourism, religious tourism, heritage tourism, hill tourism, rural tourism etc. To attract international and domestic tourists, the country needs good strategic management. One of the most crucial components for the local tourists is a change of habit to tour new parts of the country. It is also essential to have a foreign tourist atmosphere and other associated facilities to be worthwhile sites to visit. Both the government and the business sector may be willing to participate in the growth/development of tourism infrastructure. As a result, it will generate employment and add value to its gross domestic product. Although there have been government and corporate initiatives, there is still a long way to go in terms of expanding the tourism sector. The tourism sector must develop efficiency and effectiveness, which necessitates strategic leadership, strategic formulation and strategic implementation.

Sunamganj's border areas have a lot of natural tourism potentiality. Tourists should take advantage of various limestone sites, mountains, lake, rivers, rich local cultures and other pristine tourism attractions. There is also great potential for development of tourist circuits. From the standpoint of cross-border tourism potentiality, the prospects of cross-border collaboration for boosting the competitiveness of tourism destinations is also addressed in this study. The main objectives of this study are to analyze the tourism potentials in the border destinations of Sunamganj under the overall context of Bangladesh and provide recommendations for the development of cross-border tourism.

2. Literature Review

The state border is defined as a "dividing line between the territories of two states" by thesaurus dictionaries (Manhas et al. 2014). Artemenko (2010) stated that,

cross-border systems can be developed as an integrated one having shared impact of two or more countries located on opposite sides of the borders and shared common geopolitical interests between neighboring states. These lines are objectively existing and unconditional in the current world. The border is an institution that serves as a functional barrier between states, allowing for the management of human flows and the regulation of cross-border trade, but also allowing for the facilitation of interactions and exchanges (Hageman et al. 2004). Cross-border tourism between neighboring states are yet to be thoroughly investigated in the previous studies (Hampton 2009). Border regions are frequently rural and/or remote areas where tourism is frequently considered a vital instrument for economic growth. Timothy (2001) distinguished the three-dimensional correlation among destinations lying on both sides of a political border (Figure 1).

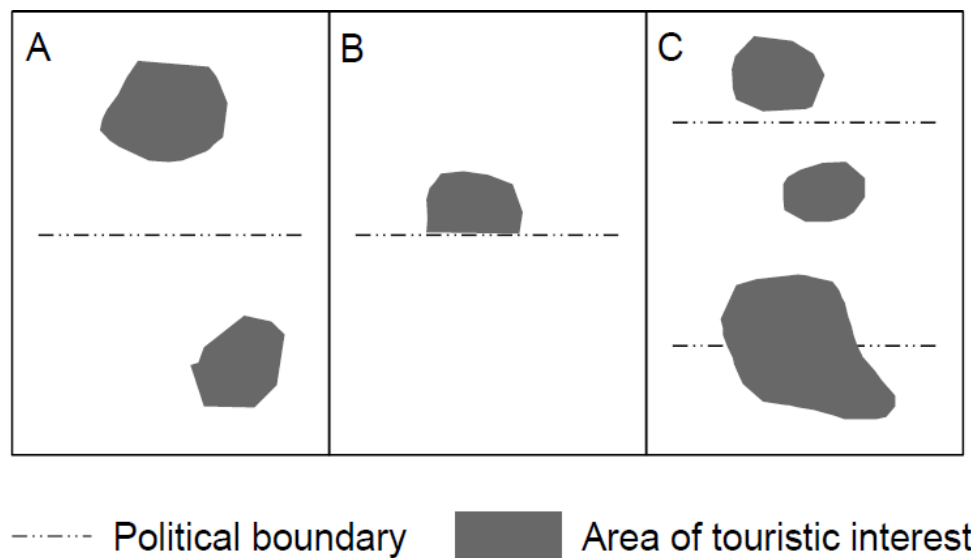


Figure 1: Cross Border Tourism and Political Boundaries Sources; Timothy (2001, p.76)

In scenario A, two state destinations are situated within a specified space of the border; while only one side of the border has a tourism destination in case of scenario B. There are just a few choices for border tourism development in these two scenarios. Only in case of scenario C, when two or more destinations are near to the border, or where the border splits one destination, is favorable for cross-border tourist development (e.g. a continuous natural setting such as a low mountain range). Timothy (2013) identifies three scenarios when it relates to the impact of a border that can have on the types of tourism activity on both sides (Figure 2). These are mostly determined by the degree of border permeability and the level of cooperation between stakeholders on both sides:

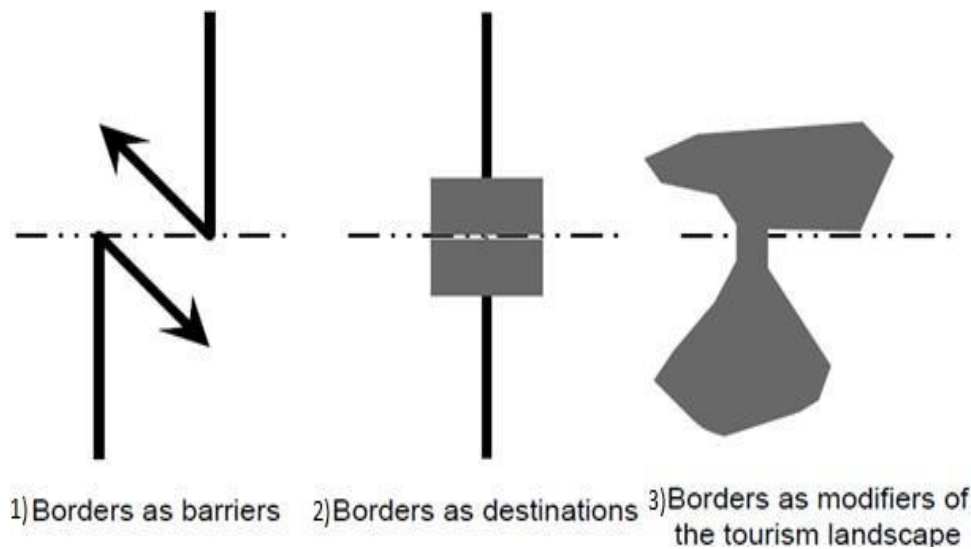


Figure-2: Topology of Border; Sources: Timothy (2013; p.106)

The role of the border in tourism has commonly been known as destination and attractions, impairments, and landscape modifiers (Timothy et al., 2016). According to Timothy (2001) “tourist attractions related to borders and border areas include, but are not limited to, border-themed attractions, heritage tourism, vice (e.g., gambling, prostitution), natural attractions and international parks, shopping, political and socio-cultural difference across the border etc.” Baggio (2008) stated that, socio-ethnic and economic resemblances is the pre-condition for developing cross-border tourism. Dallen et al. (2016) stated that, borderlines display most of their appeal in six different ways. It includes interesting landscape such as walls, fences, tower and others; attempting to see the lifestyle of forbidden zone; attractions site separated by a border like a beach, archeological sites; natural and cultural sites divided by the border; border themed attraction facilities developed for commercialization; and thousands of examples where borders are remembered and expanded as heritage sites and attractions (Blasco et al., 2014; Timothy and Gelbman, 2015).

In most situations, cross-border areas have great tourism resource potential. They usually have a natural environment that is unusually well preserved. Mountain ridges and summits, rivers, lakes, and other natural locations that have traditionally functioned as a natural physical barrier to free passage are viewed and/or visited by tourists. People's attention is now being drawn to the aesthetic aspects of these natural resources, which are critical for the expansion of eco-tourism, as well as nature tourism, hunting tourism, photography, wildlife observation, and other types

of tourism. Anthropogenic tourism resources are also available. Typically, they are fortification facilities. The Great Wall of China is the most spectacular example in this regard. Church (2004) identified that “the greatest advantage of cross-border territories is the diversity they offer. Tourism is increasingly viewed as an opportunity for the economic revitalization of cross-border areas. In this connection, cross-border routes for cultural, wine, religious, natural and other types of tourism are being developed.”

This study was undertaken to address the potentiality of Bangladesh-India cross-border tourism based on the aforementioned literature review. Sunamganj is one of Bangladesh's most well-known tourist attractions, with thriving tourism industry. In Bangladesh, there is a lot of room for cross-border tourism. The natural and artificial tourism potentials of Bangladesh and India border territories are abundant. Tourists should take advantage of various pristine mountain peaks and monuments, rivers, rich local cultures, religious sites, and other unspoiled tourism features. Despite the foregoing, studies on the potential and competitiveness of cross-border tourism destinations in Bangladesh-India border regions have mostly been ignored. Recent studies have focused on the benefits and limitations, focusing on visitors in border regions. All of these point to an area with a lot of study potential. In this context, the current study examines the concept of border, discusses the relationship between tourism and cross-border territories, and assesses the potential for developing specific types of tourism in Bangladesh-India cross-border areas, with the Sunamganj border of Bangladesh serving as a case study/test project.

3. A Study on Tourism Potentials of Sunamganj Border Area in Bangladesh

3.1 Sunamganj has already established itself as a significant tourist attraction, having a favorable impact on its economy as the number of local and international tourists visiting the area has gradually increased. Sunamganj district, on the Bangladesh-India border, is rich in tourism attractions and has a lot of room for expansion in this industry. Sunamganj is one of the country's water-based (Hawor) districts, covering 3,669.58 square kilometers. However, with its natural beauty of lustrous green valleys and hill ranges covered in diverse flora and fauna, the fascinating blend of culture, glorious cultural and historical sites, religious sites, and traditional art and craft, this ancient district is in a highly advantageous position for tourism development. The tourism potential of the entire area is enormous, particularly in eco-tourism, religious tourism, heritage tourism, hill tourism, and rural tourism. Main tourism potentials of Sunamganj Border related areas are:

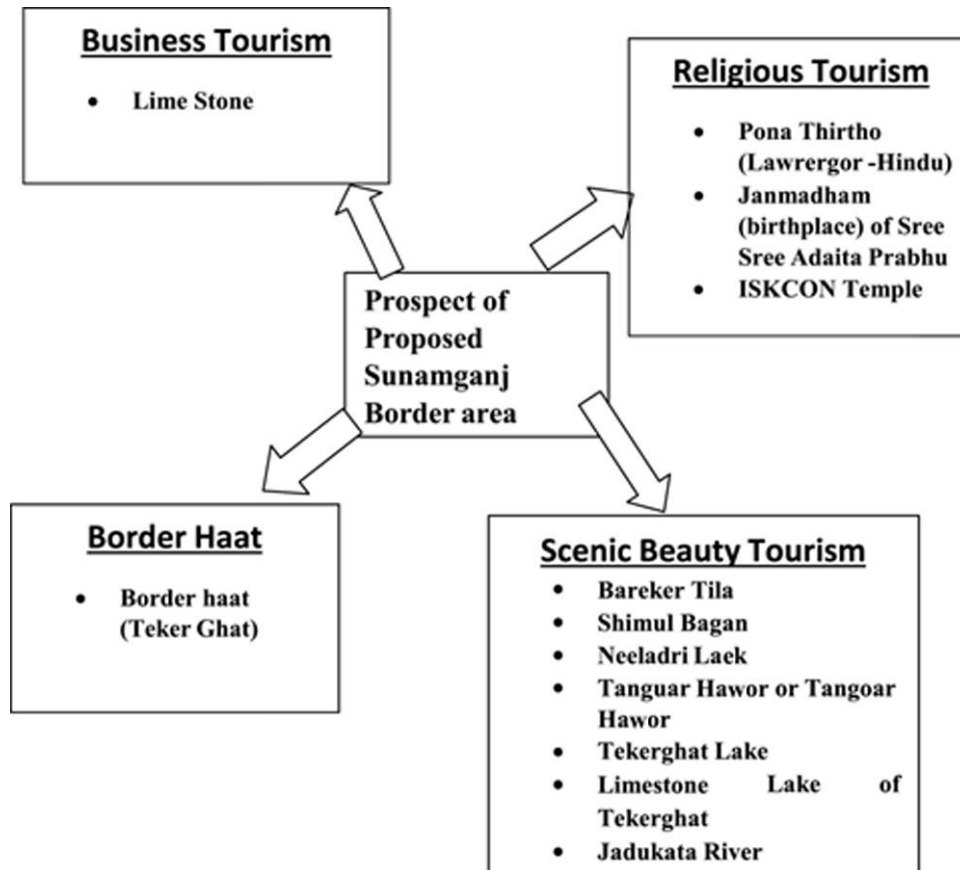


Figure 3: Proposed Perspective Plan for Tourism in Sunamganj Border Area; Source: (Author)

Sunamganj's mountainous border districts offer a lot of tourism potential. Several old temples, monasteries, forts, traditions and rituals, food, attire, and other features are noteworthy for promotion. Tekerghat Limestone Lake lies near the Tanguar Hawor, which is close to the Indian border. Once upon a time, there was a limestone quarry, but it is no longer operational. The Tekerghat Limestone Lake is located approximately 18 kilometers north of Tahirpur. In addition to this natural feature, Sunamganj has three other natural attractions. Tekerghat Lake's water is crystal clear. Quarrying the limestone resulted in the formation of this lake. On the other side of the border, in India, there is a comparable Lake. Indians typically take their baths on that side. The hill on that side features enormous limestone rocks, but they all belong to India. In Bangladesh, there are a few little Tilas that are possibly 20 feet tall. The beauty of local and exotic stones is eroding due to the unplanned lifting of stone today. Even then, the beauty of it is not low in emotions. Many tourists visit Takerghat, but do not go there due to lack of knowledge. There is Hindu Myth that

the Jadukata river which was created by Sree Sree Adaita Prabhu summoning all the holy waters. Sree Sree Adaita Prabhu Bari- A temple that stands on the bank of Jadukata river. From the foregoing it is evident that, the border district of Sunamganj have immense potential for tourism attraction.

3.2 Evaluation of Different Quality Aspects of Cross Border Tourism in Sunamganj Area

Table-1: Cross Border Tourism in the Destination

Tourism Factors	Mean	1	2	3	4	5	Total (%)
Cross-border tourism will positively impact on Growth or development.	04.74	00	00	01.2	034.9	063.9	100.0
Effective tourism Strategy is vital for developing cross-border tourism.	02.88	5.6	024.1	041.7	025.5	03.10	100.0
Participation of border area people in decision making on tourism should be encouraged.	04.21	00	01.2	07.0	063.3	028.5	100.0
Local residents attitude should be supportive for developing cross border tourism activities.	3.85	00	13.3	016.4	044.4	025.9	100.0

According to the above Table-1, the first factor tourism's impact on growth/development ranks top with a mean of 4.74, with 63.9 percent expressing a highly favorable impact. Tourism strategy factors had the lowest mean of 2.88, indicating a lack of awareness of important information.

The survey revealed that the tourism industry has been recognized as a tool of promoting border regions in the field of research. Respondents have a high level of understanding of the growth/development role of tourism in border regions. In both countries, the greatest rating was given to destination appeal, while the lowest was given to destination organization. In other words, there is no disagreement about the appeal of the destination. The sphere of destination organization, which includes destination growth/development initiatives and destination management, is more challenging.

4. Methodology

This study follows quantitative research approach. To achieve the research objectives, data was gathered from a variety of magazines, journals, newspapers, published and unpublished articles, reports, and various websites on the internet. In

addition, the authors visited several border tourist attractions in Sunamganj and assessed the border tourism potential. To evaluate potential about tourism in border destination in Sunamganj, a systematic questionnaire was developed. There were 17 questions in the questionnaire. The study's questionnaire was divided into three parts; the first part of the questionnaire consists of four questions on socio-demographic profile of the respondents, the second part of the questionnaire consists nine questions connected to the reasons for traveling to the cross-border area, and the third part of the questionnaire includes questions about quality aspects of cross border tourism in Sunamganj. The majority of the questions were on the 5-point Likert scale type. Data was collected using a self-administered questionnaire. Bangladesh and India had 150 and 60 respondents respectively, in the targeted samples. We received 133 correctly completed questionnaires from Bangladesh and 42 from India, with response rates of 88.67% and 70%, respectively. In this study, SPSS 25.0 was used to analyze the data and various statistical tools like; frequency analysis, percentage used to analyze the data.

5. Data Analysis

Table 2 shows that most of the respondents are male which is 71.5 percent and 28.5 percent of the respondents are female. 28.57 percent of respondents belong to the 41 to 50 age group, after that, 24 percent of respondents are above 50. Most of the respondents are highly educated as 58.28 percent have completed their graduation. In terms of income, 45.71 percent respondents earned almost 31000 to 40000 taka monthly.

Table 2: Socio Demographic Profile of the Respondents

	Frequency	Percentage
Gender		
Female	50	28.50
Male	125	71.50
Total	175	100.00
Age		
less than 20	5	2.85
20-30	42	24.00
31-40	36	20.57
41-50	50	28.57
Above 50	42	24.00
Total	175	100.00

Educational status		
Primary	11	6.29
High School	30	17.14
Higher secondary	32	18.28
Graduation	102	58.28
Total	175	100.00
What is your monthly income (BDT)?		
Below 10,000	8	4.57
10,001-20,000	26	14.85
20,001-30,000	30	17.14
30,001-40,000	80	45.71
Above 40,000	31	17.71
Total	175	100

Table 3 shows the respondents perception about the reasons for travelling cross border area. In this study, respondents shows that they travel border area for cheaper price of goods and services which gets highest mean score (4.34). In terms of safety and security in border area gets the lowest score (2.21).

Table 3: Respondents assessment of the reasons for visiting Cross-border area

No.	Statement	Mean	Standard Deviation
1	I travel in border area because of cheaper price of goods and services	4.34	1.09
2	It is a better place for rest and relax	2.30	1.14
3	To explore new culture and heritage sites	4.22	.980
4	Border area is safe for travel as there are adequate safety and security systems	2.21	1.01
5	To visit friends and relatives	4.57	1.23
6	To get away to reduce stress and pressure	3.89	.85
7	To attend sports events	4.01	1.45
8	To attend indigenous festivals and fairs	4.67	1.76
9	To attend the religious festival in border area	3.4	1.11

6. Findings

The result of the study shows that; Tourism is a major industry and a driving factor for area development. In this way, it can simulate a new spatial arrangement of border regions such as Bangladesh's Sunamganj border area. Furthermore, it reveals that, Cross-Border Tourism is flourished by creating job opportunities for the local

people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationship. Thus, Cross-Border Tourism as a part of Cross-Border Trade help develop better Border Management between Bangladesh and India.

7. Discussions of the Findings

7.1 The border between Bangladesh and India

The very geostrategic location offers Bangladesh to become a communication hub between South and Southeast Asia on communication, economic, cultural, and political issues with her bordering countries which make her borders important to neighbours. The Bangladesh-India border is the world's third-largest. Bangladesh and India share a large land border of 4096 kilometers, where in India mostly surrounds. The interdependence of border area people, who have large amounts of exchanges of goods and services, and life as a whole in the context of socio-economy and socio-culture, including Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) and so on, demonstrates the interdependency of border area people. As a result, cross-border trade occurs in those areas in a variety of forms, including formal, informal, and quasi-formal border trade. In the Bangladesh-India border region context, cross-border tourism can play an important role as a part of trade in services.

The Indo-Bangladesh border is densely populated, particularly in Bangladesh's southwest and north western regions. Furthermore, the border is extremely circuitous and does not follow any natural barriers, meandering through villages, rivers, and agricultural lands. All of these adds up to a border that is extremely porous. Bilateral trade between Bangladesh and India has an impact on the economies that thrive around the border. The impact of this trade on both countries' local economies has its own set of benefits and drawbacks. The economic status of the local inhabitants in the border area has improved as a result of the favorable business climate. Poor transportation and B2B connectivity are a major stumbling block to both countries' trade competitiveness and growth. Another flaw in bilateral trade is the absence of diversification in their respective trade baskets. Bangladesh's exports to India are dominated by labor-intensive manufacturing, whereas primary commodities dominate its purchases from India.

Bangladesh and India engage in three categories of bilateral border trade. Border trade can be classified as formal, informal, or quasi-formal. For example, cross-border 'informal trade' in agricultural items, primarily between India and Bangladesh, is dominated by cattle traffic. 'Formal border trade' includes coal, stone etc imports from India. Improving trade with Bangladesh will alleviate many of India's concerns about economic segregation of its north-eastern regions and provide new market

opportunities for small-scale traders from the country's backward hinterlands. With expanded trade opportunities with India, Bangladesh will have access to new areas of cooperation, investment, and development opportunities. It is worth noting that, a variety of non-tariff barriers have made this trade prohibitively expensive, making many high-potential commodities unfeasible.

7.2 Potential Trade in Services

A wide range of trade in services, including education and vocational training, tourism, and health care, should be traded between the two nations. Bangladesh could propose transferring technology, particularly in electricity and infrastructure, transportation, information and communications technology (ICT), health care and pharmaceuticals (HCP). India and Bangladesh can potentially trade in tourism as a potential service activity. This industry boosts the country's GDP and opens doors for other businesses, such as transportation, restaurants, hotels of various kinds, tour guides, and financial institutions. The number of Indian tourists visiting Bangladesh has remained stagnant despite the fact that this industry offers so much potential for improving India-Bangladesh ties. Many factors might account for this, including the low per-capita income of border residents, infrastructure problems, security concerns, and more. However, it's important noting that both nations have finally realized that they must work together to bridge the gap between them.

7.3 Scope for Greater Border Tourism in Bangladesh-India Land Border

In Bangladesh, there is a lot of room for border tourism. The natural and artificial tourism potentials of Bangladesh's and India's border territories are abundant. Tourists should take advantage of various pristine mountain peaks and monuments, rivers, rich local cultures, religious sites, and other unspoilt tourism features. According to this study, tourism and hospitality in Bangladesh border areas can provide benefits that stimulate border growth. Tourism creates jobs, boosts the local economy, helps to raise the local population's standard of living, and improves investment prospects in new businesses; to name a few benefits. Tourism supports cultural exchanges by enhancing cultural heritage, promoting natural parks, increasing leisure options, expanding recreational facilities, and facilitating cultural exchanges between visitors and hosts. With the foregoing in mind, this study will focus on the possibilities for cross-border tourism between Bangladesh and India. Bangladesh and India's border destinations have a lot of tourism potential since they have a lot of historical monuments, religious structures, mountain peaks, scenic beauty, wildlife, and local cultures. As a result, there is a critical need to encourage tourism education among locals as well as the development of rudimentary tourism infrastructure in the various Bangladesh-India border regions.

7.4 Cooperation in Cross-Border Tourism in Bangladesh-India Border Context

Cross-border tourism in the Bangladesh-India border regions is reliant on the two nations' collaboration and engagement. Tourism benefits these areas by improving the regional economy and creating jobs. The rise of the tourism industry has contributed to develop socio-economic growth in border area. As a result, cross-border tourist collaboration plays a significant role in social and regional development. In the context of Bangladesh-India cross-border tourism, it may be contributing to:

7.4.1 Regional economic development along the Bangladesh-India border. In the Bangladesh-India border areas, tourism is a relatively new business sector. Its deployment contributes to the regional economy's diversification and provides an opportunity to earn more revenue and new economic activities.

7.4.2 Regional labour market development in Bangladesh-India border regions. Tourism is a labor-intensive industry that impacts employment levels by producing new jobs and providing alternative work opportunities. Simultaneously, it promotes the development of new professional abilities and knowledge transfer.

7.4.3 Infrastructure and facilities related to border tourism in the Bangladesh-India border regions are being modernized. The tourism industry requires the availability of appropriate infrastructure and related services, such as road networks, airports, rail tracks, telecommunications, tourist information centers, hotels, and recreational and entertainment facilities. Intuitively, efficient services (public transportation, healthcare etc) and markets and shops are essential.

7.4.4 Attracting investors and distributing business throughout the Bangladesh-India border region. The socio-economic expansion that results from tourism dynamics is a significant instrument for influencing and establishing a higher standard.

7.5 Challenges of Cross-Border Tourism in Bangladesh-India Border Context

Along with the advantages and positive consequences of cross border tourism in Sunamgonj border area under the overall context of Bangladesh-India border regions, there are several challenges related to cross border tourism which are as following:

7.5.1 There is a scarcity of high-quality research on the tourism sector and analyses of the region's strengths and weaknesses. It is hard to identify common objectives and develop guidelines for forming/creating a innovative differentiated tourism product and making efficient use of tourism infrastructure and services without such in-depth research.

7.5.2 On both sides of the Bangladesh-India border, potential tensions between tourism and other sectors of growth, particularly in the event of mass tourist. This is due to a tendency to place too much emphasis on tourism, resulting in dependency and imbalance in regional economic infrastructure, as well as inconsistencies connected to severe environmental impacts and erosion, and also lack of incorporation of local culture and way of life.

7.5.3 Lack of cross-border network-linkages between public institutions, tourist support agencies, and other organizations (including commercial legal entities) to support joint efforts to manage benefits and invest in new tourism products and markets.

7.5.4 Access to the Bangladesh-India border areas is hampered by deficiencies in transportation and economic infrastructure, both of which are necessary for tourism growth.

7.5.5 Lack of skilled manpower in this sector. It is required to provide high standard of tourism services in the Bangladesh-India cross-border region.

7.5.6 Appropriate target market segment selection and delivery of a comprehensive range of high-quality tourism services in the Bangladesh-India cross-border region.

8. Recommendations

A few ideas for harnessing the untapped tourist potential in Sunamgonj border area under the overall context of Bangladesh-India border region are given in the following paragraphs:

Border tourist sites must be equipped with the necessary infrastructure to facilitate the development of tourism-related services such as transportation and telecommunications. However, border destinations should be promoted through the internet, newspapers, magazines, journals, television programs, and other media. In order for the locals to reap the advantages of tourism and contribute to the growth of tourism, the host community must participate in tourism awareness programs at the appropriate time. There should be a variety of tourism-related festivities in border regions in an effort to enhance visitor flow. At the same time, in order to ensure the safety and security of the anticipated visitors, the government should take immediate action. Traditional border roads/railways between India and Bangladesh may be reopened to facilitate cross-border tourism.

In addition to promoting the border as a tourist destination, travel agencies should also include these border tourist sites in their packages. In the border areas, there are many heritage structures in a state of disrepair and need to be preserved.

Museum should be built in the border areas to preserve and highlight the area's distinctive heritage. In order to attract tourists from across the border, effective road connection is essential. A major problem in border destinations is a lack of adequate lodging which need to be addressed. In order to enable travelers to experience and enjoy a different kind of natural beauty, authority concerned should arrange and organize places having natural beauty with flora and fauna. More extensive scholarly engagement in this sector could help peripheral border regions to achieve favorable economic and social growth.

9. Implication

Cross-border tourism is a new concept for Bangladesh's tourism industry. This study was conducted on the Bangladesh-India border area which is located in Sunamganj. However, this study will significantly contribute to the future research of cross-border studies. Thus, this study is the qualitative pilot study regarding this topic. On the other hand, this study will guide the policymakers to develop tourism facilities in the cross-border area. Appropriate policy needs to be developed to address the current issues identified in this study like; developing tourist facilities in border areas, improving safety and security as peats, developing tourism manpower, and creating network with neighboring countries.

10. Conclusion

Tourism is predicted to become a major industry and a driving factor for regional development in Asia. In this way, it can simulate a new spatial arrangement of border regions such as Bangladesh's Sunamganj border area. The development of such cross-border tourism is a sign of the international integration process. Furthermore, cross-border tourism and hospitality education among local people and infrastructure development are critical to achieving Bangladesh's tourism development goals which needs to be fostered. There is also great potential for the development of tourist circuits. Aside from the above-mentioned tourism potentials, the cultures of the border areas of Bangladesh are also quite appealing and unique. Endowed with bountiful variety of tourist attractions, Bangladesh-India border destinations offer vast potential for growth in tourism sector especially with spectacular sights that provide visual delight. The result of the study state that, Cross-Border Tourism is flourished by creating job opportunities for the local people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationship. Thus, Cross-Border Tourism as a part of Cross-Border Trade can help develop better Border Management between Bangladesh and India.

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THE ROLE OF GREEN MARKETING FOR GREEN BRAND RELATIONSHIPS: A CONCEPTUAL UNDERSTANDING

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Abstract

The goal of the study is to focus on conceptual understanding of Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional Value, and Green Brand Relationships in banks, MFIs, Insurance, & others. The numbers of past research on Green Brand Relationships in different sectors in the worldwide side by side in Bangladesh framework directed on issues (like Brand Knowledge, Brand Attitudes, Brand Equity, Brand Trust, Brand Image, Brand Preferences, etc.) but the aspects of the role of green marketing for Green Brand Relationships was overlooked. The hypothesized theoretical framework which is developed based on the existing literature has examined the role of Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional Value on Green Brand Relationships. This study thus extends existing knowledge by highlighting the mediating role played by green brand bonding and moderating role played by emotional values in determining green brand relationships. In addition, Emotional value also has a significant moderating role in shaping the Green Brand Relationships. The potential outcome of this study mostly will encourage the marketing practitioners, bankers, government, researchers, MFIs, and Insurance firms in developing more environmentally conscious or eco-friendly marketing policies and stimulate them to incorporate in social, economic, and environmental issues.

Keywords: Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional value, Green Brand Relationships (GBR), and Banks.

1. Introduction

Green Brand Relationships is related with the green product needs satisfaction of environmental desire, environmental performance, sustainable expectations, brand trust, credibility, generosity, and examine the interconnections of customers' loyalty to buying green products. (Chen, 2013; Martínez, 2015). Greenmarkets achieve a sharp worth in business revenues through effective environmental sustainability promotions and consumption of green brands (Lin et al., 2017; Papista & Dimitriadis, 2019). The more consumers are aware of the environment, the more preference to buy environmentally promising products (Barbarossa & de Pelsmacker, 2016). In comparison to non-green products/brands, the consumer's positive impression and association with a green brand are the most crucial predictor of purchasing green items (Schiffman et al., 2014). Consumer willingness drive to purchase green

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products based on experience, awareness, and positioning about the green brand (Wang et al., 2014). Appropriate positioning and strategic advertisement about green brands traits in order to entice added green consumers (Huang et al., 2014). Green Market of Natural Cosmetics will be valued at over \$54 billion by 2027 (Statista, 2022). Literature on green marketing identifies the significance of green brand benefits in the discipline of self-awareness aids on consumer mindset and buying intents (Hartmann et al., 2012). Consumers' lives are influenced by the brands of values they search, the image they develop, the sentiments they realize and dispense with the properties which are kept in the mind (Janiszewski et al., 2017). In a service context, relational benefits are those added values attached within service offerings that provide more performance than the core service offerings (Gwinner et al., 1998). Consumers' values have a favorable effect on relationship excellence and loyalty to the green brand (Papista et al., 2018). Green brand offers a specific value confined of environment ethical, philanthropic and expected level performance which reinforce consumers towards green brand (Ahmed et al., 2015). The relational benefits approach suggests that the service receiver and provider should be benefited from the relationships (Hennig-Thurau et al., 2002). In competitive market green branding divert customers' attention from non-green to green (Kang et al., 2012). Brand relationships are one of the active marketing components of securing and understanding the customer's (needs, wants, & demands) values and responding accordingly (Avery et al., 2014).

As a result, several sectors are appreciating the ecological, economical, and ethical benefits of integrating green strategies into business processes. (Deveau, 2009; Choi et al., 2008). In existing literature shows that industries concern for green marketing and green brand relationships are hotel and tourism, lodging services, cosmetics, organic vegetables and rice, home appliances, vehicle equipment manufacturers etc. (Bashir et al., 2020; Mishra, 2019; Hasim Zameer, 2019; Zvezdana, 2018; DP Alamsyah, 2018; Chen, 2018; Martinez, 2017). The literature shows that few services sectors are slowly going to the concept of green marketing and ensuing this concept in service sectors may build a long-term green brand relationship. Thus, emergency of adopting in the competitive business environment, the banking segment should take part in the ecological development process for sustainability. Green banks are just getting started in Bangladesh particularly in the green marketing context. However, since they have begun to implement green initiatives, Bangladeshi banks are still missing out on a number of opportunities to green their operations, particularly in terms of developing and maintaining a green brand and relationships respectively (Habib et al., 2014). Because relationships quality direct towards stronger buying/consumption behavior (De Cannière, De Pelsmacker & Geuens, 2010), where green behavioral intent is the implicit result of a healthy brand relationship with consumers which can lead to greater loyalty to green brands (Wieseke et al., 2012).

Preceding literature suggests that firms' marketing departments develop a proactive eco-orientation approach for ecological values, commitment, esteem, and environmental stewardship. Important inference for the practitioner's investment in environment-favor technology lessens the costs of buying hazardous materials and no customer complaints might improve overall economic performance in the form of market position, sales volume, and profit rate (Lin et al., 2013). Henceforward, the intent of this research is to demonstrate the mediating role of emotional value among Green Marketing Functions, Green Brand Management, Green Brand Bonding, and Green Brand Relationships.

Thus, the principal plan of this investigation would be to review the writing of Green Marketing Functions, Green Brand Management, Green Brand Bonding, and Green Brand Relationships to build up a theoretical structure. This investigation is likewise led with the end goal of recognizable proof of examination gap with regards to Banking area so the executives can improve Green Brand Relationships through fulfilling Green Marketing Functions, Green Brand Management, Green Brand Bonding and Emotional Value (Becerra & Badrinarayanan, 2013; Kang et al., 2012; Liang et al., 2008).

2. Literature Review

2.1.0 Green Brand Relationships

The Consumer Brand Relationships (CBR) concept is highly prioritized by marketers in all types of sectors and markets worldwide (Keller, 2014). Now a day's due to the diffusion of green products the attention of academicians and corporate professionals swing their attention from the initial buying to long-term & repeat consumptions (i.e. formulation of healthy & justifiable relationships between the consumer and the green band), This orientation transit relationship development from green product development to the green brand which specifies attributes and benefits attached with the product's minimized environmental negative effect and formulate strong brand equity and competitive advantage over its rivals (Hartmann et al., 2005; Lin et al., 2017). Green brand product qualities are consisting of ecological, i.e., biodegradable, recyclable, low pollution, etc. (Chen et al., 2015).

Green Brand creates value with offerings environmental favored product design, performance, and decent in nature which encompasses positive buying attitudes to the brand (Ahmad et al., 2015). Green branding strategy may differentiate and gain competitive advantages over rivals (Liu et al., 2020). Periodically researchers have identified different attributes and benefits that positively enhance consumer-brand relationships (Orth et al., 2004). Relationships have a justification that is administered by various sentiments like promises, desires, and familiarity with others (Sternberg, 1986; Alvarez & Fournier, 2016). Affectionate attitudes towards brands

activate relationships. (Wallace et al., 2014). Emotion, symbolic aspects of a brand create identity and belief which create a pool of relationships to the brand (Fetscherin et al., 2015; Sketh, 2017). Nevertheless, Durable confident brand relationships may create customer representatives who convey the positive Word of Mouth (WoM) and create new customers (Wallace et al., 2014) to numerous spectators through different message conveying tools (Karjaluoto et al., 2016), Create flavorist in social groups such as in a household (Iyer et al., 2016) and the readiness to form particular brand society (Wallace et al., 2014). All these boost up the brand performance and will minimize the excuse of the brand (Henger et al., 2017). Brand's better economic performance is the pinpoint for the managers concerned in evolving and keeping encouraging strategies for maintaining brand relationships (Dessart et al., 2015). A brand that is consistent with consumer belief, self-image, keen and clear psychological map may build a durable and solid relationship between consumer and brand (Kaufmann et al., 2016).

2.1.1 Green Marketing Functions

Green marketing consists of all doings formulated and offered any exchanges planned to fulfill customers' needs and wants, in such manner, the pleasure of those desires and wishes happens with a minimum harmful effect on nature (Polonsky and Ottman, 1998). Multiple creativities are required to fulfill these human needs and wants in an environmental familiar means includes product modification, sustainable packaging and advertising, among others. It has become progressively necessitates to introduce environmental marketing efforts at each level of the firm. Green Marketing means, Products and Services are developed and promoted in a manner that satisfy customers' needs who favors products of high quality, performance and available at reasonable price in addition do not have any harmful influence on the environment (Mishra & Sharma, 2014). Green marketing has emerged as a major area of concern for both businesses and society as a whole in recent years. This is quite similar to the original marketing; the only exception is that it incorporates market strategies such as the creation, differentiation, pricing, and promotion of environmentally friendly goods or services that suit consumers' environmental needs (Ansar, 2013). Green marketing encompasses a wide range of acts that include modifications to the manufacturing process as well as variations to product lines, advancements in packaging, and the transformation of advertising (Arseculeratne & Yazdanifard, 2014). Pride and Ferrel (1993) described the activities of a business to create, advertise, price, and distribute eco-friendly products. Kotlar & Zaltman (1971) classify that green marketing as a form of social marketing. Green marketing success requires that the firm must follow four "S" standards (Peattie, 1995). Four "S" refers – Satisfaction, Safety, Social acceptability, and Sustainability. At the operational

level of marketing management, the green marketing strategy involves the combining or mixing of marketing activities such as green product design policies; green distribution policies; green product costs; and green advertisements, support, and promotional methods (Camino, 2007). Mixed green marketing consists of broad range of functions like, modifications to the product, production process, packaging and advertising (Esmailpour & Imamgholi, 2014). Marketing mix elements are the pillar of all marketing functions of a company (Rex & Baumann, 2007).

2.1.2 Green Products

A product is called green when its social and environmental impact during production, usage, and discarding has been minimized in comparison with other competing products (Dangelico et al., 2010). Green products are known as environmentally responsive products (Tan et al., 2016). Green products are associated with a course of action considered during the manufacturing process to protect the environment by using less material, energy, and producing fewer pollutants (Dangelico & Pujari, 2010; Leonidou et al., 2013). Furthermore, a green product needs less power and capital, which results in producing additional by-products and reduced pollution throughout the product's lifespan (Song-Turner, 2014). The green products typically have the potential to be repaired, replaced, recycled, reused, and/or reconstructed (D'souza et al., 2006).

2.1.3 Green Price

Green pricing is a term used to denote the economic and environmental costs of a company's production and marketing (Leonidou et al., 2013). Green price has been defined as the regulatory price for green products in a way that balances the consumer's sensitiveness to cost and tendency to pay extra for products that are aligned with the environment (Laroche et al., 2001). Green products must secure the environment by ensuring a balance between the price paid by the consumer and the satisfaction with the product even at a higher cost (Grove et al., 1996). Green prices can also produce a reasonable profit for companies while simultaneously providing a high level of value for customers. A price strategy is also employed for product packaging in order to acquire a competitive pricing advantage (Song-Turner, 2010). Green production has more expenses than conventional production, resulting in higher green pricing. Customers have to pay a premium for green products in comparison to traditional products. Customers who respect environment-friendly products agree to pay a premium for them (Trujillo et al., 2014). Product lifecycle costs from the research and development to disposal should be strategic for a sustainable pricing perspective (Katsikeas et al., 2013).

2.1.4 Green Place

Green place refers to a management approach that focuses on supplying environment-friendly products from producers to customers (Davari & Strutton, 2014). In reducing the environmental influence of the supply chain, green places or green distribution finds the most eco-friendly locations for distribution facilities, and final retail outlets (Trujillo et al., 2014). It is critical for the company to make decisions on how and where the green product should be distributed and become available (Davari & Strutton, 2014). The green distribution must be accompanied by reduced pollution and resource consumption when delivering these products to the market (Eneizan et al., 2016) green place states that green supply to choose of channels that produce less environmental contamination. Then, partnering with channel members is valuable for developing the process for product recycling and removal and also, to make an arrangement for the consumer with the assistance to recurrence biodegradable supplies (Eneizan et al., 2016).

2.1.5 Green Promotion

Green promotion is a significant component of the green marketing mix (Davari & Strutton, 2014). Green promotion is a type of communication that aims to convey to stakeholders about the company's strong efforts, dedication, and accomplishments in the area of environmental preservation (Dahlstrom, 2011). It's a marketing strategy that emphasizes the environmental aspects of a company's operations and processes in order to raise awareness of the company's environmental initiatives and the demands of environmentally conscious customers (Wong et al., 2014). Consumers can be influenced by advertisements and advertising messages that represent a company's environmental commitment or protection (Camino, 2007). Advertisers should communicate the appropriate message to the consumer about the functional benefits of the green product (Chockalingam et al., 2016). Face-to-face communication and social media promotion are more effective for developing brand trust than a paid advertisement (Isreal et al., 2016).

2.1.6 Green People

Good Business Journey Report (2018) sated green people teaches and inspires its workforces, consumers, and dealers on the importance of environment friendly manufacturing and consumption practices. The notion of "green people" comprises cultivating a green attitude and putting it into practice in daily activities (Millar et al., 2012). Human Resources working in the organization have to commit for implementation process of green activities (Malhotra et al., 2012). Employees must be well trained and educate about green marketing according to customers' needs and environmental concerns (Eneizan & Wahab, 2016).

2.1.7 Green Process

Green processes entail eco-labeling supplies and eco-certifying warehouses using ISO 14000 procedures that adhere to eco-labeling principles in raw materials, manufacturing, logistics, transport, warehouses, stores, and offices (Yeo et al., 2010). Transformation and confirmation of the green policy in the service delivery process (Eneizan et al., 2016).

2.1.8 Green Physical evidence

Skeptical and environmental concern consumers want physical evidence in goods and services. Green marketers need to confirm this issue through Eco-brand and differentiate green services from non-green services (Warrink, 2018).

2.2.1 Green Brand Management

According to the American Marketing Association (2012), "Brand management is the process of focusing on planning, coordinating, and regulating a brand through target-oriented marketing functions." In 2001, Hislop describe branding as "the process of creating a relationship or a connection between a company's product and emotional perception of the customer for the purpose of generating segregation among competition and building loyalty among customers." Brand management associates' consumers with different premium offers and empowers the company to charge more from loyal customers. Green brands are able to meet the needs of consumers in a way that increases their own satisfaction (Barbarossa & Deplelsmaeker, 2016). The consequences of the activities build strong brand bonding and relationships with the targeted customers.

2.2.2 Green Brand Knowledge

Consumers having knowledge about green products are willing to buy the product in the future (Smith & Paladino, 2010). The positive attitude of consumers towards a particular brand depends on the way the marketers deliver environmental information to the consumers (Chang et al., 2015). Firms should provide trustworthy green information for educating consumers that will improve consumers' green environmental knowledge and purchase the brand (Ganapathy et.al., 2014). More environmentally knowledgeable consumers are more concerned about global protection and purchase green brands (Suki, 2016). Green customers group formation is enhanced by speeding up the green products traits, advertising, and advanced marketing efforts (Huang et al., 2014). The uniqueness of promises and attributes of green products develop green brand knowledge (Suki, 2016).

2.2.3 Green Brand Attitudes

Green brand attitude can be separated into two classes: one that emphasizes functional features and another that emphasizes emotional advantages (Hartmann & Ibanez, 2006). Green brand should meet customer's expectations according to the valuable qualities the brand is positioning in the market and to the customers (Wang, 2016). Affective, Behavioral, and Cognitive components are largely associated with developing attitudes towards a particular object/ green brand (Breckler et al., 2006). An Eco attitude originates from an individual self-concept, environmental focus, and consciousness of the natural environment (Axelrod et al., 1993). Also, Brand attitudes of individual consumers instinctive sentimental feedback towards an item, which is one's personal sensation for the whole brand (Abimbola et al., 2012).

2.2.4 Green Brand Preference

Environmentally concerned consumers prefer to buy environmental products (Barbarossa & de pelsmacker, 2016). Green customers group formation is enhanced by speeding up the green products traits, advertising, and advanced marketing efforts (Huang, Yang & Wang, 2014). Social acceptance pressure increases the preference of purchasing a brand (Braun et al., 2016).

2.2.5 Green Brand Image

Dichter (1985) recommended that brand image denotes that through observation and consumption a consumer builds the full set of concepts about products or services. According to Bullmore (1984), brand image pertains to a consumer's psychological picture of the product and encompasses beliefs, insights, state of mind, and attitude. Brand image is the consumers association of brand recognition, belongingness, and trial (Shabbir et al., 2017). A brand image is a type of consumer's intangible and tangible perceptions or linkages to a brand that is generated by the cognition, affection, and evaluative processes of consumers (Nyadzayo et al., 2016). Brand competitiveness is enhanced by a strong brand image (Severi & Ling, 2013). Consumers' favorability and knowledge represent their overall notion about a particular brand and Brand Image is one of the significant factors of buying decision (Budiman, 2016). Chang and Fong (2010) suggest that the most important drivers of green brand image are green product quality, green corporate image, green customer satisfaction, and green customer loyalty.

2.2.6 Green Brand Trust

Trust step-up the customer loyalty (Papista et al, 2018). Brand loyalty is the outcome of brand trust (Alhaddad, 2015). Trust is the significant ingredient of brand-consumer relationships (Chen, 2010; Lien et al., 2015) described that trust

characterizes the grade of composure that alternative party would perform as likely. Trust is an actual way to diminish insecurity or mitigate the foundations of hesitation (Pavlou et al., 2007). Consumer trust is a significant element for long-term attachment of customer behavior (Lee et al., 2011). Consumer purchase intention is depending on consumer trust and ability of buying (Heijden et al., 2003). In green marketing, a high level of trust will lead to a rise in brand equity (Akturan, 2018).

2.2.7 Green Brand Loyalty

Brand loyalty is the level of a consumer's devotion to a particular brand. This is an important outcome variable (He et al., 2012; de Villiers, 2015). Loyalty has been studied as both attitudinal and behavioral loyalty by looking at how often people buy goods and services (Kressmann et al., 2006; Romaniuk & Nenycz-Thiel, 2013). A brand loyal customer goes through a series of steps cognitive, affective, conative and conclusive with behavioral pattern (Oliver, 2016). Customer loyalty is directly related and depended on the trust a customer has towards the company or product (Martínez, 2015). Green Brand Loyalty depends on the promotional strength of environmental attitude and sustainable promises made towards a brand (Chen, 2013). Green Brand stimulus consists of green trust, green satisfaction and self-brand association (Lin et al., 2017). Brand loyalty is followed by satisfaction (Menidjel et al., 2017). Brand loyalty favors commitment to repurchase (Rahi et al., 2017). Satisfied consumer's recall brands (Chen, 2010). Satisfied consumers repeat green product purchase those who have environmental consciousness (Suki, 2016). Satisfaction is a psychological map consumer experience with particular products or services (Giebelhausen et al., 2016). Brand Confirms a social bond among the family, community and cultural groups (Veloustsou & Guzman, 2017). Symbolic benefits of brand have an influence on emotional consumer relationships (Butt et al., 2017).

2.2.8 Green Brand Equity

The set of possessions, obligations, names, symbols, and signs which improve worth or withdraw merit from a product or service is called brand equity (Aaker, 2005). In 2010, Chen in his writing first introduced the concept of green brand equity. The driving force of green brand equity is green brand image, green satisfaction, and green trust (Chen, 2010). Green Brand equity is ecological in nature so that customers always keep in mind the green value and the brand (Papista & Krystallis, 2013). Brand equity is the composition of consumers' attitudes to the brand, perceived superiority positions, brand personality, brand image, and brand awareness (Buil et al., 2013). In addition brand image, perceived quality, brand awareness, and brand loyalty are the determinants of consumer-based brand equity (Girard et al., 2017). Brand equity is the unique brand association the consumer has about a particular product or service and Currently Brand equity dimension is one of

the significant indicators of marketing performance (Veloutsou et al., 2017). Green brand equity dimensions are Green Brand Image, Green Brand Satisfaction, Green Brand Trust, Green Brand Loyalty, Reference Group & Green Advertisement (Khandelwal et al., 2019).

2.3 Emotional Value

Emotional value is the affection that arises in consumer psychology from the particular products or service usefulness (Sheth et al., 1991). An influence of benefits in the consumer mind originates from a good or service (Sweeney et al., 2001). Positive, Negative, and Mixed perceptions of purchase decisions arise among consumers for distinctive personal value experiences (MacKay, 1999). When Brand Building strategy reaches consumers expected performance might create emotions like appreciation, pleasure, delights, melancholy, glory, motivation, dependability, honor, and affection can outcomes. On the other hand, if the strategy implications failed; an impression in the consumer's mind such as dread, worry, awkwardness, guiltiness, humiliation, dislike, remorse, and anger may result (Park et al., 2018). Consumer optimistic attitude encourages pleasant and repetitive green purchase, also formulate feeling belongingness and responsiveness towards environment protection. (Lin & Huang, 2012; Rex & Baumann, 2007). Symbolic benefits of the brand have an influence on emotional consumer relationships (Butt et al., 2017). Affectionate attitudes towards brands activate relationships (Chernatony et al., 2014).

2.4 Green Brand Bonding

Bonds are the process of physical, emotional, and economic links in a relationship which is elevated by collaboration and communication and tie-up parties collectively in an interpersonal exchange (McCall et al., 1970). Prior research abstracted bonds are two types structural and social (Han, 1992). In addition, functional bonds influence the public to link up in a relational exchange (Wilson, 1995). Chiu et al., (2005) proposed three types of bonding; Economic, Social, and Organizational. Financial bonding stands for stimulating interest groups through monetary or financial incentives, structural/organizational bonding refers to the rules, standards, norms, or procedures pertinent to the structure in relational exchange formulate relationship (Chiu et al., 2005; Liang et al., 2008). Social bonding reflects belongingness shared by firms and stakeholders (Ramström, 2008; Cater et al., 2009). Buyer-seller relationships are the foundation of relationship marketing (Liang et al., 2008; Chiu et al., 2005). Relational bonding improves interpersonal interaction and coordination among exchangers (Adler & Kwon, 2002; Tsai, 2002). Green Brand confirms a social bond among the family, community, and cultural groups (Veloustsou & Guzman, 2017).

2.5 Objectives of the Study:

The objective of the study has been categorized in two ways broad objective and specific objectives as follows;

2.5.1 Broad Objective:

The conceptual understand of Green Marketing role for Green Brand Relationships in business organizations.

2.5.2 Specific Objectives:

- i. To identify the influence of green marketing functions, green brand management for green brand bonding and green brand relationships;
- ii. To determine the impact of green brand bonding towards green brand relationships;
- iii. To determine the mediating effect of green brand bonding on green brand management and green brand relationships; and
- iv. To examine the moderating consequence of emotional value on green brand bonding and green brand relationships.

2.6 Green marketing functions, green brand management, emotional value, green brand bonding, and Green Brand Relationships.

There is an interdependent relationship in-between green marketing and Brand (Keller, 1993). In a competitive market for building a strong green brand, marketers need to green all elements of the marketing mix (Kang & Hur, 2012; Polonsky, 1994). A Brand becomes green when it creates a positive concept in the consumers' minds about eco-friendly emotion, attitudes, and actions (Ng et al., 2014). Consumer attitudes shaped from the brand image possess in mind and enhance brand equity (Buil, Martínez, & de Chernatony, 2013; Yoo et al., 2000). Brand knowledge defends brand equity (Ng et al., 2014). Brand trust is the main component of brand-consumer bonding. Brand equity and brand trust step up the customer's loyalty (Papista et al., 2018). Brand loyalty is the outcome of brand trust (Alhaddad, 2015). Brand loyalty favors commitment to repurchase (Rahi et al., 2017). Brand loyalty is followed by satisfaction. (Menidjel et al., 2017). Satisfied consumers repeat green product purchases those who have environmental consciousness (Suki, 2016). Brand confirms a social bond among the family, community, and cultural groups (Veloustsou & Guzman, 2017). Emotional value has substantial effects on green consumers and the green product buying process (Lin & Huang, 2012; Gonçalves et al., 2016). From these earlier reviews, a theoretical framework has been established, and hypothesized the follows;

Hypothesis (H₁): There is a positive effect of green marketing functions on green brand management and green brand bonding.

Hypothesis (H₂): Green marketing functions have a substantial positive effect on green brand bonding.

Hypothesis (H₃): Green brand management has a positive association with green brand bonding and green brand relationships.

Hypothesis (H₄): There is a positive extensive impact of green brand bonding on green brand relationships.

Hypothesis (H₅): Green brand bonding has positively mediated green brand management and green brand relationships.

Hypothesis (H₆): Emotional value has positively moderated the relationship between green brand bonding and green brand relationships.

3. Theoretical Framework

For this investigation, a reasonable structure has been proposed as demonstrated in figure 1. The approach received is reasonable demonstrating to introduce a fresh structure that features the huge indicators of green brand bonding in the banking sector of Bangladesh. To shape this reasonable structure, a careful writing survey in, green brand management, green marketing functions, green brand bonding, emotional value, and banking area has been directed. Extraordinary accentuation has been given to examines directed with respect to the Banking sector.

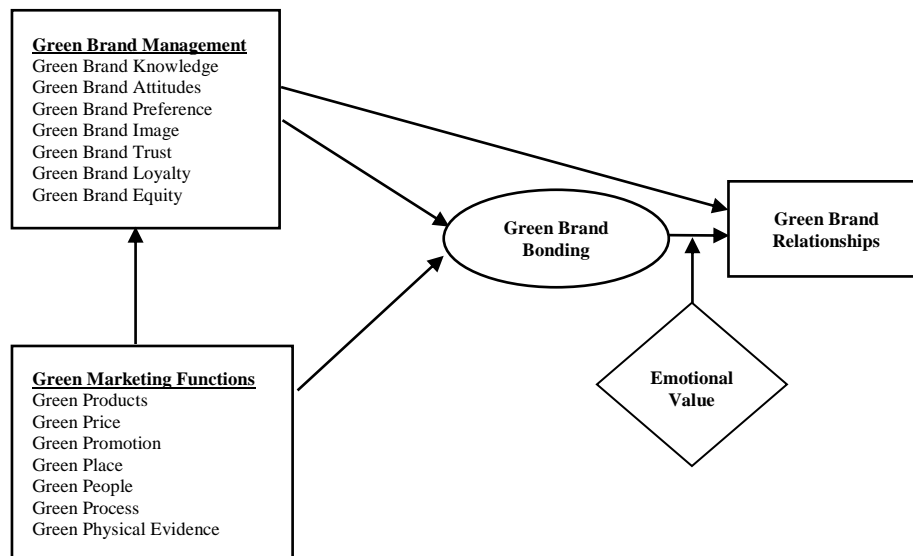


Figure-01: Hypothesized Theoretical Framework

Source: Based on Literature Review

Mediating variable postulates in what way (or mechanism by which) an assumed effect occurs (Baron et al., 1986). Also, Shadish and Sweeney (1991) defined, the mediator determines the outcome because the independent variable generates it. In

this theoretical framework, support of mediating variable can be assumed if: independent variables (Green Brand Management) are connected to the dependent variable (Green Brand Relationships); independent variables (Green Marketing Functions, Green Brand Management) are associated to the mediating variable (Green Brand Bonding) (Baron et al., 1986; Mackinnon et al., 2007), and moderating variable (Emotional value); and mediating variable (Green Brand Bonding) is linked to moderating variable (Emotional value) the dependent variable (Green Brand Relationships). The past literature indicates that Green Brand Bonding has a significant role among Green Marketing Functions, Green Brand Management, Emotional value, and Green Brand Relationships. So, considering Green Brand Bonding as mediating variable is logical to conceptualize the relationship among Green Marketing Functions, Green Brand Management, Emotional value, and Green Brand Relationships. But a thorough empirical analysis is required to generalize this perception because this relationship has not been generally shown earlier.

4. Methodology

The research has been performed on the past literature of green marketing functions, green brand management i.e. Green Brand Image and Green Brand Trust, Green Brand Knowledge, Green Brand Attitude, Green Brand Preferences, Green Brand Loyalty, Green Brand Equity was adapted from (Chen, 2010; Sukhi, 2016; Chen et al., 2015; Martínez, 2015; Kang & Hur, 2012; Ng et al., 2013; Bekk et al., 2016; Wu et al., 2015), emotional value, green brand relationship, and green brand bonding. A concept paper is a synopsis of previously published articles that integrates and offers new connections between various constructs (Gilson & Goldberg, 2015). Accordingly, this study has been concentrated to draw a relationship among, green marketing functions, green brand management, emotional value, and green brand relationships where green brand bonding plays mediating role in this relationship. Additionally, this relationship will be assessed with regards to banks, insurance & others based on seven parts of green marketing functions as the green product, green price, green place, green promotion, green people, green process, green physical evidence, likewise seven parts of green brand management incorporate green brand knowledge, green brand attitudes, green brand preference, green brand image, green brand trust, green brand loyalty, and green brand equity. At long last, a theoretical model has been proposed dependent on the current writing. Moreover, this study incorporates information about the research's future trajectory.

5. Discussion

It tends to be claimed that practices of green marketing functions, green brand management in the organizations are making green brand bonding in the consumer mind which subsequently expands green brand relationships. Past written works have

confirmed that green marketing functions, green brand management, and emotional value have a positive impact on green brand relationships and green brand bonding. Moreover, green brand bonding has a positive effect on green brand relationships. Subsequently, green brand relationships can be affirmed by the execution of green marketing functions, green brand the management which incite green brand bonding in customer mind. With regards to the Bangladeshi financial area, this relationship might be huge on the grounds that banks, MFIs, insurance & others are confronting numerous obstructions identified with green marketing functions, green brand management, emotional value, and green brand bonding. Besides, explicitly, the Bangladeshi financial area has been experiencing a helpless green brand relationship. Banking areas are confronting difficulties because of unseemly green marketing functions, green brand management, and emotional value practices. Therefore, companies, researchers, and other stakeholders will find the usefulness of this study in their daily operations with customers. Our research suggests that companies' green marketing efforts can persuade and motivate to buy green and keep engaged their customers in the long-term. Our research also, demonstrates the importance as well as the success of green marketing in the development of green brand relationships.

6. Conclusion

The idea of 'green brand bonding' is moderately new as a disaggregate approach of physical, passionate, and financial to sum up and build up the relationship among green marketing functions, green brand management, emotional value, and green brand relationships through existing written works which require a careful examination. Besides, numerous analysts asserted that satisfaction of green marketing functions, green brand management, emotional value bridge green brand relationships apart from green brand bonding autonomously impacts green brand relationships. By the by, the connections among the green marketing functions, green brand management, emotional value, green brand bonding, and green brand relationships, are not all around perceived. Green brand bonding is a significant issue to showcasing directors and specialists yet the deficiency of information in current literary works on green brand bonding drives the requirement for more exact examination. At that point, this study requests an experimental exploration with regards to the banking industry of Bangladesh that may utilize green brand bonding as a mediator to have a better understanding of these relations.

7. Suggestions for Future Research

There are some limitations to this study, which could encourage scholars to conduct additional research. Firstly, this study nature is conceptual suggested for a thorough empirical analysis is required for generalization of the concept. Secondly, this study primarily focuses on few service organizations which gives other

researchers opportunity for further research to take into consideration like green/organic goods-oriented firms for building green brand relationships. Thirdly, this research introduced green brand bonding as a mediator it is suggested for further to incorporate green brand equity as mediator of green brand relationships. To summarize, numerous elements or variables influence the development of green brand relationships, hence we advocate introducing additional variables as potential drivers of green brand relationships.

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THE DEPENDENT RELATIONSHIP ANALYSIS OF FINANCIAL OUTCOME AND THE BLENDING OF CAPITAL STRUCTURE OF LISTED CEMENT COMPANIES IN BANGLADESH

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Abstract

The optimal choice of the debt-equity mix is the burning issue in corporate finance because it affects on the firm's financial result. Therefore, this paper aims to identify the consequences of the blending of the capital structure on the financial outcome taking the consideration of five cement companies listed in Dhaka Stock Exchange (DSE) in Bangladesh. To do this both the capital structure ratios and financial performance ratios are used. The required data ranging from July, 2008 to June, 2019 are used which are retrieved from the desk of DSE. To achieve the objectives of this study correlation technique and ANOVA technique and Regression models are used. The findings of this study demonstrate that there are the mix results of an association between financial result and the capital structure. More specifically, this study evinces both positive and negative connections between capital structure and financial performance.

Keywords: Capital Structure, Financial Performance, Ratios, Correlation and ANOVA.

1. Introduction

The decision of the effect of the optimal mix of capital structure on the financial outcome is still a polemical issue in the corporate world. On one side a myriad of studies shows that firms with high leverage produce a good performance while on the other side some theorem proved that there is no effect of capital structure on the firms' performance to escalate the worth of the firm. This issue was evaluated by considering data from developed countries' companies. Therefore in this paper, this issue is examined by taking the cement companies of Bangladesh.

Capital structure denotes a composition of various long-term sources of funds including equity shares, bonds, reserves and surplus of an organization. Financial performance is an idiosyncratic measure of the extent of how well business firm can employ its belongings to engender revenues. The chronological endeavour of forming the theory of capital structure originated with the exhibition of a paper by Modigliani and Miller (MM) in 1958 to determine under what condition the configuration of capital is pertinent to the firms' financial performance. Most of the choice and selection procedures of the formation of capital structure is grounded on some factors

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like interest rate, taxes etc. (Van Horn, 1993; Titman and Wessels, 1998; Hampton, 1998). These factors directly influence the revenue generation of a firm. This issue suggested the financial researcher pay attention to know the connection between the capital structure and the firm's financial result. Brigham and Gapenski (1996) claimed that in theory, the MM model was effective, however, in the real field there exist bankruptcy costs that are related to the debt levels in a straight manner. This inference implied a straightforward linkage between capital structure and financial outcome.

Since most of the studies have been paid less attention to the Bangladeshi firms, this study is conducted by considering Bangladeshi companies. In this regard, five cement companies are selected that are listed on Dhaka Stock Exchange.

The remaining of this paper consists of objectives of this study, literature review, methodology, research hypothesis, results and discussion, and conclusion.

2. Objective of the study

The main purpose of this study is to identify and comment on the relationship between capital structure and financial effects of the five selected cement companies of Bangladesh. To do this two specific objectives are set: to test the association between the measures of the capital structure and the measures of the financial performance; and to test the significance of the relationship between capital structure ratios and financial performance ratios.

3. Review of Literature

In this section, the previous studies on the relevant issues are discussed. Some of the studies revealed the result in favor of the connection between capital structure and the financial performance, however, some of the studies discovered against it.

Exploration on the model of capital structure was firstly endeavored by the ground-breaking work of Modigliani and Miller (1958). Their paper on the capital structure which is known as the irrelevance theory of capital structure enthused researchers to argue on this subject. This controversy is still in an ongoing process. Nevertheless, with the passage of period, several new dimensions of the theory have been appended to the question of relevance or irrelevance of the composition of capital structure.

Modigliani and Miller (1958) made two 'propositions' under the condition of an idyllic capital market. In their first proposition, they showed that the worth of a company is independent of its capital structure. They affirmed that in a world of ideal capital markets, optimal capital structure is absent. This proposition has been supported by the studies of Schwartz and Aronson (1979), Hamada (1969), and

Stiglitz (1974). Nonetheless, their theory was considered irrelevant theory because of the assumption of rational economic behavior and perfect market conditions. In support of this criticism, Chaganti et al. (1995) showed that this assumption has limited applicability to small firms only. In the second proposition, Modigliani and Miller articulated that a leveraged firm's equity cost is identical to an unleveraged firm's equity cost plus an extra amount for premium for additional financial risk. This implies that there is no superfluous value in a firm if the firm employs any additional leverage. This is because the risk aroused due to the employment of excess leverage is moved from one investor to another. Hence, it remains the total risk of the firm as constant.

In later period, the MM model has been broadened by taking extensive studies by many researchers. Myers and Majluf (1984) advocated that companies will primarily be dependent on the funds which are generated within the companies. With the absence of unbalanced information, a highly profitable firm is expected to use lower-level debt capital. However, firms use debt capital to minimize the agency cost by paying interest amounts (Jensen and Meckling, 1976).

Following these theories, a myriad of researchers had been conducting several studies to unmask the affiliation between firms' usage of debt level and performance of the firms. Among them, a group of researchers have found positive relationship and another group has found a negative relationship. However, some of the researchers have concluded with no connection between debt level and the performance of the organization.

Studies that are conducted by Taub (1975), Hutchinson (1995), Lewellen (1995), Wald (1999), Hadlock and James (2002), Madan (2007), Zeitun and Tian (2007), Nrmalatasan and Brabete (2010), Nirajini and Priya (2013) etc. have been shown an affirmative linkage between leverage and the financial outcome of the firms. As, Nirmalatasan and Brabete (2010) examined the impact of the composition of capital structure on the profitability of the manufacturing companies that enlisted in Sri Lanka. They used debt-equity ratio (DER) to measure capital structure and gross profit ratio (GPM), operating profit ratio (OPM) and net profit ratio (NPM) to measure the firms' profitability. Their findings showed a strong positive link between capital structure and profitability of the Sri Lankan firms. Similarly, in another study Nirajini and Priya (2013) employed debt to asset ratio (DAR), debt-equity ratio (DER) and long term debt ratio (LTDR) as the measure of capital structure and gross profit margin (GPM), net profit margin (NPM), return on capital employed (ROCE), return on asset (ROA) and return on equity (ROE) as the measure of profit performance. They also found a positive propinquity between capital structure and firms' financial outcome.

On the other hand, studies that are conducted by Fama and French (1998), Hammes (1998), Majumdar and Chhibber (1999), Gleason et al (2000), Hammes (2003), Jermias (2008), Cheng (2009), Krivogorsky et al (2009), Wang et al (2010), and Pratheepkanth (2011) have been shown an adverse association between the debt level and the outcome of investment of the firm. As for instance, Fama and French (1998) demonstrated that the exorbitant use of the leverage in the firm could produce agency problems that ultimately result in an adverse impact on the outcome of the firm. This result was also supported by the studies of Majumdar and Chhibber (1999). In another study, Gleason et al (2000) have proved a significant inverse association between leverage and return on asset (ROA). Similarly, Jermias (2008) and Cheng (2009) showed a significant negative associations between leverage and firm's financial result in their respective studies.

Though the above authors were able to show positive and negative association separately, some authors were shown a mix of results that is both mixes of affirmative and negative association between capital structure and the output of the firms in their respective studies. Such as kinsman and Newman (1998), Mesquita and Lara (2003), Abor (2005), Chen et al (2008) and Ebaid's (2009) studies are mentionable. Mesquita and Lara (2003) have divided the total capital into two parts – long and short-term capital. They have shown that the long term debt (LTD) was inversely related and short term debt (STD) was positively allied with the firm's profit performance which is a gauge by return on equity (ROE). Similarly, Abor (2005) has also proved the same result that is short term debt is interconnected in a positive way and long term debt is linked in a negative way with return on equity (ROE). Their result indicates that a firm using excessive debt earns less in the long run as opposed in the short run. However, Kinsman and Newman (1998) have found the opposite results. They have shown that debt used for a short period and earnings are inversely related, and debt used for longer-term and earnings are positively related. In addition to these, Ebaid (2009) have proved that both current and non-current debt has an inverse effect on the organization's performance that is assessed by return on asset (ROA). Nakhaei and Jafari (2015) found that the configuration of capital and the firms' performance (as evaluated by ROA, Economic Value Added and Annual return from stock) of Tehran is significantly inversely related while they also showed that firms' performance is directly correlated with the free cash flow of the firms.

However, some works have established an insignificant and no association between capital structure and firms' financial result. As, Philips and Sipahioglu (2004) have found an insignificant tie-in between different debt levels and a firm's financial outcomes. Carpentier (2006) has revealed the absence of a significant association between the variation in debt level and the change in firm value. Similarly, San and Heng (2011) have shown that return on asset (ROA) and return on equity (ROE) were not related with the level of debt.

Recently, Al-Qudah (2017) have examined this issue using companies listed in Abu Dhabi Securities Exchange. He has used debt ratio (DER) to quantify the capital structure and return on asset (ROA) and return on equity (ROE) to appraise the financial result. They have proved that debt ratio is linked with return on asset in a positive way but with return on equity in an inverse way.

The due diligence inquiry of the literatures on capital structure and financial outcome of different firms indicates that, this issue is still debatable. Especially, there is no universal agreement among authors in using measures of capital structure and that of financial performance. Different authors used different measures of capital structure ratios and financial performance ratio in their respective studies. In addition to this, the case for Bangladeshi firm is rare. Therefore, in this paper, this issue is reexamined by introducing different measures that cover majority of the studies with concentration on data from some of Bangladeshi listed companies.

4. Methodology

In this study, five cement companies are selected which are registered in Dhaka Stock Exchange (DSE). In order to accomplish the objectives of the study, financial ratios related to the configuration of capital and the performance are used. To measure financial performance gross profit margin (GPM), net profit margin (NPM), return on assets (ROA), return on equity (ROE) and return on capital employed (ROCE) are used. To measure capital structure debt to equity (DER), debt to total asset (DAR), long term debt to total asset (LTDR) and proprietary ratios (ProR) are used. Table 01 is represented with the calculation formula for these financial ratios.

Table 01: Formula for determining capital structure and performance ratios

Capital Structure Ratios**			Performance Ratios**		
Debt to Equity	DER	$\frac{\text{Total Debt}}{\text{Total Equity}}$	Gross Profit Margin	GPM	$\frac{\text{Gross Profit}}{\text{Net Sales}}$
Debt to total Asset	DAR	$\frac{\text{Total Debt}}{\text{Total Asset}}$	Net Profit Margin	NPM	$\frac{\text{Net Profit}}{\text{Total Revenue}}$
Proprietary ratio	ProR	$\frac{\text{Shareholders' Equity}}{\text{Total Tangible Asset}}$	Return on Asset	ROA	$\frac{\text{Net Profit}}{\text{Total Asset}}$
Long term Debt total Asset	LTD R	$\frac{\text{Long Term Debt}}{\text{Total Asset}}$	Return on Equity	ROE	$\frac{\text{Net Profit}}{\text{Shareholders' Equity}}$
			Return on Capital Employed	ROCE	$\frac{\text{Net Operating Profit}}{\text{Capital Employed}}$

**These formulae are adopted from various literature studies. DER is adopted from the study of Nirmalatasan and Brabete (2010), Nirajini and Priya (2013), Al-Qudah (2017). DAR from Nirajini and Priya (2013). LTDR from Mesquita and Lara (2003), Nirajini and Priya (2013). GPM is adopted from the study of Nirmalatasan and Brabete (2010), Nirajini and Priya (2013). NPM from Nirmalatasan and Brabete (2010), Nirajini and Priya (2013). ROA from Gleson et al (2000), Ebaid (2009), San and Heng (2011), Nakhaei and Jafari (2015), Al-Qudah (2017). ROE from Mesquita and Lara (2003), San and Heng (2011), Nirajini and Priya (2013), Al-Qudah (2017). ROCE from Nirajini and Priya (2013).

The required data are collected from the annual reports from July 2008 to June 2019 which are available in the desk of Dhaka Stock Exchange. These collected data are recorded in Microsoft Excel (2010) and then the required ratios are calculated. Then all of the calculated ratios are inserted to Statistical Package for the Social Science (SPSS) software.

To determine the affiliation between capital structure ratios and performance ratios Pearson correlation technique and regression models are used. To test the significance of the relationship ANOVA technique is employed.

5. Research Hypothesis

Based on the objectives of this paper the following research hypotheses are set.

H₀: There is absence of a significant association between capital structure ratios (DER, DAR, LTDR and ProR) and the financial performance ratios (GPM, NPM, ROA, ROE, and ROCE).

H₁: There is a significant association between capital structure ratios and financial ratios.

6. Results and Discussion

In this section the correlation, ANOVA and regression techniques are run through SPSS and discussed the output to examine the stated objectives of this study.

Correlation Test result analysis

Correlation is applied to ascertain the connection between capital structure and financial performance of the selected firms. Table 02 is developed with showing the correlation test results and the p-values are presented within parentheses.

Table 02: Correlation result between capital structure ratios and performance ratios

	GPM	NPM	ROCE	ROA	ROE
DER	– 0.369** (0.006)	– 0.172 (0.210)	– 0.387** (0.004)	– 0.30 (0.826)	– 0.346** (0.01)
DAR	– 0.368** (0.006)	– 0.102 (0.457)	– 0.456** (0.000)	– 0.422** (0.001)	– 0.413** (0.002)
LTDR	0.003 (0.981)	0.448** (0.001)	– 0.342* (0.011)	– 0.375** (0.005)	0.268* (0.048)
ProR	0.087 (0.525)	– 0.329* (0.014)	0.292* (0.030)	0.242 (0.075)	– 0.438** (0.001)

** . Correlation is significant at 0.01 level.

* . Correlation is significant at 0.05 level.

From the table above, it is observed that gross profit margin (GPM) is inversely connected with both debt equity ratio (DER) and debt to total asset ratio (DAR) at 1% significant level. This implies that any changes in debt level inversely influence the profit performance that measured by gross profit margin (GPM). However, GPM is not related with both long term debt ratio (LTDR) and proprietary ratio (ProR). This means that the affiliation between GPM and LTDR and ProR is not significant.

There is a positive and significant linkage between net profit margin (NPM) and long term debt ratio (LTDR) at 1% significant level. This means that the changes in long term debt with respect to total asset can influence the net profit positively. However, it is noticed that NPM and proprietary ratio (ProR) is inversely linked at 5% significant level. This implies that any change in shareholders' equity with respect to the total asset can inversely influence the net profit of the selected firms. On the other hand there are no significant association between NPM and DER and DAR.

It is noticed from the table that return on capital employed ratio (ROCE) is significantly related with all the capital structure ratios where it is inversely associated with DER, DAR and LTDR but positively related with ProR. These results implies that any change in debt level can influence significantly the return on capital employed.

The correlation value between return on asset (ROA) and DAR is – 0.422 and ROA and LTDR is – 0.375 at 1% significant level. These demonstrate that ROA is inversely related with DAR and LTDR. However, there are no significant association between ROA and DER and also no relation between ROA and ProR.

Finally, it is observed that return on equity (ROE) is significantly allied with all the ratios of capital structure. ROE is negatively related with DER, DAR and ProR but positively related with LTDR.

Analysis of Variance (ANOVA)

The ANOVA test is run to figure out the significant relation between variables. Table 03 is represented the test result considering GPM as dependent variable. From this table, it is found that debt equity ratio (DER) and debt to total asset ratio (DAR) are significant because in both cases F statistic (8.352 and 8.317) is greater than critical (4.0012) value with p-value (0.006 and 0.006) less than 0.005. These result imply that there is a significant relationships between GPM and DER, and GPM and DAR. However, the relationships between GPM and ProR, and GPM and LTDR are not significant as the F statistic (0.001 and 0.409) is lower than critical value.

Table 03: ANOVA test result (Dependent Variable: GPM)

		Sum of Squares	df	Mean Square	F	Sig.
DER	Regression	0.041	1	0.041	8.352	0.006
	Residual	0.259	54	0.005		
	Total	0.300	55			
DAR	Regression	0.041	1	0.0041	8.317	0.006
	Residual	0.259	54	0.005		
	Total	0.300	55			
LTDR	Regression	0.001	1	0.000	0.001	0.981
	Residual	0.300	54	0.006		
	Total	0.300	55			
ProR	Regression	0.002	1	0.002	0.409	0.525
	Residual	0.289	54	0.006		
	Total	0.300	55			

Table 04 shows that 12% change in GPM is explained by DER and 11.9% change in GPM is explained by DAR.

Table 04: Model Summary (Dependent Variable: GPM)

	R	R Square	Adjusted R Square
DER	0.369	0.136	0.120
DAR	0.368	0.136	0.119

	R	R Square	Adjusted R Square
LTDR	0.003	0.000	0.019
ProR	0.087	0.008	0.011

Table 05 demonstrate that the relationships between NPM and LTDR (F statistic: 13.289), and NPM and ProR (F statistic: 6.428) are significant but the relationship between NPM and DER (F statistic: 1.611), and NPM and DAR (F statistic: 0.561) are not significant.

Table 05: ANOVA test result (Dependent Variable: NPM)

		Sum of Square	df	Mean Square	F	Sig.
DER	Regression	0.007	1	0.007	1.611	0.210
	Residual	0.217	54	0.004		
	Total	0.224	55			
DAR	Regression	0.002	1	0.002	0.561	0.457
	Residual	0.221	54	0.004		
	Total	0.224	55			
LTDR	Regression	0.045	1	0.045	13.289	0.001
	Residual	0.179	54	0.003		
	Total	0.224	55			
ProR	Regression	0.024	1	0.024	6.428	0.014
	Residual	0.199	54	0.004		
	Total	0.224	55			

From table 06, it is observed that 18.5% of NPM is explained by LTDR and 9.1% of NPM is explained by ProR.

Table 06: Model Summary (Dependent Variable: NPM)

	R	R ²	Adjusted R ²
DER	0.172	0.029	0.011
DAR	0.102	0.010	0.008
LTDR	0.448	0.200	0.185
ProR	0.329	0.108	0.091

The F statistics in case of the relationships between ROCE and all of the capital structure ratios (Table 07) are 9.318 (with DER), 13.884 (with DAR), 7.038 (with

LTDR) and 4.952 (with ProR). It is noticed that all of these values are greater than critical value (and also p-value less than 0.5). This evince the significant relationships between ROCE and all the capital structure ratios.

Table 07: ANOVA test result (Dependent Variable: ROCE)

		Sum of Square	df	Mean Square	F	Sig.
DER	Regression	0.182	1	0.182	9.318	0.004
	Residual	1.033	54	0.019		
	Total	1.214	55			
DAR	Regression	0.252	1	0.252	13.884	0.000
	Residual	0.962	54	0.018		
	Total	1.214	55			
LTDR	Regression	0.142	1	0.142	7.038	0.011
	Residual	1.072	54	0.202		
	Total	1.214	55			
ProR	Regression	0.104	1	0.104	4.952	0.030
	Residual	1.111	54	0.021		
	Total	1.214	55			

Table 08 is represented that 13.3%, 19.3%, 10.1% and 6.8% changes in ROCE are explained by DER, DAR, LTDR and ProR respectively.

Table 08: Model Summary (Dependent Variable: ROCE)

	R	R Square	Adjusted R Square
DER	0.387	0.150	0.133
DAR	0.456	0.208	0.193
LTDR	0.342	0.117	0.101
ProR	0.292	0.085	0.068

The findings from the table 09 shows that DAR and LTDR are significantly related with ROA with F statistic: 11.509 and 8.673 respectively which are greater than critical value of F statistic. However, DER and ProR are not significantly related.

Table 09: ANOVA test result (Dependent Variable: ROA)

		Sum of Square	df	Mean Square	F	Sig
DER	Regression	0.005	1	0.005	0.049	0.826
	Residual	4.890	54	0.092		
	Total	4.895	55			
DAR	Regression	0.873	1	0.873	11.509	0.001
	Residual	4.021	54	0.076		
	Total	4.895	55			
LTDR	Regression	0.688	1	0.688	8.673	0.005
	Residual	4.206	54	0.739		
	Total	4.895	55			
ProR	Regression	0.286	1	0.286	3.289	0.075
	Residual	4.609	54	0.087		
	Total	4.895	55			

From table 10, it is evident that 16.3% of ROA and 12.4% of ROA are explained by DAR and LTDR respectively.

Table 10: Model Summary (Dependent Variable: ROA)

	R	R Square	Adjusted R Square
DER	0.030	0.001	0.018
DAR	0.422	0.178	0.163
LTDR	0.375	0.141	0.124
ProR	0.242	0.058	0.041

In table 11 all of the capital structure ratios that is DER, DAR, LTDR and ProR are significantly related with ROE as it is seen that all of the F statistic values (7.188, 10.906, 4.049 and 12.598) are greater than the critical value (4.0012).

Table 11: ANOVA test result (Dependent Variable: ROE)

		Sum of Square	df	Mean Square	F	Sig
DER	Regression	0.313	1	0.313	7.188	0.010
	Residual	2.309	54	0.044		
	Total	2.622	55			

		Sum of Square	df	Mean Square	F	Sig
DAR	Regression	0.448	1	0.448	10.906	0.002
	Residual	2.175	54	0.041		
	Total	2.622	55			
LTDR	Regression	0.188	1	0.188	4.049	0.048
	Residual	2.434	54	0.046		
	Total	2.622	55			
ProR	Regression	0.504	1	0.504	12.598	0.001
	Residual	2.119	54	0.040		
	Total	2.622	55			

Table 12 shows that 10.3%, 15.5%, 5.4% and 17.7% of variability in ROE are explained by DER, DAR, LTDR and ProR respectively.

Table 12: Model Summary (Dependent Variable: ROE)

	R	R Square	Adjusted R Square
DER	0.346	0.119	0.103
DAR	0.413	0.171	0.155
LTDR	0.268	0.072	0.054
ProR	0.438	0.192	0.177

Regression Analysis

Regression model is employed to verify the significance of the coefficients of all variables and thereby test the impact capital structure ratios (independent variables) on the firm's financial outcome (dependent variables). Table 13 is represented the coefficient values with the respective p values within parentheses.

Table 13: Regression Output

	DER		DAR		LTDR		ProR	
	α	β	α	β	α	β	α	β
GPM	0.151** (0.000)	— 1.053** (0.006)	0.133** (0.000)	— 0.099** (0.006)	0.089** (0.006)	0.003 (0.981)	0.081** (0.000)	0.021 (0.525)
NPM	0.099** (0.000)	—0.423 (0.210)	0.085** (0.000)	—0.024 (0.457)	— 0.009** (0.006)	0.400** (0.001)	0.104** (0.000)	— 0.068* (0.014)

	DER		DAR		LTDR		ProR	
	α	β	α	β	α	β	α	β
ROCE	0.012 (0.791)	2.221** (0.004)	0.034 (0.322)	0.247** (0.000)	0.291** (0.000)	-0.712* (0.011)	0.081* (0.020)	0.141* (0.030)
ROA	0.276** (0.008)	0.350 (0.826)	0.496** (0.000)	- 0.460** (0.001)	0.626** (0.000)	- 1.566** (0.005)	0.196** (0.006)	0.235 (0.075)
ROE	0.064 (0.220)	0.330** (0.002)	0.034** (0.000)	0.818** (0.002)	0.032 (0.704)	0.819* (0.048)	0.340** (0.000)	- 0.311** (0.001)

** indicates significance at 0.01 level and * indicates significance at 0.05 level.

Considering GPM as dependent variable, the β coefficients of DER (-1.053) and DAR (-0.99) are significant. In both cases, the p values are less than α value of 5%. This result in rejection of null hypothesis that is there are no alliance between GPM and capital structure ratios (DER and DAR). This typifies that the changes in DER and DAR significantly influence GPM in inverse way. However, LTDR and ProR are not significant as the null hypothesis cannot be rejected.

Similarly, the null hypotheses of there are no relationship between NPM and LTDR ($\beta = 0.4$ and p-value = 0.001) and NPM and ProR ($\beta = 0 - 0.068$ and p-value = 0.014) are rejected. This indicates that NPM is significantly related with LTDR in positive way and with ProR in negative way.

It is also observed in the same way that all the capital structure ratios are significantly related with ROCE and ROE. But only DAR and LTDR are related with ROA.

7. Conclusion

The examination of the effects of the composition of capital on the financial outcome of the listed cement companies in Bangladesh is the core objectives of this paper. Through the meticulous study of literatures four measures of capital layout and five measures of financial performance are selected. Debt-equity ratio (DER), debt to total asset ratio (DAR), long-term debt ratio (LTDR) and proprietary ratio (ProR) are used as capital structure ratios and gross profit margin (GPM), net profit margin (NPM), return on capital employed (ROCE), return on asset (ROA) and return on equity (ROE) are utilized as financial performance ratios.

The required data from the year July 2008 to June 2019 are collected from annual report which are available in Dhaka Stock Exchange (DSE). The data are recorded in MS Excel and the selected ratios are determined that result in total of 540 observations. To fulfill the objectives of this research, correlation, ANOVA and regression techniques are applied by using statistical packages for social science (SPSS) software.

The result of this research work reveals the mixes of association that is both positive and negative association between the composition of capital and the financial performance ratios. Both ROCE and ROE are influenced by the all of the capital structure ratios (DER, DAR, LTDR and ProR). DER and DAR negatively influenced GPM. LTDR positively influence NPM however ProR negatively influence NPM. Finally, ROA negatively influence by DAR and LTDR however positively influence by ProR.

Overall, it can be concluded that, the result of this study disclose the mix of both positive and negative affiliation between capital structure and financial performance of selected companies of Bangladesh. The results of this study support the studies conducted by Kinsman and Newman (1998), Mesquita and Lara (2003), Abor (2005), Ebaid (2009).

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FACTORS AFFECTING THE CHOICE OF A CAREER AS PROFESSIONAL ACCOUNTANTS: PERSPECTIVE OF ACCOUNTING GRADUATES

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Abstract

The paper examines the accounting graduate's perception on accounting profession. Preceding studies indicate that perception of accounting graduates have significant effect on choosing their profession. We have tried to figure out eight variables that have an impact on graduates' perception of choosing career as professional account. These eight variables than translated into fifteen questions and this questionnaire were distributed to accounting graduates of four two public and three private and two national universities. We have received about 112 questionnaires in useable format. We have used descriptive and regression analysis techniques in order to analyze these data. The research result shows that out of eight independent variables salary, advisory received, financial assistance and opportunity to advancement have significant relationships with choice of a career as professional accountant. The findings of the paper may help professional bodies as well as educator and related organizations in order to make their effort in such a way that will increase number of professional accounting students in the professional studies.

Keywords: Accounting Graduates, Students' Perception, Accounting Profession, Professional Accountants.

1. Background of the study

Professionally qualified accountants may play a significant impact in ensuring financial accountability in organizations to drive the sustainable development of a country (Lidiyawati & Sahara, 2021). The career in the field of professional accountancy is challenging, dynamic, and highly respected. Moreover, it has appeared as a dedicated field of accounting that contributes to a firm's strategic decisions. Career in professional accounting is considered an excellent career option. Professional accountants enjoy decent compensation with stable employment rate despite fluctuations in the economy. In addition to that this career is equally demanded not only within the country but also across the border.

The economy of Bangladesh is generating consistent growth rate of over 6% for the last two decades with stunning GDP growth of 5.2% in the FY2019-20 despite the Covid-19 pandemic distress. Therefore, the need for qualified professional

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accountants is also increasing. Accounting education must be of high quality in order to produce qualified accountants who can generate and transmit accounting information to decision makers. Accounting education is provided in Bangladesh by many universities as well as two national professional schools, ICMAB and ICAB, to address the demand for highly educated human resources needed for legitimate accounting practices. At present, the required professional accountant in Bangladesh is not less than 15000, according to the professional institutions. Currently, we have not more than 1727 CAs (ICAB, 2020) and 900 CMAs (ICMAB Students Statistics, 2020). So there is a shortage of professional accountants in Bangladesh. According to the UGC (2019), there are 853,977 students under business studies in 46 public universities and 87695 students in 105 private universities. But number of articled students as of 30th June, 2020 is 3993 in ICAB and in ICMAB, no of students participated in June 2019 exam is 8724. The number of registered professional accountant and articled students of Bangladesh is quite low as per the requirements.

Despite significant advancements in the curriculum, training, and examination, total entrance into the CA profession in Bangladesh has remained equivalent to as low as 10% of existing members during the previous five years (World Bank Report on the Observance of Standards and Codes, 2015). Bangladesh is unable to drive its business students to desire for becoming professionally qualified accountants and thereafter the corporate bodies also face the difficulty of the fresh recruitment and retention of qualified accountants. As a result, the shortage of certified accountants in Bangladesh looks to be a serious issue. Moreover, the main reason for why the accounting students are not motivated to pursue professional qualifications remains a mystery to both academics and professional bodies.

As a result, the purpose of this study is to learn about accounting graduates' perceptions that impact their decision to pursue a career in accounting. This research can assist professional organizations in determining a work plan to enhance the number of professional accountants in Bangladesh. In the following part, some previous studies which are relevant to this paper are presented that leads to the research framework of the study. The research methodology is described and the study outcome and the data analysis are presented afterward. In the concluding part the study summarizes the key findings with reference to the study limitations and future research opportunities.

2. Literature Review and Model Development

According to International Federation of Accountants (IFAC), "a professional accountant is a person who has expertise in the field of accountancy, achieved through formal education and practical experience, and who demonstrates and maintains competence, complies with a code of ethics, is held to a high professional

standard, and, is subject to enforcement by a professional accountancy organization or other regulatory mechanism". That is to say, qualified professional accountants are well-educated and mostly work as auditors and/or tax and finance managers. Many of them, however, operate as company leaders and strategists, as well as corporate finance advisors and policymakers in the state services. Worldwide several studies have looked at the factors that impact accounting students' decision to pursue a career in accounting. Prior studies confirmed that grit personality, financial assistance, and advisory received (Mustapha & Abu Hassan, 2012; Aziz et al., 2017), status or prestige, job security and salary (Abdullah and Zakaria, 2006 and Mustapha and Abu Hassan, 2012), advancement opportunity and perception of students (Omar, 2009 and Abdullah, 2001), all have a significant impact on accounting graduates' choice of their career to pursue qualification for becoming a professional accountant.

Grit

According to Bacanli (2006), personality factors influence career indecisiveness. According to Gunkel et al. (2010), personality qualities have a direct effect on a students' choice of their career. According to Duckworth and Peterson (2007), grit is the most important personal attribute for successful leaders, and grit is defined as tenacity and a drive to achieve long-term goals. Prior research had revealed that adults with more grit had higher educational attainment, implying that grit was a key aspect in an individual's ability to persevere in difficult situations.

Financial Assistance

Myburgh (2005) maintains that one of the main reasons why students do not seek professional accounting qualifications is cost. This studies implied that the cost of qualifying influencing negatively the respondents. Therefore financial assistance may help motivating accounting students go further to enroll in a professional degree.

Advisory received

Parents' (Law, 2010) and teachers' (Myburgh, 2005) influence played a crucial part in persuading pupils to pursue careers as professional accountants. According to Laws (2010), the parent decision influenced the accounting students' career choice in professional accountancy. Advice from influential clan members and the impact of school professors were indicated as the top three sources of information in a survey done by Myburgh (2005) on South African undergraduate students of accounting at the University of Pretoria.

Status or Prestige

Prestige or status affected students' choice of a career in accounting since it was a powerful medium of social acknowledgment. Chartered Accountants, among other accounting professions, were in high demand both at home and abroad for upholding a respected level in society (Jackling et al., 2012).

Job Security

Many studies have shown that job security and stability are important elements in deciding whether or not to pursue a career as an accountant. Mustapha and Abu Hassan (2012) discovered a favorable association between job security and respondents opting to be professional accountants in a study of accounting students in their last year at a Malaysian public university. Job security, according to Abdullah and Zakaria (2006), is an important reason for accounting graduates who want to work as a qualified professional accountant. Another study, conducted by van Zyl and de Villiers (2011), revealed that accounting students prioritized the rank of future positions.

Salary

Abdullah and Zakaria (2006) performed study at two Malaysian state institutions and discovered that the predicted future wage was an essential factor for students interested in working for a public accounting business. According to a study conducted by Ghani et al (2008), first year accounting students consider compensation to be a crucial determinant in an accountant's happiness. According to Horowitz and Riley (1990), one of the most important factors influencing students' career decisions is the income offered to them. Another study by Trump and Hendrickson (1970) indicated that one of the most important employment characteristics for undergraduate accounting majors was starting wage. This conclusion is contradicted by research by Mustapha and Abu Hassan (2012) and Law (2010), which found that compensation was not a strong motivator for students to seek CPA professions. Similarly, Abdul Aziz et al. (2017) discovered that pay had no effect on the motivation to become a trained professional accountant.

Opportunity for advancement

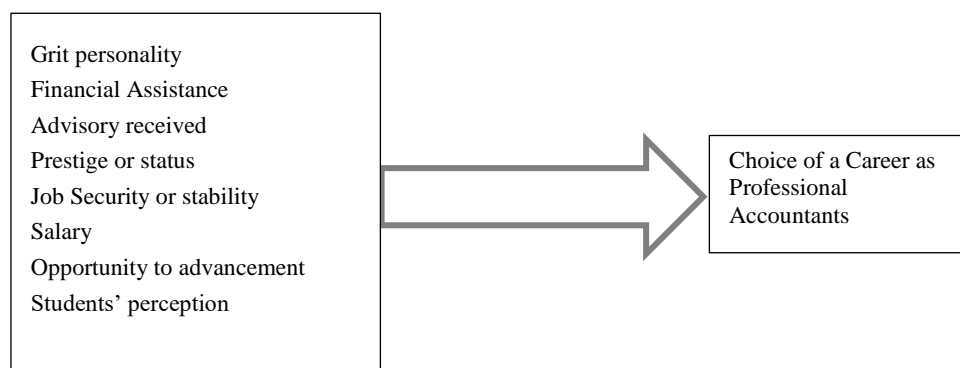
Abdullah and Zakaria (2006) discovered evidence that accounting students who aspire to be CAs value opportunities for progress much more than those who do not. Accounting students' intentions to pursue a profession in accounting, particularly female students are heavily impacted by opportunities for promotion (Mustapha and Abu Hassan 2012).

Students' Perception

There are myriad determinants that have had an influence on accounting students' perception to professional accounting career. According to Omar (2009), the sheer numbers of students opined that the examination of professional accounting programs were daunting task and taken a lot of time or attempts to qualify. This profession was suitable for those who were disciplined and highly committed students along with excellent CGPA. Female students are in a dilemma whether they complete professional accounting programmes or not (Abdullah, 2001).

Several researches have been conducted outside of Bangladesh. According to a study conducted by Akter & Siraj (2018) from the perspective of Bangladeshi students, three variables, such as public versus private university, statuses, and family income, have a substantial association with students' inclination to seek a CA professional qualification. Gender and student CGPA, on the other hand, are seen as unimportant influences. There is a study gap when it comes to examining the elements that influence Bangladeshi students' perceptions of professional examinations. This study took into account eight criteria to close this gap, which is listed below: This research aims to shed light on these eight independent variables collectively drive an accounting student to pursue a career as a professional accountant? The proposed research model is as follows, based on the conversation and research question.

Proposed research model



The model was adapted from Mustapha and Abu Hassan's (2012) study, which shows that the dependent variable is choice of a career as professional accountant and the independent variables are salary, job security or stability, prestige, opportunity to advance, students' perceptions, advisory received, financial assistance, and grit personality.

3. Methodology

This research is aimed to identify why the accounting graduates are not interested in accounting career and investigate the factors that affect perception of accounting graduates' career choice. The quantitative approach is taken with the positivism paradigm. Data collected by using primary source based on employing the questionnaire survey method is used in this analysis. The main factor of using questionnaire method is to reduced time and costs of as compared to personal interviews and it also allows researcher to obtain a broad variety of standardized data from a big sample. We have obtained the questionnaire used in this research from Omar (2009). We have distributed the questionnaires to 550 accounting graduates of two public and three private and two national universities of Bangladesh. We have preferred the graduated accounting students because they would have clear understanding about accounting profession and their career choice as they have more experience, understanding and knowledge about it as compared to the students of first, second, third and fourth year. The questionnaire composed of three parts. In part A, we attempt to know the respondents' plan after graduation. In part B, we have made questions about the influencing factors about their career choice after graduating and respondent's purpose to take a professional test and Part C is concerned with socio-demographic data of respondents. From table 3, we have obtained variables used in the study. We have grouped these 15 questions into 8 independent variables to be used in the study such as grit personality, financial assistance, advisory received, status or prestige, job security, salary, advancement opportunity, and perception of students and a dependent variable such as choice of a career as professional accountant. Respondents were asked to rate their degree of agreement with each of the statements on a seven-point Likert scale (1=strongly disagree to 7=strongly agree).

3.1 The proposed model for the study is shown below:

$$CCPA = \alpha + \beta_1 SR + \beta_2 OA + \beta_3 PS + \beta_4 OFA + \beta_5 SP + \beta_6 AR + \beta_7 FA + \beta_8 GP + \varepsilon$$

Where,

CCPA	=	Choice of a career as professional accountants
α	=	intercept
GP	=	Grit personality
FA	=	Financial Assistance
AR	=	Advisory received
PS	=	Prestige or status
JS	=	Job Security
SR	=	Salary
OA	=	Opportunity to advancement
SP	=	Students' perception
ε	=	Errors

We have analysed data by using descriptive statistics and regression analysis. In order to analyse, we have inputted these data into the Statistical Package for the Social Sciences (SPSS) software. Frequency and means analysis are used mainly in analysing the profile of the respondents such as gender, name of university, CGPA, earning members in family, average annual family income and future plan after graduation such as planning after graduation, intention to pursue professional qualification, preferred professional programs to pursue, and knowledge of professional programs, while variables influencing choice of a career as professional accountant are analyzed using multivariate regressions.

4. Results and discussions

4.1 Profile of respondents

Our first part of the questionnaire was about demographic information about respondents. In this section, we have made five questions to have overview about the demographic profile of the respondents. These five questions were asked to have knowledge about respondents' gender, university type, CGPA, earnings members in the family and average earnings member of the family.

As the below table shows that, analysis of respondent's gender indicates that about 77.7% respondents are male and 22.3% are female respondents and most of the respondents are from public university which is about 89.3%. Most of the respondents (59.3%) secured a moderate CGPA that ranges from 3.00 to 3.49. Information about earnings members of their family shows that, majority of the respondents' (57.7%) family have only 1 earnings member and most of theirs (66%) average annual earnings is below 3 lakh.

Table 1: Demographic information

Demographic Factors	n	Percentage
Gender:		
Male	87	77.7
Female	25	22.3
University:		
Public	100	89.3
Private	7	6.3
National	5	4.5
CGPA:		
2.50-2.99	24	21.4
3.00-3.49	62	59.8
3.50-4.00	21	18.8
Earnings Member in Family:		
Only 1	64	57.7
2 to 3	41	36.9
More than 3	6	5.4

Average Annual Family Income:		
Less than 1 Lakh	37	33
1 Lakh to 3 Lakh	37	33
3 Lakh to 5 Lakh	22	19.6
5 Lakh to 7 Lakh	7	6.3
More than 7 Lakh	9	8

4.2 Future planning after graduation

The bellow table shows descriptive analysis about the respondents' future plan after graduation. In this section, we wanted to know about their intention by asking them four questions. Based on the response, we can see that, the respondents want to work immediately is about 65.2% and 28.6% of the respondents want to go for further study. Apart from that, the respondents also asked of their intention to pursue professional qualification and about 62.5% of the respondents have the intention to pursue professional degree. It reveals that most of the respondents (52.7%) choose CA as their intended professional degree. The respondents were also asked about their sources of knowledge about professional programs and the survey shows that majority of the respondents become aware about the professional programs either from lecturers and academic advisor at their institution (38.4%) or from seminar/workshop/exhibition (28.6%).

Table 2: Future plan after graduation

		n	Percentage
What are your plans after graduation?	To work immediately	73	65.2
	To further study	32	28.6
	Others	7	6.3
Do you plan on pursuing a professional qualification?	Yes	70	62.5
	No	42	37.5
Which professional program would you take if you had to make a decision?	CA	59	52.7
	CMA	6	5.4
	ACCA	8	7.1
	Others	39	34.8
How did you become aware of the professional programs?	From your institution's professors and academic advisors	43	38.4
	From Seminar/workshop/exhibition	32	28.6
	From newspaper through advertisement	3	2.7
	Notice board at university	1	0.9
	Website of the Organization	6	5.4
	From friends	27	24.1

4.3 Students' perception of professional qualification

The table below presents descriptive data for assertions about choice of a career as professional accountants. Respondents were asked total 15 questions grouped into 8 segments such as grit personality, financial assistance, advisory received, status or prestige, job security, salary, advancement opportunity, and perception of students that may or may not affect the choice of a career as professional accountants.

Table 3: Descriptive statistic of the statements

Variables	n	Mean	St. Deviation
Professional graduates are paid higher than university graduates.	112	6.01	1.174
Many people opt to take professional exams after graduation because of the high pay.	112	5.61	1.211
Professional accountant's career is highly secured.	112	5.16	1.498
Other professional job is not as flexible as compared to accounting profession.	112	3.91	1.680
The field of accounting profession is more stable as compared to others.	112	3.79	1.690
Professional accountants get better opportunity for promotions.	112	5.68	1.224
Accounting is a professional sector that offers more options for training to cope with the current client demand.	112	5.43	1.206
Accountants with professional qualification are more respected than accountants with degree in accounting.	112	5.85	1.164
The examination of professional accounting programs were daunting task and taken a lot of time or attempts to qualify	112	5.60	1.069
Family obstacles are considered as factors not to go for the professional examination.	112	5.85	1.210
Age of graduate students is considered as factors not to go for the professional examination.	112	4.84	1.706
Your parents are supportive to you to pursue professional examination.	112	4.98	1.765
Your professors or academic advisor may encourage you to take a professional test.	112	5.37	1.401
The cost of pursuing a professional examination is too expense for graduates.	112	5.32	1.447
Financial support from families and others are available to pursue professional examination.	112	3.89	1.731

4.4 Reliability and validity tests

The data which used in the study are considered reliable and consistent as the Cronbach's alpha coefficient is 0.71 which is more than the minimum stated value of 0.70 (Cortina, 1993). The value of Kaiser-Meyer-Olkin for the data is 0.77 which is greater than 0.50 (Field, 2005) that means that the factor analysis model is appropriate.

4.5 Normality and multicollinearity

The descriptive statistics of the variables used in the study is shown in table 4. The data appears to be normally distributed as the skewness values lies between -2 to +2 and kurtosis values are between -7 to +7 (Hair et al.,2010).

Table 4: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
Salary (SR)	112	11.616	1.973	-1.926	5.852
Job Security (JS)	112	12.857	3.422	-0.283	-0.640
Advisory Received (AR)	112	10.348	2.598	-0.918	0.737
Students' Perception (SP)	112	16.286	2.911	-1.466	3.255
Grit Personality (GP)	112	24.804	3.911	-0.340	0.448
Financial Assistance (FA)	112	9.214	2.315	-0.714	0.804
Prestige or Status (PS)	112	5.848	1.164	-1.861	4.300
Opportunity to Advancement (OA)	112	11.107	1.938	-1.418	3.553

Pairwise correlation coefficient of all the variables used in the study shows in the table 5. The results indicate that as the correlations are below the threshold value of 0.8 (Gujarati, 2003, p. 359), so there is no multicollinearity problem.

Table 5: Pearson correlation test for the variables

	SR	JS	AR	SP	GP	FA	PS	OA
SR	1							
JS	0.24*	1						
AR	0.05	0.22*	1					
SP	0.29*	0.19**	-0.02	1				
GP	0.14	0.16	0.20**	0.11	1			
FA	-0.13	0.18**	-0.11	0.10	0.15	1		
PS	0.34*	0.16	0.16	0.32*	-0.02	-0.01	1	
OA	0.22**	0.28*	0.36*	0.38*	0.09	0.09	0.44*	1

* Significant at the 1% level (2-tailed)

** Significant at the 5% level (2-tailed)

4.6 Regression analysis

In terms of graduates' choice of a career as professional accountant, the regression model is statistically significant ($p < 0.000$). All independent factors were accounted for as independent variables in this model and explained roughly 69% of the variability in graduate students' desire to seek professional qualifications. Out of eight, four variables, namely salary ($\beta = 0.093$; $p < 0.000$), advisory received ($\beta = 0.114$; $p < 0.000$), financial assistance ($\beta = 0.149$; $p < 0.000$), and opportunity to advancement ($\beta = -0.051$; $p < 0.039$) were found to have significant impact on choice of a career as professional accountant. Other variables, namely job security, prestige or status, grit personality, and students' perceptions were not found to be significant factors toward the graduates' choice of a career as professional accountant.

Table 6: Regression result

	B	Std. Error	t	Sig.
Salary (SR)	0.093	0.023	4.098	0.000*
Job Security (JS)	-0.022	0.012	-1.821	0.072
Advisory Received (AR)	0.114	0.017	6.569	0.000*
Students' Perception (SP)	0.015	0.015	0.981	0.329
Grit Personality (GP)	-0.008	0.010	-0.797	0.427
Financial Assistance (FA)	0.149	0.018	8.300	0.000*
Prestige or Status (PS)	0.012	0.039	0.311	0.756
Opportunity to Advancement (OA)	-0.051	0.024	-2.092	0.039*

* Significant at the 1% level (2-tailed)

** Significant at the 5% level (2-tailed)

5. Conclusion and Recommendations

Public accounting profession is one of the most renowned and prominent professions in Bangladesh. However, it is having difficulty persuading graduates to pursue professional degrees, and firms are having difficulty recruiting and retaining accountants. The objective of this research is to learn about accounting graduates' views on taking professional tests and to investigate the factors that impact accounting graduates' career goals of becoming professional accountants.

The result demonstrates that salary, financial assistance, and advisory received positively and significantly influence the interests of accounting graduates to become a public accountant. Apart from that, the current findings also observed that opportunity to advancement is negatively associated with the interest of accounting graduates. The findings generated from this study were consistent with some extant

observations (Myburgh, 2005 and Ghani et al., 2008). This implies that the future predicted wage and qualifications costs are essential factors for graduates' interest in working as a professional accountant. These results can be explained through analyzing the economic and social context of Bangladesh. The study result (demographic profile of the respondent) confirmed that most of the respondents are from low or lower middle class income group. Moreover most accounting graduates have got a very minimal financial support for continuing their study. Therefore the financial assistance and salary played significant role in attracting the graduates to choose public accounting profession that require incurring additional cost and sacrificing opportunity cost of immediate employment. In addition to that, it is also interesting to note that 67% of respondents become aware of the professional programs through academic advisors and from seminar or workshop. This is consistent to the point that advisory received is positively associated to the interest of accounting graduates. However it seems that opportunity to advancement in career is negatively associated to draw the interest in professional accountant. One possible reason is that that typical accounting graduates lack interest in growth and mostly they are risk avoiders. In similar vein, this attitude may explain the non-significance of the other variables namely job security, prestige or status, grit personality, and graduates' perceptions.

There are certain drawbacks to this study. For instance, the sample size of this study is rather limited, and only data from university graduates' perceptions at a certain point in time (cross-sectional) is obtained. A longitudinal study with multiple respondents and a broader variety of circumstances may result in a better understanding of the situation. Therefore, future study may take into account additional characteristics such as culture, academic accomplishment, marital status, and other personal values. Despite these flaws, this study adds to the literature by offering information to universities and professions on the factors that influence graduates' job decisions. This research can help both academicians and policy makers. Policy makers may find this study useful designing their long term and short term incentives to attract more accounting graduates to accounting professions by spreading financial and non-financial (advisory) support. The outcomes of this study would also be valuable to accounting instructors in reflecting on whether they have had a significant impact in improving students' comprehension and awareness of the accounting profession. This would then allow them to concentrate on how and what can be done to improve their role in preparing accounting graduates for the practical world.

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CORPORATE DEMAND FOR INSURANCE: AN EMPIRICAL INVESTIGATION FROM BANGLADESH INSURANCE MARKET

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Abstract

The primary purpose of this research is to figure out how well general insurance companies are performing in Bangladesh, and whether there exists any potential or apparent areas of growth. In this research, total 650 Bangladeshi business organizations were surveyed to gather data on corporate protection needs and insurance coverage. Following the survey, the subsequent results were uncovered: As insurance operators can further penetrate the corporate sector, and most business organizations indicated a willingness to spend on insurance, a greater focus on insurance value propositions is required. Moreover, insurance policies are gaining attraction because of the established market, expanded product line, and quality service. However, business firms are heavy reliance on intermediaries which demands a strong collaboration with intermediaries to expand market. Furthermore, business firm concerns about insurance coverage and the correlation between the coverage and business firm attributes which can help insurance companies design better products and effective strategies to suit potential market groups. Although these findings may not be conclusive, they are a good indicator for the insurance industry as a whole and the target market. In addition, the study could help scholars and regulatory authorities discuss opportunities for the ongoing development of the sector.

Keywords: corporate insurance demand, corporate industry, insurance business, business entities, general insurance.

1. Introduction

Following the corporate organizations in developed countries, companies in Bangladesh and developing countries typically buy insurance contracts to protect businesses from the unforeseen hazard. Before getting started, it is crucial to understand why companies purchase so many insurance policies. Recent research revealed that a commonly held perception about company insurance coverage was incorrect; many individuals thought that stockholders were protected from danger while stockholders weren't protected. A modern school of thought states that investors can mitigate the effects of insurable risks by diversifying their portfolios. When putting together, it is clear that risk aversion has a significant impact on

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personal insurance demand, while the impact on corporate insurance demand is ambiguous (Main, 1983; Mayers & Smith, 1990; and MacMinn, 1987).

Government-owned JBC (Jiban Bima Corporation) and SBC (Sadharan Bima Corporation) were the only insurance companies in Bangladesh in the 1970s that offered life and general insurance, respectively, for private citizens and businesses. A private insurance company was established in the country in 1985. As a result, non-government insurers have grown rapidly in setting up organizations, formulating policies, and expanding their business. However, the real competition in the insurance industry has only begun since non-government insurers have gained a foothold. There are still not enough insured people in Bangladesh, as its insurance market is relatively small compared to its overall economic size (Islam & Mamun, 2005). Currently 43 general (non-life) and 17 life insurance companies in Bangladesh, which is insufficient to provide insurance services to approximately 150 million people (BIA, 2000; Siddiqui, 1995; Islam & Chowdhury, 1995).

It is almost the first attempt to study corporate firms' demands for insurance in terms of overall corporate institutions. Previous studies were done on a different industry, which is to say, the insurance industry's re-insurance demand, or on another kind of insurance company, which is to say a specific insurance company.

This study provides a more thorough understanding of the Bangladesh economy and its influence on insurance demand. This study also outlines various factors that influences on corporate insurance demand considering previous studies. Moreover, growth and improvement opportunities of insurance business in Bangladesh also focused in this research.

Finally, giving attention to prospects of demand and opportunities to be opened to businesses helps to position insurance companies. This research is mainly concerned with -

- determining how much target respondents know about insurance and insurance benefits to focus on their security needs.
- assessing how respondents' security needs are met and determining which ones are necessary.
- finding out which factors target respondents consider when obtaining insurance; and
- identifying what aspects of insurance target respondents know about the insurance policy.

2.0 Literature Review

Insurance is vital in today's business world, therefore, analyzing corporate insurance demand is fundamental. In a theoretical model, market defects create a

need for insurance. Prior research looked into the connection between an enterprise's risk and the purchase of insurance. According to these studies, insurance can help business owners and managers avoid financial ruin due to unanticipated losses. To put it another way, risky companies are more likely to buy insurance than those that are less risky (Smith, 1986; Mayers & Smith, 1987; MacMinn & Han, 1990; and Han, 1996).

For instance, Grace & Rebello (1993) found that they would demand insurance if firms had information asymmetry. Thus, insurance has utility as a perceived sign of trustworthiness. MacMinn (1987) developed a model with expensive complications, including bankruptcy and bondholder/corporate management conflict, which had to be factored in. He discovered that corporations purchase insurance to reduce or eliminate the costs of financial failure or employment agencies. In a study conducted by Skogh (1989), it was discovered that the purchase of insurance is in many cases because it is impossible to complete contingent claim contracts. This means that transaction costs are always present in such contracts.

Joe, Mike & Mike (2001) looked into how property insurance in China compares to the risk of investing in publicly traded companies. According to their findings, companies with a high level of operating leverage and systemic risk are more likely to purchase property insurance than other businesses. In addition, foreign-owned businesses appear to spend more on property insurance than domestically owned ones. However, there was no correlation between the two variables (Joe et al., 2001). Moreover, Simone & Mathias (2007) studied German businesses' insurance needs and opined that the size of a company has a negative impact on insurance demand, a strong correlation between insurance demand and policy-damage ratios. That is why businesses with greater losses than the policy's capital demand a more robust insurance package. It is possible that large insurance companies may be less effective at negotiating insurance policy terms if they have greater market power. When compared to other business forms, stock companies buy far fewer policies of insurance. Commercial insurance rates tend to be higher for legally operating businesses than for illegally operating ones. In addition, the need for insurance rises in direct proportion to the number of sales generated by the company's employees (Simone & Mathias, 2007).

Additionally, Kerjan, Raschky & Kunreuther (2009) found that larger companies in the United States were more likely to have more comprehensive disaster insurance. However, insurance against non-catastrophic risks is more elastic than disaster insurance (Kerjan et al., 2009). Mohammad (2010) looked at factors such as underinvestment, debt ratios, growth opportunities, and expected bankruptcy costs to

identify critical factors for prevalent insurance in Malaysia. There is a strong correlation between the amount of debt a company has and the amount of insurance it needs in Malaysia, based on the results of this study (Mohammad, 2010).

3.0 Methodology

3.1 Data Collection and Survey Framework

The authors developed a survey that would help conduct the investigation. Closed-ended questions were used in the survey questionnaire, and respondents had to select from the list of answer options. Multiple choice, Yes-No options, and Likert-type scales were all used for the answer options.

The authors created a bilingual (English and Bangla) questionnaire to reach out to the broader section of the population. A survey was created with three main parts, the first of which was "protection needs and awareness," the second of which was "insurance take-up," and the third of which was "organization profile" (i.e., the respondents). An additional Part D was made more extensively to give people additional opportunities to communicate with them. To implement this research, the authors distributed a total of 650 questionnaires among the respondents and found 603 were usable and complete.

3.2 Target Respondents.

The targeted respondents were 650 corporate organizational entities in Bangladesh (including commercial as well as non-commercial entities), but 603 were usable for this research. For example, various risks associated with day-to-day operations, like property, third-party liability, and business interruptions, and equipment failure, may be covered by insurance.

3.3 Analytic evaluations of Survey Responses

An analysis of the responses was conducted using descriptive and correlational methods. As part of this process, we defined investigation variables and analyzed the interactions between them to establish the characteristics of respondents and explain their frequency distribution.

4.0 Results and Interpretation

4.1 Respondent profile

Both corporations and non-profit organizations completed an exhaustive study on 603 different responses. This involved groups like sole proprietorships, partnerships, government-linked companies (GLCs), public and private companies, and other agencies of the government.

In terms of how many respondents belonged to different types of legal entities, the highest number of respondents (41.62 percent) were private limited companies, while 22.11 percent were for government and 22.11 percent were for public limited companies' 21.24 percent. 11.40 percent of which are Government Linked Companies and sole proprietary trading firms (1.9 percent). For this poll, a small group of respondents was formed into partnerships (1.73 percent).

The length of time for respondents who have been in business for five years or more, and have 30 or more staff or more employees, has shown that A huge percentage of people in the survey had been doing their job for a long time. In addition to the top three business activities that we researched, we discovered that secondary enterprises, such as wholesale/retail sales, construction /property/real estate, and manufacturing, were popular. The following facts are conveyed by Figures 1, 2, 3, and 4, respectively:

- respondents broke down according to the institutional variety
- representation of participants based on the duration of their operations
- correspondence survey in which each responder is uniquely identified by the company for which they work
- the number of respondents' primary business rankings in numbers.

There is a conversation about the many evaluation elements covered in the findings section of the report, as they are all based on the insights discovered in the survey and the market information accessible.

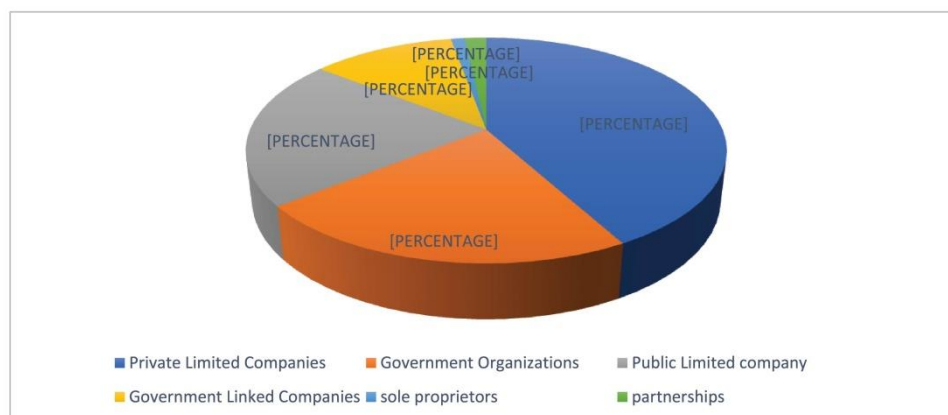


Figure: 1: The composition of respondents is based on the type of institution.

Source: Authors Estimation

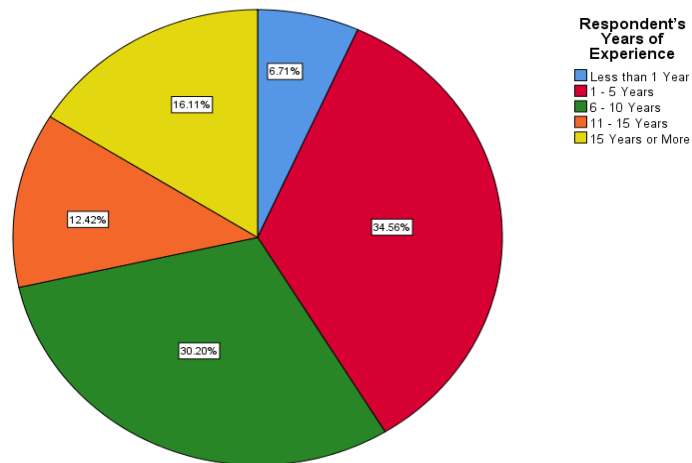


Figure 2: Respondents' distribution by operation time in years
Source: Authors Estimation

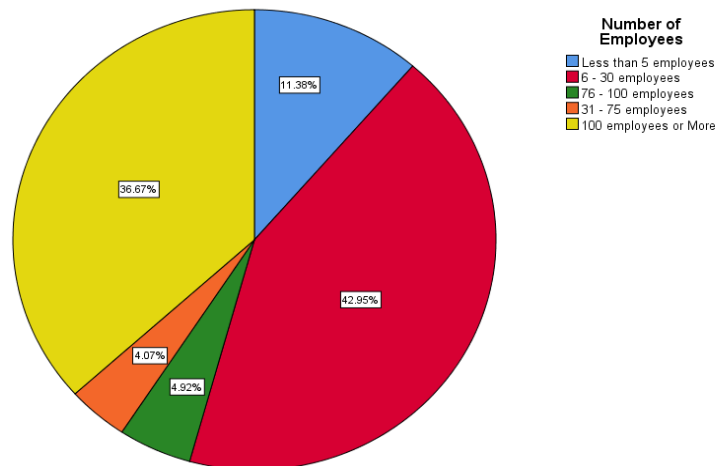


Figure 3: A demographic sample was assembled based on the size of the employees.
Source: Authors Estimation

4.2 Awareness of Insurance Coverage Availability

The primary area of evaluation in the study of the essence of insurance demand is the extent to which target respondents have information about their insurance coverage. In this section, questions are designed to ascertain respondents' knowledge regarding security strategies (i.e., insurance coverage) To protect themselves from financial losses resulting from events such as accidents or business assets getting damaged or becoming damaged.

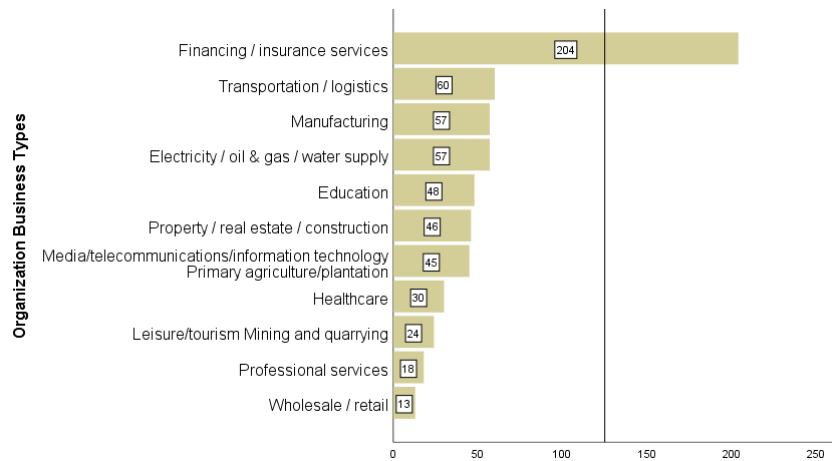


Figure 4: The primary business sector's ranking and the corresponding number of respondents

Source: Authors Estimation

There was usually an appropriate degree of awareness about insurance coverage among the participants. Insurance is made available to protect companies from financial losses resulting from misfortunes when approximately 90% of respondents confirmed their awareness of the availability of insurance. According to the survey, a total of 89 percent of respondents reported that insurance was one of the most significant factors, as they believed they were aware of its availability.

When compared to Figure 5, the rate of insurance knowledge was shorter; for example, 80 percent of survey respondents had insurance knowledge. Insurance knowledge was found to be an area for further development, with almost 50% of those who responded saying they were not aware of any additional details about it. Moreover, only about 31% of respondents appeared to understand the concept of insurance quite well.

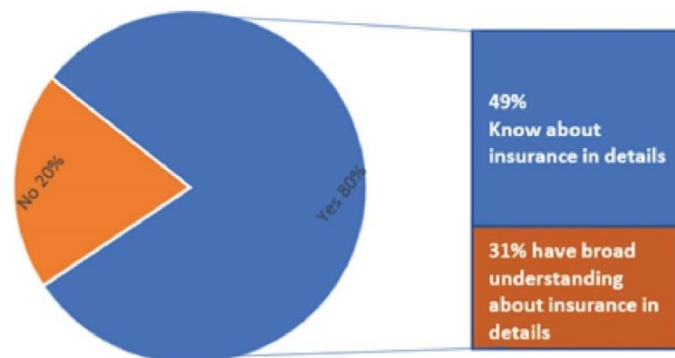


Figure 5: Awareness of the availability of insurance among respondents

Source: Authors Estimation

According to an analysis of survey respondents regarding 'Organization Criterion', companies and institutions with more staff and long-term activities have a higher level of insurance knowledge. As an outcome of the research, it was discovered that it was the government (ministries, agencies, and government-owned corporations) rather than independent entities (sole proprietorships and partnerships) that was more aware of insurance policies (later two had the lowest levels of 17 percent and 15 percent, respectively). These insurance companies may be heavily involved in numerous government ministries or agencies-led initiatives.

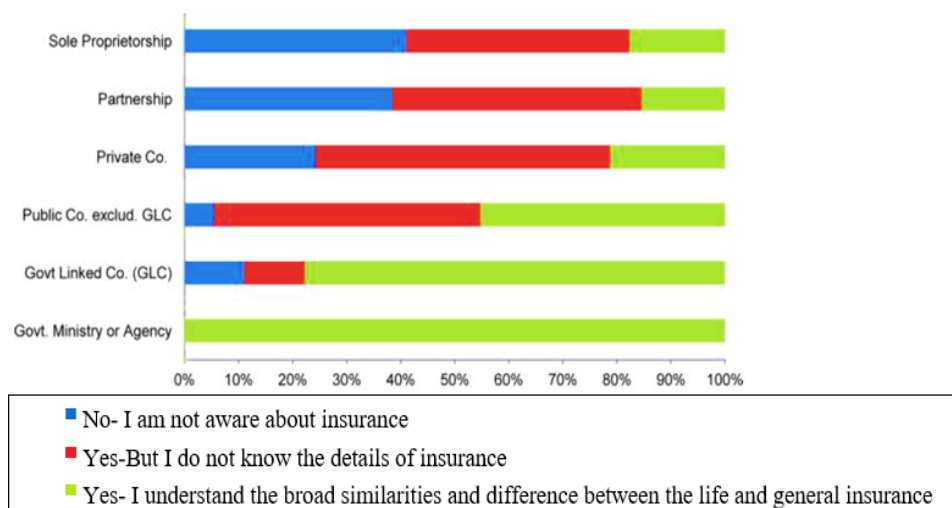


Figure 6. Based on respondents' awareness of insurance, respondents were sorted according to their awareness level.

Source: Authors Estimation

These findings advocate the need to focus on improving insurance awareness to this point. More efforts must be made to improve consumers' attitudes, as well as their awareness of the value of insurance, by both businesses and non-profit organizations. Insurance products should also be presented to the public and the business community to emphasize the various features of the insurance industry (e.g., transferring the protection surplus with qualified customers after the expiry of the insurance contract).

The questionnaire has also been designed to assess the likelihood of respondents taking out insurance or buy insurance. 71% of people in our survey realize importance to seek some kind of protection for their companies and organizations, no matter the risks they feel are significant, without taking into consideration whether they have insurance. The group included respondents (43%) who already had insurance cover and respondents (39%) willing to look at potential premiums.

These findings are highlighted in Figure 7. It is evident that there is excellent potential for the insurance industry based on our study of consumers' attitudes.

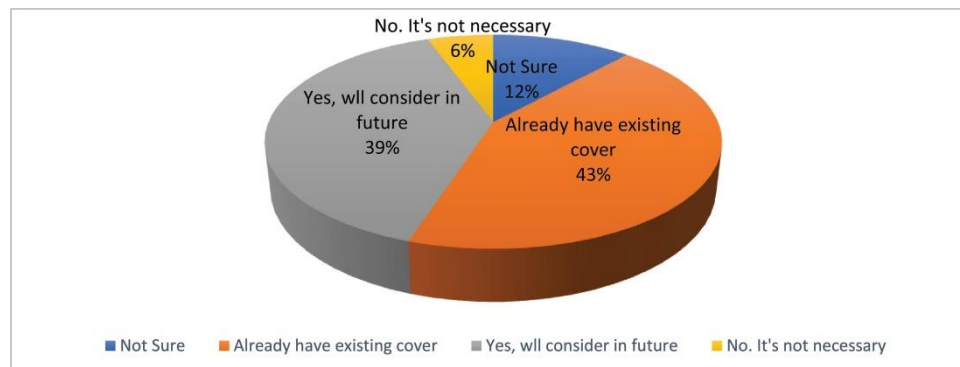


Figure 7. A breakdown of respondents' readiness to purchase insurance based on that decision

Source: Authors Estimation

4.3 Operational protection requirements for businesses and other entities

A prerequisite for ensuring insurance coverage is that consumers place a priority on their security needs. A sample of the target population has been asked to assign importance to the various incident and risk exposures and other institutional matters (e.g., businesses, offices, employee welfare) as stated in the questionnaire.

Even though they were asked about different possible events that could affect them, among the various threats to their enterprise, they considered physical damage to the business the greatest threat. The conclusions were that more than 85% of total claims were paid for lost profits and 75% of claims were paid for defaulted payments. While market risks to be protected against include personal and professional safety, vehicle breakdown, trade credit, and consequential loss, these market risks have relevant products to protect against them. Figure 8 reflects these results.

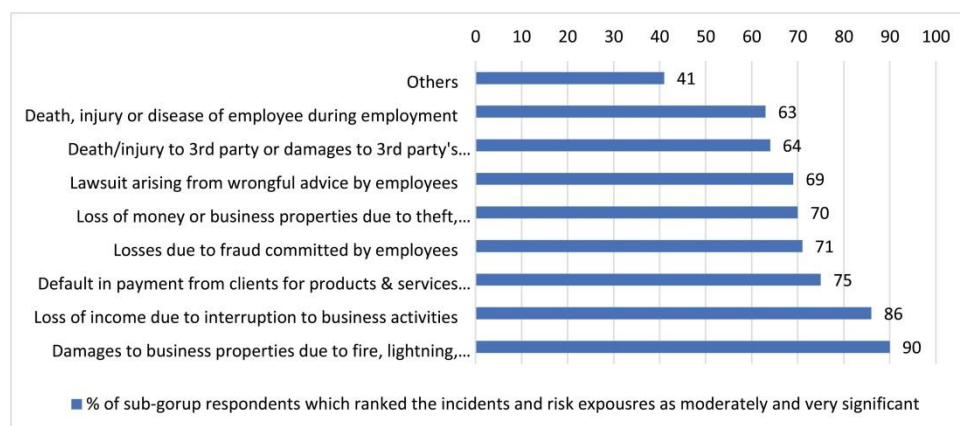


Figure 8. Ranking of their exposures that involves their operations and events which are significant to respondents

Source: Authors Estimation

According to the profiles of the respondents, the top three principal industries are Financing and insurance, Transportation and manufacturing, as seen in figure 4. These business lines are well-known for managing stocks. For lowering the chance of a cash loss, their commitment offers a substantial incentive for insurance policies. In this regard, Yamori (1999) emphasized that the risk of harm depends on the industry. There are other examples like the risk to chemical operators is larger because there are many extremely combustible products in use. The higher risk involved in certain industries could drive up the need for insurance. In this respect, insurance providers' business opportunities are not limited to providing insurance protection tailored to the needs of potential customers. Insurance providers may also provide advisory services to selected customers relating to risk management.

Respondents were surveyed about which of the risk exposures indicated in the questionnaire they experienced, covered by checking off each exposure, after which they were asked if they participated in an insurance plan or if they bought insurance to cover the items listed. The survey includes options for identifying several insurance policies, which the participants can decide.

A surprising number of survey respondents are willing to pay for insurance to cover injuries, break-ins, and property damage: for employee liability, 22% of respondents respond that they were interested; for employees' medical risks, 15% of respondents wanted coverage; and for property damage, there was 15% of respondents demanded insurance. According to the survey, workmen's compensation/liability employers and medical-related insurance products are often purchased. This is because they match product categories with common risk exposures. In addition, there is a lot of demand for fire-related insurance among people who use vaping devices, at 19% of respondents. The share of general insurance in the portfolio 20% is in the second position and matches what the report found when looking at how the various products performed.

Across all risk exposures, Figure 9 demonstrates the respondents with riskier business activities have a greater need for insurance, as evidenced by greater insurance subscriptions. Similarly, the data from the survey confirm that the associated public is aware of insurance issues.

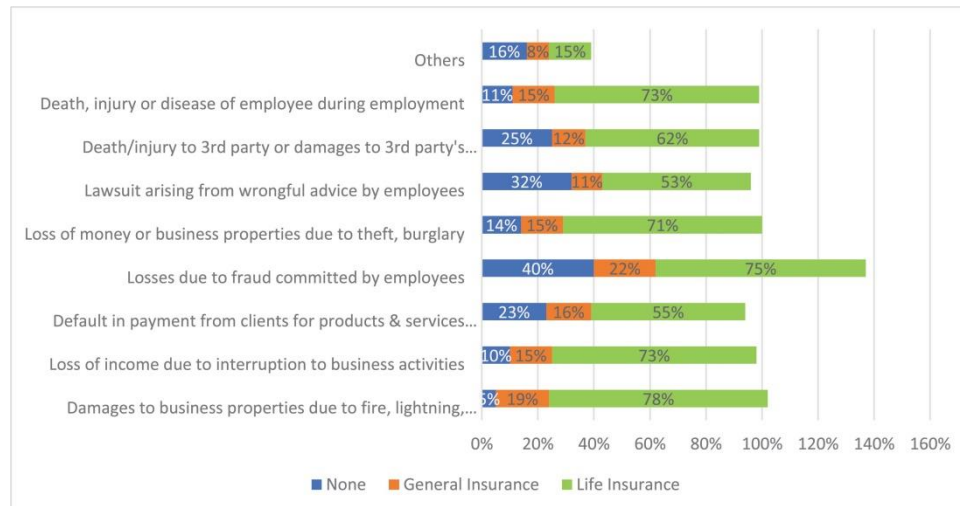


Figure 9: Insurance-related subscriptions for the respondents are categorized by their exposure to risk.

Source: Authors Estimation

Furthermore, the authors tried to find out whether the relationships between the respondents' own individual qualities and their use of insurance were evident. Size (in terms of the number of employees) and time in operation (i.e., length of time the institution has been in business) were used as proxies to select the firms and organizations to participate in the simulation.

Table-1 contains several risk exposures represented by different symbols. As shown in Figures 10 and 11, it appears that the relationship between the age and size of the participants, along with the participation rate of the participants in insurance programs, is positively correlated. Employees and years of operation were key predictors of participation in insurance coverage; the more employees and the longer the years of operation, the more people had participated in any type of insurance coverage. Additionally, as seen in Table 2, the correlation study completed across these variables supports this conclusion. There was a positive link between respondent age and size and between risk exposure and the inclination to get insurance coverage. In the latter, there was a better link.

At the time of study on corporate demand for insurance, we have found a link between firm size and the take-up of coverage, and the findings reflect those of previous studies. It was discovered by Hamid et al. (2009) that large corporations are more vulnerable to the burden of potential bankruptcy costs, which means that they need to diminish the risk of incurring those expenditures. This is accomplished by getting insurance coverage for both life and general liabilities. Larger firms face risk-shifting incentives to obtain insurance, as Mayers & Smith (1982) reported. The investigation confirmed that the firm's capital stock sets the limits on the amount of

risk that stockholders can be exposed to. Insurance company risk-shifting enables the business to effectively allocate risk, shifting the risk from the business to the insurance company. As a result, the company is more likely to buy insurance if its employees, customers, and suppliers get a bigger percentage of the company's production. The possibility of general insurance or life insurance coverage purchasing is higher for those respondents that have been in operation longer. This is especially true with general insurance, which tends to be a product people are more likely to buy the longer they have been in business. Perhaps this is because it's seen as less of a priority than other critical areas like pursuing additional clients by using advertising and other means.

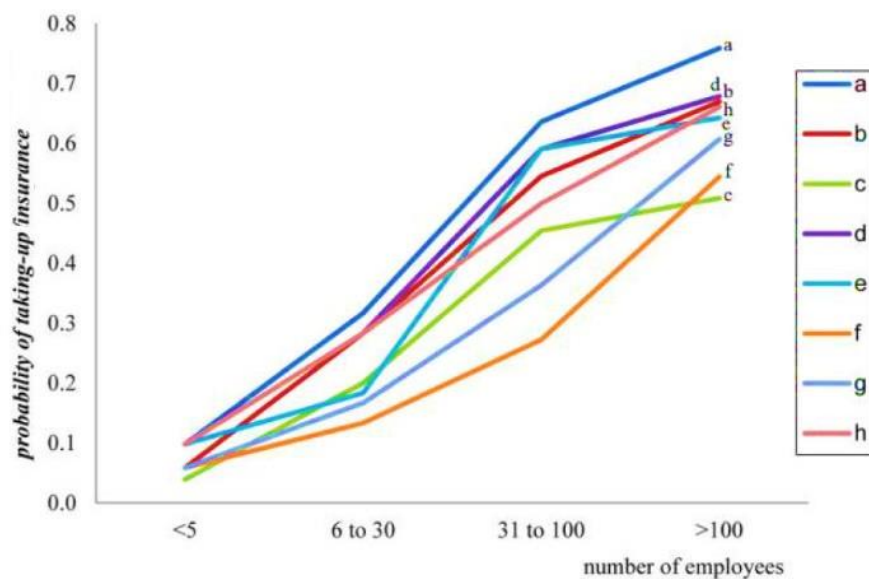


Figure 10. Results of respondent insurance preference: Probability plot by the number of employees.

Source: Authors Estimation

Risk Exposure	Legend
Damages incurred due to fire on businesses' property and premises.	[a]
Explosions, lightning, and others like burglary and theft losses that include broken/damaged commercial properties and facilities.	[b]
Damage caused by machine failure.	[c]
Ability to protect employees from being held legally liable for harm or illness while working.	[d]
Elimination of potential lawsuits if someone is hurt by or if someone's property is damaged by a third-party loss of company property and assets due to employee embezzlement.	[e]

Theft from the company because of dishonest employees.	
Loss of money or property during transit or on company premises.	[f]
Reimbursement for general medical treatments and hospital stays	[g]
Others	[h]
	[i]

Table 1: A breakdown of the risks and corresponding legend

Source: Authors Estimation

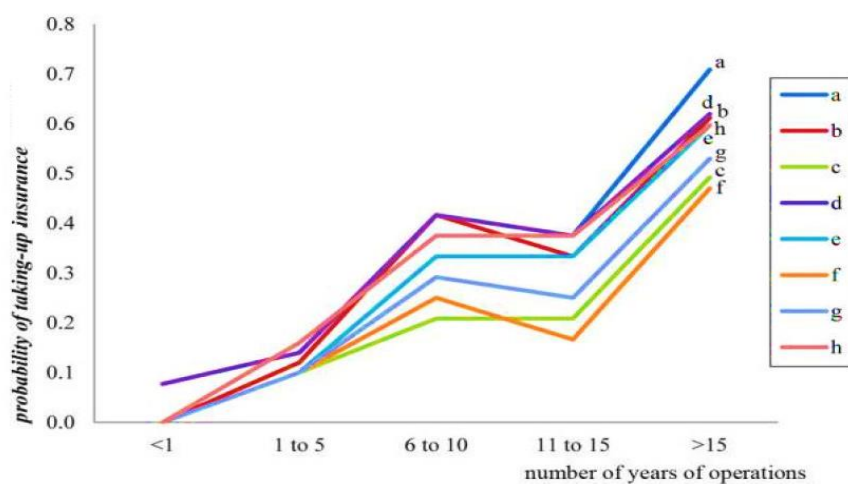


Figure 11. Probability plot of respondents' subscriptions to insurance based on the number of years of operations

Source: Authors Estimation

4.4 Considerations that come into play when looking for coverage

A significant aspect of the analysis of demand for insurance is how the participants in the survey evaluated their reasons for buying insurance. When considering getting an insurance policy, participants were asked how many of their preferences played a role in their decision. Nearly all respondents (97%) cited having someone defend their interests as important, as did 95% of the respondents, who were concerned about premiums. About 90% of the people valued customer service. According to this study, the frequency distribution of those who rated the various criteria as at least "rather important" was computed in relation to all respondents.

Legends	a	b	c	d	e	f	g	h	i
Size	0.4557	0.4093	0.3474	0.3860	0.4213	0.3410	0.3804	0.3916	0.1286
Age	0.5220	0.4901	0.3847	0.4725	0.4711	0.4632	0.4929	0.4763	0.2103

Table 2. Testing for a correlation between the take-up of insurance coverage among respondents and their age and size.

Source: Authors Estimation

The association between risk priority and insurance usage was examined in the follow-up test shown in Figure 12. Those who regarded each concern as significant are more likely to get insurance from their personal point of view, whereas those who deemed each aspect unimportant are more likely to take up insurance to cover others in their lives. The findings (which are on display in Table 3) make this quite clear.

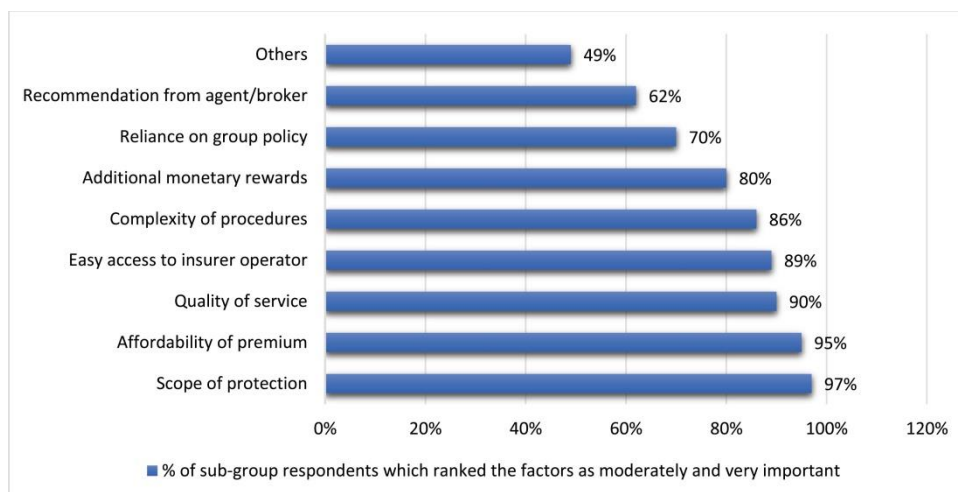


Figure 12. Survey respondents' consideration of considerations while making a decision about whether to buy insurance

Source: Authors Estimation

Risk Exposure	Take-up rate	
	Respondents Sample (%)	The entire Respondents (%)
i. Damages incurred due to fire damage to businesses' property and premises.	31	21
ii. Explosions, lightning, and other things like that. Burglary and theft losses that include broken/damaged commercial properties and facilities.	28	23
iii. Damage caused by machine failure.	41	27
iv. The ability to protect employees from being held legally liable for harm or illness while working.	35	25
v. The elimination of potential lawsuits if someone is hurt by or if someone's property is damaged by a third-party loss of company property and assets due to employee embezzlement.	27	19

vi.	Theft from the company because of dishonest employees.	33	18
vii.	Loss of money or property during transit or on company premises.	31	19
viii.	Reimbursement for general medical treatments and hospital stays	29	17
ix.	Others	32	14

Table 3. *The percentage of participants who are utilizing health insurance among those of interest (the test participants) as compared to the total sample.*

Source: Authors Estimation

The next sections highlight the results and conclusions on respondents who stated they had the insurance protection in place for their companies and organizations and those who chose not to buy any security services at all.

4.5 Survey Participants Who have Not Purchased Any Kind of Insurance Solution

Of the total corporations and organizations surveyed, approximately 58% of respondent stated that they do not currently have any type of insurance. This particular subset of survey takers was prompted to provide additional explanations for their lack of insurance coverage as part of the survey's predetermined answer options. There is a perception that a protection solution for institutions is more important than the weaknesses of the products or providers, according to these findings (i.e., the insurance companies). 40% of this group of respondents cited a negative perception of the importance of insurance coverage as a deterrent to signing up for any type of protection solution. Only 25% and 27% percent of the respondents cited pricing and complicated procedures as the reasons for their dissatisfaction. Figure 13 depicts the responses in greater detail.

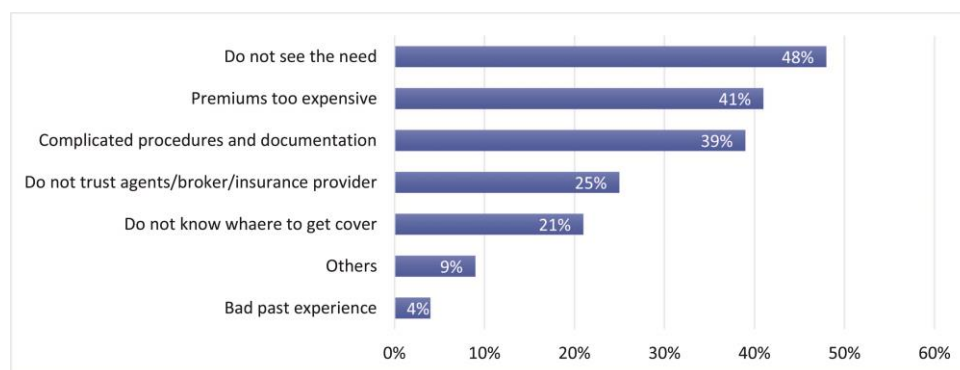


Figure 13. *Survey results about why people don't get insurance, broken down by respondent motivation.*

Source: Authors Estimation

The survey focuses on what is prompting customers to get their own coverage instead of getting insured and finding out what variables they are responding to.

The study, as illustrated in Figures 14 and 15, demonstrated how respondents in this survey chose to select insurance coverage largely because of a "positive reputation" of insurers (77% of respondents selected this factor), and Almost half of the participants supported better claim procedures (49 percent of respondents selected this factor). More than half of those who were polled chose "knowledge of insurance" (46 percent of respondents made this choice).

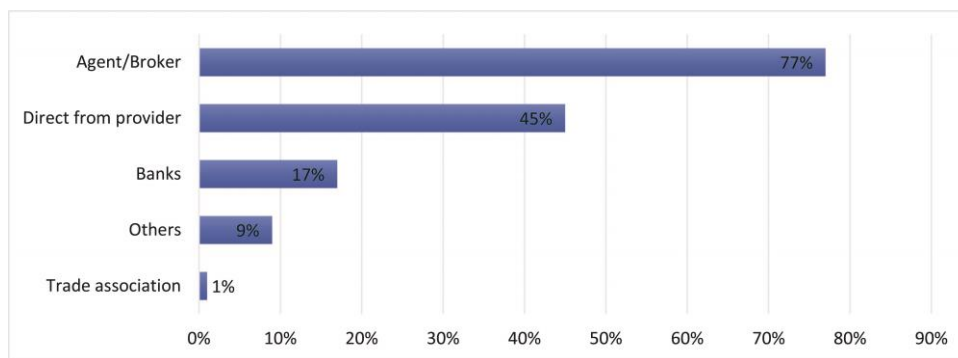


Figure 14. Channels methods utilized by survey participants to secure insurance
Source: Authors Estimation

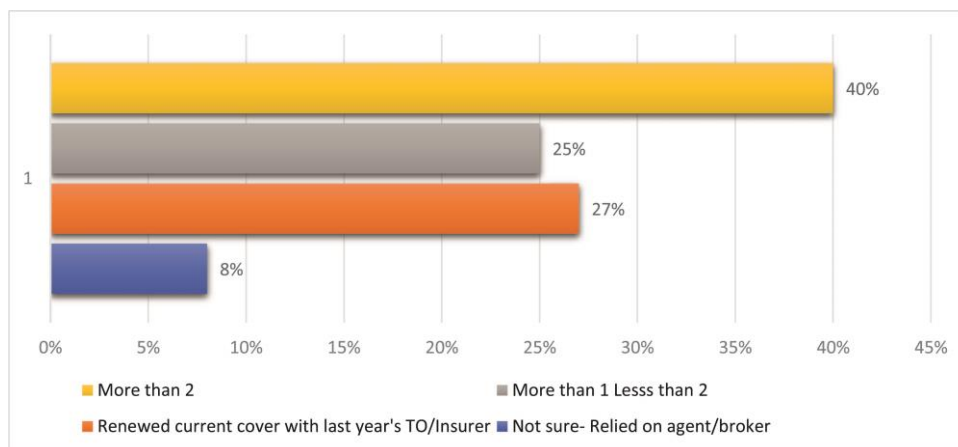


Figure 15. Total insurance carriers targeted for current coverage
Source: Authors Estimation

The results above imply that insurers will need to devote more resources to improving their market penetration in the corporate sector. Among the new strategies is increasing customers' understanding of insurance, which gives them a stake in the profits. Other ways to boost sales include improving services and rolling out more appealing products.

4.6 Respondents who opted for insurance coverage

An additional set of survey questions focused on the possible motivations for those survey participants who indicated that they had insurance coverage. Results are shown in Figure 16 and illustrate that "positive reputation of insurers," apart from "more effective claim procedures," was the most important factor for respondents to choose insurance (65% chose this factor as the most significant than 51%). One other significant factor was "familiarity with insurance" (chosen by 48% of those surveyed). More needs to be done to improve insurance's market presence among corporations, as shown by the aforementioned findings and research. Consumer awareness of insurance's value propositions and more customer-friendly products and services are among the measures taken.

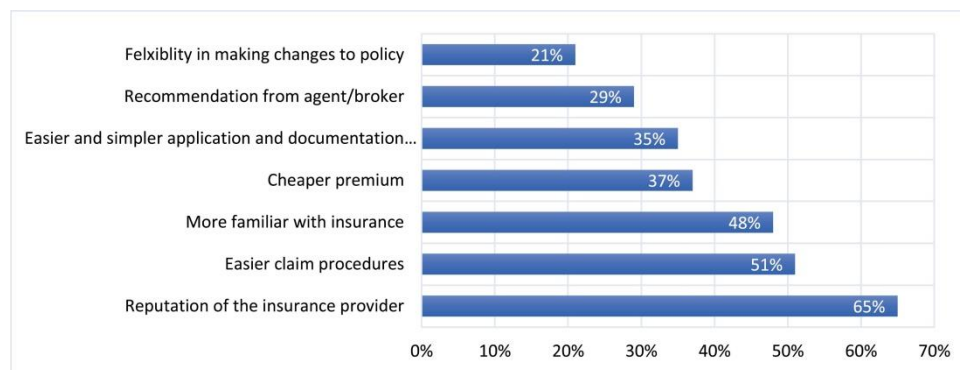


Figure 16: Ranking of factors for choosing insurance coverage

Source: Authors Estimation

According to the data presented above, more work needs to be done to improve insurance's market presence among corporations. This includes, for example, educating customers about the benefits of insurance and expanding the range of products and services available to them.

4.7 Respondents who chose not to acquire any of the protective solutions

More than a third of those who responded to the survey, which was sent to all firms and organizations, have stated that they have no insurance. For this particular group of people, the questionnaire prompted them to specify the reasons for not obtaining any coverage in a set of pre-defined answers. The results showed that having a protective solution is a more notable element than vulnerabilities in products or their suppliers (such as insurance operators and insurance firms). A distaste for insurance coverage was indicated by 36% of the group as the primary reason for not subscribing to any protection solution and was a dominant factor for the majority of the respondents. Other causes that were significantly less common were difficulties in pricing and lengthy procedures. For example, one in four consumers cited

difficulty in pricing items as a contributing factor, while almost one in five cited lengthy purchase procedures.

Given above the findings, it is important for insurance companies to boost their competitiveness and increase their customer base so they can better take advantage of this group.

4.8 Method of securing insurance coverage

When asked to respondents from where they obtained their insurance, participants were expected to reveal all of the places they went. To find out whether or not respondents had compared the terms of coverage from different insurance providers, we conducted a survey. 77% of respondents said they obtained their insurance through an agent or broker, indicating a strong reliance on intermediaries. It was also consistent with findings that 8% of respondents relied solely on the advice of intermediaries when purchasing insurance coverage for their company or organization.

In addition, 58% of those survey respondents answered that they purchased around for insurance before finally settling on a provider. In order to make this type of product comparison possible, intermediaries play a critical role. Figures 15 and 16 provide additional information on the results of the survey.

In order to examine the links between different channels and respondent awareness of Insurance availability, the data collected was parsed in order to assess the correspondence between channels and respondent awareness of insurance availability. This is used to determine if respondents use intermediaries to get coverage, regardless of whether or not they have previously heard of or used the company in question. While it might be surprising, it turns out that half of

The respondents were still using brokers to help get insurance, even though they were well aware of its availability. Only 32% of respondents received insurance coverage straight from the insurance companies or insurance brokers. This indicates that intermediaries are vitally important to the insurance industry as a whole. This makes sense because the experts know the special risks specific to each firm.

5.0 Conclusion

According to the findings of the study, the following conclusions can be drawn:

(1) Awareness of the accessibility of insurance

The interviewees were observed to be highly sensitive to insurance coverage availability. There has been greater awareness of insurance than that of the respondents' insurance. The majority of respondents have indicated that they are

ready to receive insurance policies to protect their businesses from risks. But only a handful had received the exposure already.

(2) Current subscription and protection need to insurance coverage

The three most pressing concerns, according to respondents, are the ones that would affect their organizations and operations, these are:

1. injuries to property,
2. monetary loss due to business disruption, and
3. payment default by customers

The survey showed a high insurance liability subscription rate with an emphasis on medical and workplace security. Insurance coverage usage has also been relatively high for fire-related coverage. In keeping with the greater understanding of risk among insurance respondents, there was more insurance reported compared to insurance coverage across all the risks identified. Individuals in our analysis tended to be of a good age and large in size and had high-risk exposure.

(3) Considerations involved with getting insurance coverage

The security coverage feature caught the interest of a number of respondents. The respondents' decisions on whether to seek insurance coverage determined how greatly insurance coverage impacted their level of risk and overall cost. Even though respondents have faith in the insurance security compliance feature, many of them still face risks because they don't have insurance coverage.

It looks like there are less competitive conditions for insurance products, which can be why insurance operators don't offer as many insurance products. That could be the reason why the insurance subset took over.

When asked to rank the types of insurance they prefer, respondents mentioned the insurers' superior reputation, more efficient claim procedures, and their own experience with insurance compared to insurance in the results.

Respondents mentioned that they believe insurance isn't necessary for a school and are worried about the steep fees and confusing policies for getting coverage.

(4) Prior insurance coverage experience

The research concluded that intermediaries had excellent insurance coverage penetration. Agents and brokers were the primary avenues for finding coverage among the respondents.

The survey results indicated SMEs' capacity as a target market. The report also indicated that insurance operators tended to have a limited understanding of their available options, but they are nonetheless interested in having more coverage.

Recommendations

To summarize, the survey results suggest the criticality of implementing change measures to ensure to have more efficient business practices at the end of insurance operators. There is also a need to enhance the market presence of insurance providers, which is an important part of the overall insurance market staying significant and competitive. Providers can reach corporate customers, in particular, small and medium-sized enterprises. Consciousness and recognition of insurance-protected economic and social advantages can be a key element in bringing more companies and organizations to insurance companies. Knowledge asymmetry could be reduced by better educational and informative interaction on insurance theory and application among potential insurance participants.

Investment and promotional plans, as well as the kinds and nature of their products and services, must be planned by insurance providers to suit the market segment in which they wish to engage. For insurance providers, it is particularly important not only to rely on customer demand as a key point of sales for their efforts to draw attention to their target market segment. Instead, competition in the market should take precedence over the reasonable price and easy customer access, based on features and scales of products and on the quality of services offered. Insurance providers can increase their market penetration and reach unserved markets with their full coverage, appealing product features, and effective advertising. The strengthening of the market presence and the strengthening of cooperation between agents and brokers are important. Last but not least, there is a need to strengthen the professionalism of the middlemen and insurance providers in serving customers and ensuring long-term interactions with them is also guaranteed. This research is constrained because it examines Bangladeshi insurance market and corporate perspective exclusively. The findings are significant since they include all major demographics in the insurance sector and those consumers in the target market (although they may not be conclusive). Future work into company and association attitudes towards general insurance will research by investigating similar focus groups in order to discover new trends and obtain new insights. The findings may be relevant for other nations offering insurance.

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JOB SATISFACTION AS A DETERMINANT OF EMPLOYEE PERFORMANCE: A STUDY ON THE EMPLOYEES OF PRIVATE COMPANIES OF BANGLADESH

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Abstract

The aim of this study was to examine the effect of job satisfaction on employee performance among the private companies of Bangladesh. For this purpose, a well-structured questionnaire of a five-point Likert-type scale was used to measure work satisfaction and employee performance. The data were collected through applying simple random sampling method from the respondents. After collecting the data from the field, the researchers went through a comprehensive statistical analysis to determine the study aims. However, the study's findings suggest that the following elements contribute to job satisfaction: remuneration, promotion, sense of accomplishment, growth opportunities, interpersonal relationships, work pressure, and self-actualization. It has also been shown that the elements of remuneration, promotion, sense of achievement, and growth opportunities have a considerable beneficial impact on employee performance in Bangladeshi private companies.

Keywords: Job Satisfaction; Effort; Performance; Bangladesh.

Introduction

In today's intensely competitive world, every organization's success is dependent on their human resources. Furthermore, human resources are amongst the company's most valuable assets which not only increases the company's efficiency and effectiveness but also a unique competitive advantage for the company. Consequently; the company's performance is strongly influenced by its employee's dedication and focus on achieving the company's long-term goals (Khan et al. 2012; Hidayah & Tobing, 2018). Since organizations achieve strategic goals through initiatives at the workplace and employees constitute a primary determinant of the future success through their experience, expertise, and abilities. (Vokic & Heanaus; Bruck, et al., 2002; Turkyilmaz et al., 2011). Apart from it, human resources are by and large the source of power that utilizes other resources and obtains the best return from them. Yet getting the best out of human resources requires massive organizational and management steps. When the human resources or employees are satisfied to deal with the movements and actions of managers, they make an effort for the sake of the company. But if they aren't in that condition They may result in

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significant losses for the organization. However, in order to achieve an organization's high degree of performance advancement, a highly pleased workforce is a must, since satisfied workers put in more job-performance effort, and then work harder and better (Navale, 2018). Organizations; therefore; try to ensure that they have a sufficient workforce to help meet the organization's long-term goals. However, job satisfaction is basically the mental state of an employee on particular job-related tasks and different aspects of their employment. A person with high job satisfaction feels good about his or her employment, whereas a dissatisfied employee feels bad about his or her job (Robins & Judge, 2013). Moreover, it has been observed that employees who perform high-quality work are generally satisfied with their jobs. Happy workers tend to have high retention rates; they are more organizationally involved and continue to achieve higher job efficiency (Arif & Chohan, 2012) and employee satisfaction is a critical factor in determining organizational success and should therefore be of major concern to companies, meaning that it is necessary to know how to retain employees through their workplace satisfaction which generates greater quality performance of employees (Ubaka & Altamimi, 2017). There's a significant relationship between employee performance and job satisfaction. A better understanding of its meaning needs further work.

Since competition is very high nowadays. Hence, each and every organization must be competitive with another organization. In this regard, the business expects greater performance to be obtained by gratifying employees in order to create competitive advantage, which requires the organization to retain labor. Therefore, the company needs to satisfy its employees in order to achieve their goals. However, the purpose of this study is to investigate at the influence of work satisfaction on employee performance in Bangladeshi private companies.

Job Satisfaction

Since the 1900s, several researches have focused on job satisfaction, and many definitions have been presented in the literature (Handsome, 2009: 39). Locke (1976) defines job satisfaction as a delightful or favorable psychological response arising from the evaluation of one's job or a job experience, which is one of the most commonly, used definitions of job satisfaction in organizational research. Job satisfaction, according to Simatwa (2011), is a function that is positively connected to the degree to which one's personal requirements are met at work. Robbins (2006) also claimed that Job satisfaction is a common response to work performance, and there are appropriate benefits and success. In principle, job satisfaction is connected to productivity. Employee happiness has been related to greater organizational performance and productivity. In addition, Affective and cognitive components make up job satisfaction. The employee's degree of positive and negative sentiments toward his or her job is the affective component, while the employee's thoughts and

beliefs about his or her job constitute the cognitive component (Schleicher, Watt, & Greguras, 2004).

Employee Performance

Performance is a stage in the process of completing a task (Simanjuntak, 2011). It indicates that quality of work is a level of achievement in which a person from the company completes a task. However, employee performance refers to a task's completion or an employee's ability to work efficiently (Thomas, 2014). It's a method for corporate and governmental organizations to attain their objectives by repeating operations. According to Rotundo and Sackett, 2002; job performance refers to the visible behaviors that individuals witness at work that are crucial in attaining organizational goals, and these behaviors must be relevant to the organization's goals. In the words of (Mathis, Fredrick and Kenneth, 2009); employees' performance is linked to amount of output, quality of output, timeliness of output, presence or attendance on the job, morale at work, efficiency of finished work, and effectiveness of completed work.

Relationship between Job Satisfaction and Employee Performance

Employees who are satisfied with their jobs can put out remarkable effort and improve their performance because of their strong morale and drive. Fisher (2003) studied managers, supervisors, and employees and found that the majority of them felt that feelings of pleasure are linked to performance. Job satisfaction is one of the drivers of job performance, and several studies have found a link between job satisfaction and job performance. It's also pretty apparent that happy employees bring in even more revenue (Ahmed et al. 2010). Cummings (1970) identified three main frames of view on this topic. Performance leads to contentment, which leads to performance, and incentives lead to both performance and satisfaction.

Review of Literature

A study by Sun et al. (2021) looked at the impact of organizational decentralization on job satisfaction and performance. They discovered that employee job satisfaction and performance are linked to the degree of decentralization. Employee happiness is influenced by decentralization because it increases employee engagement in decision-making and freedom in achieving personal objectives. Employee satisfaction is better in projects with a high degree of decentralization. Because of its impact on information and knowledge transmission, work efficiency, work excitement, and job satisfaction, the degree of decentralization in a project has an effect on job performance. According to Tran, et al. (2020) investigation, job autonomy, intrinsic drive, and job happiness are all important factors in the anticipated support and quality of work link, with the usability of social media

channels having a perplexing role. Another study by Ye, Liu, and Gu (2019) found that work satisfaction promotes the connection between conflicts and perceived job performance, whereas collectivism moderates the conflict-job standards of excellence.

In their study Platis, et al. (2014) tried to investigate the relationship between job satisfaction and job performance in healthcare services in Greece based on job satisfaction parameters versus self-employment satisfaction parameters. The study findings indicate that the most important metrics for job satisfaction are (based on their weights respectively): manager satisfaction, manager satisfaction, employee satisfaction, satisfaction with appreciation, good working hours and satisfactory work safety. Self-satisfaction with the amount of work, self-satisfaction with performance, self-satisfaction with services, self-satisfaction with job goals and self-satisfaction with quality improvements. In his study, Navale (2018) surveyed professionals, managers, and non-managers from 20 private sector businesses in India to see how work happiness affects employee performance. Higher-level employees continue to draw more happiness from intrinsic incentives, whereas lower-level employees tend to derive more satisfaction from extrinsic rewards, according to the findings of the study. The amount of job satisfaction is determined by factors such as the workers' age, gender, and experience.

Abuhashesh, et al. (2019) conducted a study to determine factors affecting employee satisfaction and performance in the tasks relevant to their work among the employees of Jordan Industrial Sector. The findings indicated that the Jordanian workers care most about their pay and position themselves more than any other factor. The study also suggests that plan to study the pay range for each job so they don't miss out on talented individuals or lose a good employee. In their study, Alromaihi, et al. (2017) attempted to investigate the elements influencing work satisfaction and the drivers of employee performance in Bahrain. The study's findings reveal the dual nature of the link that connects process cause and effect, namely, contentment leads to success and performance leads to satisfaction, depending on the number of mediating elements. Successful firms, according to this study, are those who use satisfaction and performance evaluation tests on a regular basis to monitor the level of these crucial factors and establish remedial actions. In their study; Anitha & Pragadeeswaran (2016) conducted a survey to determine the impact of job satisfaction factors on the performance of employees in India. They examined the positive attitude of a happy employee to work more and develop his knowledge/competence/ engagement to achieve organizational objectives. They find that satisfied employees work effectively and efficiently towards the organization's outcome / output / efficiency.

Fadlallh (2015) conducted a survey in the faculty of science and humanity studies at the University of Salman bin Abdul-Aziz-Aflaj branch in Saudi Arabia to

determine the effect of job satisfaction factors on employee performance (impressions, inclinations, expectations, and visualizations of employees of their jobs). He discovered that when working circumstances are better (such as compensation and progression, as well as working relationships), job happiness and performance in the collage are higher. Hossain (2014) measured job satisfaction of Bangladesh's bank employees in his study. He identified that organizational variables such as working conditions, pay, fairness and promotion have significantly affected the Bank's employee satisfaction and age and gender in Banks did not have a significant influence on employee satisfaction. In their study Javed, et al. (2014) attempted to explore the determinants of job satisfaction and its effect on employee performance, Bahawalpur, Pakistan. The study results show that his happiness would improve when workers have flexibility in business decisions, beneficial and clean climate. It also shows that the level of job satisfaction and motivation influences the productivity of employees. Sarker (2014) investigated how effective HRM practices in Bangladesh's private commercial banking industry may improve employee job satisfaction and organizational performance. He discovered that better salaries, incentives, and involving employees in decision-making increase employee productivity or performance.

According to Singh and Jain (2013), employee job satisfaction may be attained by providing a work environment that sustains employee job happiness as well as inspires employees to achieve outstanding performance at the workplace, attaining work-life balance. They demonstrated that a positive work atmosphere and favorable working circumstances may boost employee job satisfaction, and that employees will go above and beyond to improve their job performance. Aziri (2011) found that job satisfaction has a disproportionately high influence on employee motivation, and that motivation has an impact on productivity, and hence on business performance. Christen, et al. (2006) had done an extensive research to resolve discrepancies in the literature on the links between three major work relationship constructs: effort, job performance, and job satisfaction. They identified a negative, direct influence of effort and a positive, direct effect of work performance on job satisfaction using a model including variables that are essential for both agency theory and organizational psychology.

The above evidence strongly suggests that many studies have been conducted in the field of job satisfaction and employee performance, but there is a clear gap that, according to the best of our knowledge, none of them has demonstrated the impact of job satisfaction on the performance of employees among private companies of Bangladesh. So, this study is thus an attempt to expose the crucial issue identified above.

Research Questions

This study addresses the answer of the following research questions:

- What is the level of job satisfaction among the employees of private companies of Bangladesh? and
- Which of the factors of job satisfaction do influence mostly on the performance of employees?

Rationale of this Study

The rationale of the study was to identify variables that induce job satisfaction among the employees of private company's operating in Bangladesh and how these variables affect employee performance. Furthermore, it aimed to propose successful ways to enhance the level of satisfaction of workers in these organizations to gain their dedication.

Conceptual Framework of the Study

The factors that form the subject of this study have a strong link from theoretical and empirical research. Based on the explanation of not just the issues in the settings of having some theoretical studies and empiric research to follow them up. However, job satisfaction was shown as an independent variable, whereas employee performance was designated as a dependent variable in this study. The focus of this study is to determine which aspects of job satisfaction lead to an organization's employee's improved performance. As a result, the study's conceptual model is uncomplicated, as illustrated below.

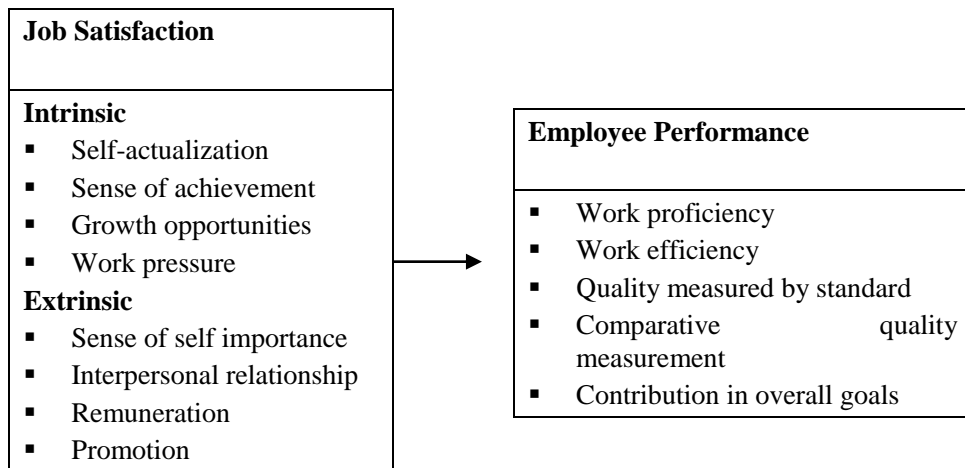


Figure: Conceptual framework of the study.

Objectives of the Study

As per literature it is clear that a satisfied employee can lead the organization through his/her performance. But in Bangladesh context, especially in private

companies' job satisfaction issue need to care properly to bring out the best from the employees. However, the current study was conducted to achieve the following objectives:

- to identify the level of job satisfaction of employee among the private companies of Bangladesh;
- to investigate the factors of job satisfaction affecting mostly in the performance of employees; and
- to examine the impact of job satisfaction on the performance of employees among the different private companies of Bangladesh.

Methodology of the Study

Origin of Data

In this study, both primary and secondary data were employed. Secondary data and information were gathered from existing literature in the subject, while primary data was gathered via a questionnaire survey.

Questionnaire Design

The questionnaire design is critical for achieving the study's goal since it directs the remainder of the research process. Questionnaires have a number of advantages over face-to-face surveys, including the ease with which they can be analyzed, the fact that they are known to most people, the ability to eliminate bias, and the fact that they are less invasive. A well-structured questionnaire with a five-point Likert-type scale was used to measure work satisfaction and employee performance, with 5 indicating strongly agree and 1 indicating strongly disagree. The questionnaires for job satisfaction were adopted from Tsui et al. (1992); Yu et al. 2007; and Sun et al. 2021. These three studies were combined to produce this questionnaire. In addition, the questionnaires for employee performance were adopted from Wang (2011); Hendri (2019) and Sun et al. (2021). Furthermore, two different sorts of questionnaires were designed. Job satisfaction questionnaires had been produced for employees to measure the satisfaction level of employees of the private companies; on the other hand, the questionnaire for employee performance had been designed for managers to get a performance scenario of the employees.

Study Area & Selecting Sample

This study was carried out in Bangladesh's two major cities, Dhaka and Mymensingh. In addition, the data were collected between March 12 and June 5, 2021. This study applied simple random sampling for collecting data. For this survey, 235 questionnaires were distributed to employees through hand-delivered mail across the company's various branches. But the survey only examined 190

responses for analysis due to lack of proper responses. Among them, 170 received from employees and 20 from managers.

Pilot Testing

Initially, the questionnaires were distributed to a small group of participants as part of a pilot study. A total of 15 copies were collected for the pilot testing. To make the present study more realistic, the authors made a few small adjustments to the pilot survey questionnaire and included some extra criteria.

Reliability of Data

Reliability is the degree of precision with which an instrument calculates a characteristic (Polit & Hungler, 1999). The initial durability of the items was validated using Cronbach's alpha. According to Cronbach's alpha, a minimum alpha of .60 is required for early stage testing (Nunnally, 1978). However, Cronbach's alpha for all of the factors is .784 which signifies satisfactory efficiency.

Table-1: Reliability Statistics

Cronbach's alpha	Items
.784	13

Data Analysis Tools

In three steps, the data was examined. Descriptive statistics and multiple regression were employed to articulate the data via SPSS 16.0.

Hypothesis

In order to find out the effect of job satisfaction on employee performance; the study tests the following hypothesis:

Ha: There is a significant relationship between the job satisfaction and employee performance among the different private companies of Bangladesh.

Results and Discussions

Respondents' Profile

The table below (table 2) shows the profile of the respondents:

Table 2: Respondents Profile

Particulars	Total	
	(N)	(%)
Gender		
Male	145	76.32

Female	45	23.68
Total	190	100
Age	(N)	(%)
20-30	70	36.85
30-40	44	23.16
40-50	40	21.05
50-60	36	18.94
Total	190	100
Education	(N)	(%)
Graduate Level	80	42.11
Postgraduate Level	110	57.89
Total	190	100
Position	(N)	(%)
Employee (other than managers)	170	89.47
Managers	20	10.53
Total	190	100
Working years	(N)	(%)
Less than 3 Years	38	20
3-6 Years	62	32.63
6-9 Years	48	25.26
9-above	42	22.11
Total	190	100

The above table 2 shows that most of the respondents are male (76.32%), majority of them are in the age of 20-30 (36.85%). All the respondents are educated and the none is less than the level of graduation and mostly (57.89%) have completed post-graduation. The table also reveals that most of the respondents are employees other than managers 89.47% and the majority (32.63%) of them have 3-6 years of experience of working.

Respondents' Opinion

Following table 3 shows the descriptive statistics for each of the factors of job satisfaction and employee performance based on the respondents' opinion:

Table 3: The respondents' opinion regarding the factors of job satisfaction and employee performance Table-3:

Particulars	Mean	Std. Deviation	Rank order
Remuneration (R)	4.27	0.611	1 st
Promotion (P)	4.23	0.547	2 nd
Sense of achievement (SOA)	4.11	0.506	3 rd
Growth opportunities (GO)	4.03	0.576	4 th
Interpersonal relationship (IR)	3.66	0.728	5 th
Employee Performance (EP)	3.41	0.532	6 th
Work Pressure (WP)	3.36	0.527	7 th
Self-actualization (SA)	3.14	0.699	8 th
Sense of self-importance (SSI)	2.38	0.674	9 th

Scale: 5= Strongly Agree, 1 = Strongly Disagree

The highest mean value for the variables Remuneration (R), Promotion (P), Sense of achievement (SOA), Growth opportunities (GO), Interpersonal Relationship (IR), Work pressure (WP), and Self-actualization (SA) are 4.27, 4.23, 4.11, 4.03, 3.66, 3.36, 3.14, respectively, as shown in the table above. It shows that, in the respondents' perspective, these elements are sufficiently available in their companies; yet, the respondents' opinion also indicates that the factor Sense of self-importance (SSI), i.e. 2.38, is not suitable in their organizations. Furthermore, the respondents' level of employee performance (EP) is 3.41 on a scale of 1 to 5.

Job Satisfaction Factor's Effect on Employees' Performance

This study used the multiple regression analysis to show whether the factors of job satisfaction have any influence on the employee performance among the private companies of Bangladesh. The output of the analysis and the interpretation are in the following table 4:

Table 4: Influence of job satisfaction factors on employee performance Table-4:

Factors (Variables)	B	Std. Error	T	P
(Constant)	4.083	.519	10.338	.000
Self-actualization (SA)	.330	.567	1.62	.066
Sense of achievement (SOA)	.440	.046	2.01	.003
Growth opportunities (GO)	.350	.054	1.98	.000

Work Pressure (WP)	-.455	.064	1.24	.056
Sense of self-importance (SSI)	.035	.083	1.01	.058
Interpersonal relationship (IR)	-.044	.071	1.12	.063
Remuneration (R)	-.036	.069	2.59	.001
Promotion (P)	.233	.053	2.06	.338
R = .813 and R ² = .66				
Dependent Variable: Employee Performance (EP)				

The above table (table 4) shows the value of the coefficients of the regression model. It shows that the T- value for the factors Remuneration (R), Promotion (P), Sense of achievement, and Growth Opportunities (GO) have 2.59, 2.06, 2.01, and 1.98 respectively. It signifies that these factors have a significant positive influence on the employee performance among the private companies of Bangladesh. The findings are also identical to the earlier studies of Syed (2020) Fadallah (2015), Al-Ajoumi (2015), Hutabarat (2015), Hanzaeel & Mirvaisi (2013), Hussin (2011) and Nimalathan & Brabete (2010) The factors Self-actualization (t=1.62), Work pressure (WP) (t=1.24), Interpersonal relationship (IR) (t=1.12) and Sense of self-importance (SSI) (t=1.01) have no significant influence on the employee performance because they have the t value less than the threshold (1.96). The study of Tran, et al. (2020) also pointed out that an employee with stress can't work better. Again, people would be better off, according to Ellis, (1979) if they ceased convincing themselves that they are deserving. Thus, the result demonstrates that both monetary and non-monetary aspects are equally crucial in ensuring the satisfaction of employees which leads to increase the performance of employees among the private companies in Bangladesh.

Conclusion

This study highlighted the relevance of workplace satisfaction elements in predicting greater performance levels among existing workers. According to this study, there is a favorable link between job satisfaction and employee performance. High levels of fair promotion, a fair pay structure, suitable job, and decent working conditions all contribute to high levels of employee performance. To put it another way, job satisfaction has a beneficial influence on employee performance. To do this, employee satisfaction must be controlled in a number of ways. This aids in the retention and development of "true believers" who can add value to the company. Since job satisfaction is regarded as one of the most important elements influencing the efficiency and effectiveness of businesses and it has a major impact on organizational measurements. Future HR managers will face a problem in expanding and fostering the number of "true believers." This entails a high level of creativity and invention. Employee performance is affected by job satisfaction. As a result, in

order to boost productivity, businesses must focus on these concepts. Employee motivation leads to job satisfaction, which in turn increases employee performance.

Implications

This study adds to our understanding of how inner and extrinsic job satisfaction elements interact to increase work performance in an autonomy-supportive setting. The effects are also obvious for managers. Employee performance is improved by a supportive workplace and employee satisfaction, according to the research. As a result, the results offer organizational and HRM experts and practitioners a better understanding of employee satisfaction and employee performance and they back up recommendations that positive and satisfied work environments are preferable. Furthermore, to boost employee performance via job satisfaction, organizations should provide good working conditions, good relationships among workers, employee performance feedback, unbiased promotion, good grievance procedures, disciplinary procedures, and equitable employment opportunities.

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THE ROLE OF RIDE-SHARING BUSINESS IN CREATING INFORMAL EMPLOYMENT OPPORTUNITIES IN BANGLADESH

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Abstract

Ride-sharing services have been viewed as heralding the next generation of mobility and recognized for their potential to provide an alternate and more flexible model of work. These services have also been used for creating employment, increasing income opportunities, and empowering the informal economy of the nation. This is a qualitative investigation of the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country. This study conducted 20 in-depth interviews of ride-sharing drivers and commuters in Dhaka city of Bangladesh. The collected data were analyzed thematically. The findings indicated that informal employment through secured app-based infrastructure, positive socio-cultural attitude, and inflation control, reduction of unemployment and income inequality, avoidance of economic corruption, women's employment, and economic development had been meaningfully enhanced by ride-sharing business in Bangladesh. The findings thus suggest government policy planners formulate favorable policies to boost ride-sharing businesses in Bangladesh.

Keywords: Ride-sharing Service, Informal Employment, Commuter, Dhaka dwellers, In-depth Interview, Qualitative Approach

1. Introduction

According to the report of the World Bank (2020), half of all workers now work in the informal economy in the world. This report also shows that the informal sector, on average, accounts for about one third of official Gross Domestic Product (GDP) and about 70% of total employment in Emerging Markets and Developing Economies (EMDE). Informal employment is usually marginal and sweatshop-like work that contributes to the development of the country's economy and society (Williams & Lansky, 2013). Informal employment is defined by the 17th International Conference on Labor Statisticians (ICLS) as the employment comprising the total number of informal jobs, whether carried out by informal sector enterprises, or households (Husmanns, 2004). Informal employment is also defined as any work that is not incorporated within formally regulated structures and involved in such employment that does not have to pay taxes on their incomes (Chen, 2012). A person can be informally employed besides formal employment (Hohberg & Lay, 2015).

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At present informal employment is seen as a significant source of livelihood for many people in Bangladesh like in many developing countries (Reza, 2017). With formal sector job availability that has not kept pace with the growth of the labor force, the formalization of employment being procedurally difficult, and the allure of benefits such as being free of taxation, a staggering 85% of total employment is estimated to be informal (Shahnaz, Rahman & Sadaf, 2018). Due to the huge pressure or facing a lack of employment opportunities in the formal sector in Bangladesh, the people have paid an immense tendency to generate employment for themselves as street vendors, carpenters, cross-border traders, sculptors, and brick-molders, etc. (Mujeri, 2020). Contrasting usual motorbikes, four-wheel taxis do not represent a formal type of public transportation but have constantly belonged to the informal transportation sector. Ride-sharing drivers are not defined as employees but are defined as self-employed or the part of the informal employed (von Vacano, 2017). These ride-sharing services have opened a huge opportunity for the employment of many people in Bangladesh and therefore helped to reduce unemployment (Karim, 2020).

Ride-sharing is a type of transportation, supplementing public transport, in which more than one passenger shares the utilization of an automobile such as a van or car, or motorbike to have a trip (Shaheen & Cohen, 2020). Ride-sharing is an arrangement in which a passenger travels in a private vehicle by its owner for a fee, especially as arranged using a website or app. Simply it can be mentioned that ride-sharing is a service that connects drivers with people looking for rides (Keiloch, 2019). This service is an app-based that provides commuters to connect with a network and this app calculates the fare of the ride according to real-time demand/supply data, traffic data, as well as distance (Tarek & Amit, 2019). The market size of this service is expected around the United States Dollar (USD) 61 billion to USD 218 billion from 2018 to 2025, and it is anticipated that the market size of ride-sharing will reach around USD 285 billion annually by 2030. Moreover, this business is projected to append approximately 100 million users worldwide by 2022 (Wang, 2019).

The ride-sharing services are playing an immense contribution to the issues of the economic, social, and environmental welfare by reducing traffic jams and making a minimum number of vehicles on the road (Hansen et al., 2010). This service attracts the people particularly the young generations, job seekers, investors, businesspersons, and government officials to use and invest in this industry. Therefore, the ride-sharing service creates a lion's share of acceptability in developed as well as developing countries (Chan & Shaheen, 2012). This service is the most friendly and convenient to commuters than other modes of transportation. From the viewpoint of the users, it is such a type of transportation mode which saves time and cost-effective than that traditional transportation. On the other hand, it creates the social benefits of

reducing traffic jams and saving huge working hours. From the business viewpoint, it generates major revenue by increasing market share by creating employment (Yu, Ma et al., 2017). Moreover, it rises and untapped opportunities to capture the potential market (Sakib & Mia, 2019). This service is providing benefits by offering new dimensions of services and a new avenue of earning profit (Belk, 2014). In addition to these, this service eliminates the problems of traditional transportation and provides potential relief from congestion and improved travel options (DeMaio, 2009).

Within a short time, many ride-sharing businesses launched with innovative technology to have the mobility of the passengers more expediently and flexible and generate informal employment opportunities for the people of Bangladesh especially the young generation of the country (Islam et al., 2019). Moreover, this service attracts new companies and provides people to use this frequently, which is further creating a new avenue to enter the market and making the competition intense. Ride-sharing businesses play an important role in improving the security conditions of both drivers and riders (Sakib & Mia, 2019). This app-based work providing services to communities lends itself well to employment generation through labor-intensive methods. Simply, ride-sharing is grabbing the opportunity of informal employment, as there is a lacking of sufficient job growth in the formal sector of the economy (Hossain, Siddique & Islam, 2015). The minimum income of people who are facing the decrease in the household purchasing power is justifying themselves in the entrance to informal employment like ride-sharing. To engage with such informal employment people are finding a way to fight against poverty and economic corruption (Eisenmeier, 2019). Like other informal employment, the ride-sharing industry is notable potential to better include and serve women to engage in employment. Moreover, ride-sharing businesses are an emerging model of informal employment that positively contributes to economic development and sustainability (Nowshin, 2020).

Studies by Islam et al. (2019) and Sakib & Mia (2019) have focused on the ride-sharing business to attain its present scenario, prospects, and problems. Moreover, Ahmed et al. (2020) stated that developing countries like Bangladesh address earnings from the ride-sharing services and their contribution to the economy of Bangladesh. The emergence of optimum application of ride-sharing business in the informal sector is largely ignored. Moreover, scholars have paid inadequate attention to linking the ride-sharing business and informal employment creation. To the best of my knowledge of the researcher, there is no good documentation in the existing literature regarding the reorganization of ride-sharing as an informal sector, even; though the idea is far away in the context of a developing country like Bangladesh. Therefore, this study intends to investigate the role of the ride-sharing business in creating informal employment opportunities in Bangladesh.

The paper expects that the findings of this study would add valuable insight into the literature on this area of study and fill this study's research gap on how ride-sharing businesses informally create employment opportunities in a developing country, especially in the context of Bangladesh.

2. Background and Overview

This study aims to address the roles of ride-sharing businesses in creating informal employment, especially in the context of Bangladesh. The notion of informal employment is considered related to the transition and developing countries as well as developed countries (Yu, 2012). Employees are thought to be informal when their employment relationship is in law or in practice that is not in accordance with national labor legislation, income taxation, social protection, or prerogative to definite employment payback or benefits (Goldman, 1999). This type of employment is concerned with limited short duration; jobs with hours of work or wages below a particular threshold. These are the employees which are not incorporated enterprises or by persons in households; employment where the employee's location of the job is outside the site of the employer's enterprise (Husmanns, 2001). This is the work without an employment contract. Moreover, labor regulations are not applied, not enforced, or not complied with for any other reason for informal employment (Chen 2012). Accordingly, examples of informal employment are street vendors, taxi drivers; home-based workers, etc. Informal employment, however, include types of job which has no comprehensible employer-employee relationship (Maligalig, Cuevas & Rosario, 2009). Therefore, this study explains how the ride-sharing business informally creates employment in Bangladesh.

The informal sector in Bangladesh is approximately projected to contribute about 64% of total GDP (Shahriar, Arafat & Alam, 2019). According to BBS (2019), the total population in Bangladesh was approximately 168.31 million from whom about 106.1 million people were working-aged. Out of this working population, only 13.8% were employed formal employment and the rest (86.2%) were in informal employment (Rahman, Bhattacharya & Al-Hasan, 2019). According to the quarterly Labor Force Survey (LFS), in 2019, 2.6 million people were estimated as unemployed in Bangladesh at the rate of 4.2% of the labor force. In the informal sector, the highest rate is in the agricultural sector and then the industrial sector followed by the services sector. More than 2 crore young people are employed in Bangladesh, having 33.5% of the workforce. Overall, 79.6% of the unemployed are youths (ur Rahman & Hossen, 2019). In Bangladesh, about 90% of the youth people are engaged in employment in the informal sector as they face the daunting task of creating formal jobs (Mussida & Sciulli, 2020). It can be argued that the creativity and resourcefulness that characterizes informal employment can even prompt it to become an engine of growth in Bangladesh. In Bangladesh, technology is creating

opportunities in the informal sector economy. New industries produce informal employment such as shared ride drivers, homestay hosts, and e-commerce logistics (Karim, 2020).

The international ride-sharing app, Uber initiated its ride-sharing operation in Bangladesh on 22nd November 2016 (Ahmed et al., 2020). 10 companies such as Pickme Limited, Pathao, OBHAI, Chaldal, Computer Systems, Akash Technology, Ezzyr Technologies Limited, Segesta Limited, Shohoz Limited, and Uber Bangladesh Limited obtained the license in Bangladesh in July 2019. In Bangladesh, the top three ride-sharing services are Uber, Shohoz, and Pathao. It has already been an extensive embracing of app-based ride-sharing by Dhaka dwellers. In Bangladesh, ride-sharing services have obtained popularity for their supportive functionality (Cynthia et al., 2019) and it has been a safer transportation mode than any other public transport in Bangladesh (Dills & Mulholland, 2018). The increased use of social media, especially by young people gradually reduces the level of distrust towards strangers. This result also complemented the sharp use of ride-sharing services. The use of digital payments, including digital payment gateways (e.g. debit/credit card) and mobile financial services (e.g. bKash, Rocket, Nagad) for ride-sharing services can additionally enhance its uses (Ahmed et al., 2020).

The ride-sharing sector is providing opportunities for employment by saving time for commuters of the most densely populated city in the world. The trend is showing that the drivers of the ride-sharing services belong the most of the young people, who are financially comforted to work in the potential industry (Li, Hong & Zhang, 2016). Many students take it as part-time work to assist pay for their studies and other usual expenditure. It is found that not many years ago association with app-based ride-sharing works brought incredible changes in the earnings of the people who take this sector as informal (Islam et al., 2019). An anticipated 40,000 drivers/riders under the ride-sharing network implies the job creation potential of this sector. From a car/bike owner/driver's perspective, Uber-Pathao has brought about tangible positive benefits (Jahan, 2019). The ride-sharing business ensures significant security and safety of the transportation communities which helps to increase the demand for this sector boosting employment opportunities (Witt, Suzor & Wikström, 2015). The ride-sharing business provides direct jobs to the unemployed people, students, and even who have formal jobs and tends huge employment opportunities in the country. Furthermore, this business removes income inequalities and generates an additional income leading to the alleviation of poverty (Abedin et al., 2020). Moreover, the ride-sharing business also plays an important role in improving the socio-cultural status, values, and lifestyle of the community (Islam et al., 2019). However, the communities consider the development of the ride-sharing service sector as a blessing for the creation of employment informally and are very intense to be involved in this sector. Thus, the

ride-sharing business creates informal employment in Bangladesh by empowering job seekers and passengers economically, socially, and culturally (Hossain, Siddique & Islam, 2015).

2.1 The History of Ride Sharing in Bangladesh

With the launch of Pathao, the most popular local ride-sharing firm, in 2016, and the arrival of Uber in the Bangladesh market in late 2016, Bangladesh saw a significant increase in the ride-sharing area. Aside from Pathao and Uber, a slew of other ride-sharing companies are springing up to meet the growing public demand. Approximately 500,000 commuters used apps to request ride-hailing on vehicles and bikes as of November 2017, commonly known as e-hailing. In January, this number was merely 10,000. With Uber, Pathao, and Amar Ride beginning services in Dhaka in 2016, ride-hailing tech companies swept the Bangladeshi market. Such initiatives have sparked a trend of ordering a taxi or motorcycle using smartphone apps for either solo or shared travel. Surprisingly, Pathao started out as an E-delivery service in 2015. The company was successful in using its fleet of motorcycles, but it wasn't until October 2016, when Uber started in Dhaka in November 2016, that Pathao decided to promote motorcycle ride-sharing services. Despite its popularity, Pathao is not Bangladesh's first motorcycle-based ride-sharing company.

Share-A-Motorcycle, or SAM, is the recipient of this honor, which was established on May 7, 2016. Pathao's superior business model, on the other hand, appears to have made them more successful and popular. Uber appears to have taken notice of Pathao's success because, in the fourth quarter of 2017, Uber created UberMoto, which is modeled after Pathao's motorbike taxi service. In essence, Uber has set the tone for firms like Chalo, Muv, Dhaka Moto, Bahun, Amar Bike, Amar Ride, Taxiwalla, Dako, Ezzyr, Goti, and Hellow Ride, all of which have helped to develop a thriving e-hailing market in Bangladesh.

Although the notion of ridesharing is not new, its expansion in emerging economies such as Bangladesh has acquired a lot of traction recently (Kamau et al., 2016). Furthermore, Bangladesh's definition of ridesharing differs greatly from that of many other industrialized countries, such as the United States and the United Kingdom. While in developed countries, it refers to the concept of sharing a ride with two or more passengers to reach the same destination, in Bangladesh, the concept has taken on a new dimension in the form of searching for a ride using smartphone apps and an internet connection by selecting the destinations. Furthermore, Dhaka's infrastructure, road networks, and communication systems fall short of that of comparable developed-country cities (Chowdhury et al., 2016).

3. Methodology

3.1 Research Design

This paper attempts to present a qualitative investigation of the contribution made by the ride-sharing businesses in Bangladesh emphasizing its merits-demerits from the viewpoints of the drivers and the riders. The qualitative method has been used to have replies using questions relating to various aspects of ride sharing business from the participant's point of view (Goedeke et al., 2015). In qualitative research there is hardly any answer to a question like how many respondents are asked to gather information on having a panoptic picture of the ride sharing businesses in Bangladesh based on thematic analyses (Robinson (2014; Fugard & Potts, 2015). Face-to-face interviews were conducted for having a better understanding of the kind of businesses based on the opinions, experiences of participants using the interview schedule (appendix-B). The researcher conducted interviews until reached data saturation was reached (Guest, Bunce & Johnson, 2006). The sample respondents of this study are selected purposefully and based on the convenience of the researcher. Interviews took place in Bengali and were then recorded, transcribed, and translated to English.

3.2 Study Sites

In Dhaka and Chattogram city the local and foreign ride-sharing companies namely Uber, Pathao, Shohoz Rides, Obhai, and PickMe are providing services (Hayder, 2020). This study is conducted in Dhaka City from late 2020 to early 2021. In Bangladesh, Dhaka city is the commercial and financial hub. Moreover, the main office of national and international companies is situated in this city. For this reason, Dhaka city is the dominating job market. Why are job seekers eager to move to Dhaka for getting their employment (Karim, 2020)? On the other hand, this city is one of the most densely populated and congested cities in the world where every day about 3.2 million works hours and every year about 660 million working hours are wasted (Hasan et al., 2019). In this city, many modes of public transportation are seen namely auto-rickshaws, taxis, CNGs, and public buses. These types of transportation exploited the elasticity of demand for transportation by refusing the passengers favors and choices. These transportations most of the time exploited the passengers by refusing to charge by the meters installed in the vehicles, hiking up fares, and refusing to go to places that do not generate a higher fare (Mahmud, Gope & Chowdhury, 2012). These situations demand mass transportation, which considers the efficiency, reliability, and safety of the commuters. To eliminate such exploitation the app-based ride-sharing services introduced in Dhaka city in November 2016 have brought blessings to the commuters with ease of finding transport, doorstep pick-up, and app-based fare estimation (Tusher, Hasnat & Rahman, 2020). For these commuters favored blessings tend to the rapid increase of

ride-sharing businesses in the traffic-congested Dhaka city and day by day gaining popularity. Moreover, data in January 2020 shows that commuters took 7.5 million rides per month in the city, which becomes one of the sources of employment for the people in the country (Ahmed et al., 2020). Considering these issues the researcher selected Dhaka city as the study site for this budding industry.

3.3 Selecting Samples

The selection of subjects is purposeful in qualitative research, participants are chosen who can help to inform the research questions and increase understanding of the phenomenon under study. In the study design process, therefore, one of the most critical tasks is to identify suitable participants. Selection decisions are focused on empirical concerns, theoretical insights, and information that informs the study. In this study, extensive literature reviewing the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country has helped the researcher to identify the participants in the context of the subject matter of this study. As a result, given the qualitative analysis and scope of this study, the researcher interviewed 12 Uber, Pathao, OBHAI, and OBON drivers and 8 riders of these ride-sharing services for approximately 30 minutes each.

3.4 Sampling Technique

Convenience sampling was employed in this research. In both qualitative and quantitative research, the process of convenience sampling is valid. Personal contacts-based convenience sampling was applied. In qualitative research, there are no computations or power analyses that can be performed to determine the minimum number and types of sampling units needed a priori. Sample size adequacy in qualitative study is relative. For certain kinds of homogeneous or essential case sampling, a sample size of 10 might be considered sufficient, too small to achieve full variation of a complex phenomenon or to establish theory, or too large for certain kinds of narrative studies. According to Van Kaam (1959) the sample size 10 to 50 is sufficient to discern its necessary and constituents in a qualitative research. In the existing research, 20 respondents were selected to be interviewed based on personal connections. The researcher interviewed 12 Uber, Pathao, OBHAI, and OBON drivers and 8 riders of these ride-sharing services for approximately 30 minutes each. As a result, given the qualitative analysis and scope of this study, a sample size of 20 was deemed sufficient.

3.5 Interview Questionnaire Development

A semi-structured interview methodology was used in the qualitative part of this research to share views and viewpoints between the investigator and the participants.

The semi-structured questionnaire was designed and developed by considering literature review. For the drivers, one primary question and twelve probing questions and for the riders a separate questionnaire was used consisting one primary question and ten probing questions to perform the field study (Appendix-B). The production of interview questions was considered very critical because the qualitative approach was used to provide real-world perspectives. In the present research the field study has conducted with the in-depth interview with 20 interviews relating to the subject of the study.

3.6 Data Collection Procedure

A total 20 in-depth interviews were carried out at the study site from September 2020 to January 2021. These interviews were conducted to understand the respondents' views on the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country. Before taking interviews from the respondents, permission was taken from the respective interviewees. However, at the month of September 2020, the researcher visited the study site and tried to develop relationship with the drivers and riders of the ride-sharing service. The researcher was able to conduct 5 interviews as a pretest on initial questionnaire which are designed on the basis of research questions and objectives of this study. After returning from the field, few modifications were done by following the comments and opinions of the respondents. After modifying questionnaire, 20 interviews had been conducted until the information saturation stage was reached. The researcher has not used data from the incomplete interview in this study. During the interview, the participants were requested to allow recording their speech by using the mobile recorder. Most of the participants allowed but very few did not. In case of the respondents who did not allow to use the recorder, key points were noted down. For data analysis, the verbatim transcriptions of all recorded interviews were completed to ensure accurate data from the discussions of participants, body language, and others.

3.7 Data Analysis

To analyze the in-depth interviews gathered from the field study using thematic technique. This technique helps in transcribing the collected data, coding, and developing the central theme of the research (Shneidman, 2013). To analyze the data gathered from the field study, first, the interviews were transcribed by using the verbatim mobile records and the notes written down during the interviews. Then, to examine and evaluate the collected data, the content analysis approach was used (Lune & Berg, 2017) to investigate the contribution of ride-sharing in creating employment opportunities in Bangladesh. The data gathered from interviews was consolidated and subjected to open coding and inductive analysis, as recommended

by Merriam (Merriam, 2002). Moreover, secondary data were collected from the published documents and websites for this research.

3.8 Demographic Description

The following table 3.1 shows the demographic characteristics of the respondents.

Demographic Variables	Frequency	Percentage (%)
Gender		
Male	18	90%
Female	2	10%
Education		
No Education	0	0
Primary	0	0
Secondary	5	25%
Higher- Secondary	7	35%
Graduate	8	40%
Age Group		
18-25 Years	4	20%
25-32 Years	13	65%
32- Above Years	3	15%
Occupation		
Employed	2	10%
Unemployed	11	55%
Business	3	15%
Students	4	20%
Marital Status		
Married	11	55%
Unmarried	9	45%
Divorced	0	0
No. of Dependence		
No dependence	3	15%
1-3 dependence	6	30%
3-6 dependence	11	55%
6-9 dependence	0	0

Family Type (Staying)		
Single	17	85%
Family	3	15%
Respondent Types		
Drivers	12	60%
Riders	8	40%

Source: Author

Above table 3.1 represents the demographic characteristics of the respondents of this study. Out of 20 respondents, 18 were males and 2 were females. As far as education is concerned 40% of the respondents have a graduation degree, whereas 35% of the total respondents contain a secondary school certificate and only 25% of them have a secondary school certificate. Out of 20 respondents, 65% have an age limit between 25 to 32 years. 4 (20%) of them are between the age limit of 18 to 25 years, and only 15% of the interviewed respondents are aged more than 32 years old. The majority percent (55%) of the interviewed respondents are unemployed. 20% of them are students and 10% and 15% of the respondents are employed and businessmen. As far as marital status is concerned 55% of the respondents are married and the rest of them are unmarried. As far as dependence is concerned, 55% of the respondents have 3 to 6 dependences. 6 of them have 1 to 3 dependence, and the rest 15% of the respondents do not have any dependence to take care of. 85% of the respondents remain single in Dhaka city and the rest 15% of them live with their families. Finally, 60% of the respondents are drivers, and 40% of their riders in this study.

4. Results and Findings

The in-depth interviews with both the drivers and riders provided insights into several areas that exist for support in creating informal employment in Bangladesh. The main issues to investigate were included perceptions of social exclusion, personal traits, social security, considerable efficiency, reliability, safety, and comfort as the areas where a nexus between ride-sharing and informal employment opportunity creation are formed. The outcome of this study will have an important policy impact on employment opportunity creation and have a contribution to the literature on the studied field.

App-based Secured Infrastructure

The infrastructure with proper information has a huge potential for improving the security conditions and thereby the working conditions for informal sector workers because such infrastructure ensures the safety of the stakeholders (Chambers &

Evans, 2020). The Ride-sharing companies have developed and promoted apps-based infrastructure programs where both the drivers and riders need to register to provide their personal information along with their present and permanent addresses. Such information gives both parties security and safety during of getting services. Moreover, apps have the option to rate the driver and passengers. This rating affects both the rider and driver profiles and, in some cases, affects their ride-sharing options in the future (Ghosh, 2018). Experience has demonstrated that app-based infrastructure works providing services to communities lend themselves well to employment generation through labor-intensive methods. Therefore, the ride-sharing business brings a comprehensive app-based infrastructural development that ensures the safety and security of both drivers and rides which helps to generate employment. This viewpoint of the participants is outlined briefly below:

“Since this is an app-based service and all personal information is recorded on the server so there is no chance to create any unexpected incidents from both sides. Moreover, in this app-based programming service, there is the option of rating both parties, which affects our profiles and affects our ride-sharing opportunities in the future. When the riders are satisfied and rated positively then they encouraged others to avail of this service. That is why; more demand is increased to take more services which create self or informal employment opportunities.”

PO6, Male, Age 29, Unmarried, dependence: 3, Stay: Single, Educational Status: Graduate
 # UR2, Male, Age 31, Married, dependence: 3, Single, Educational Status: HSC
 # RD4, Male, Age 40, Married, dependence: 4, Single, Educational Status: Graduate

Improvement of Social Character

Social character gives raises a position of individual aspiration and social essentiality by assuring that persons want or need to do what they encompass to do, and therefore obtain fulfillment from performing according to social and cultural prospects or expectations (Foster, 2017). Maddah & Sobhani (2014) stated the role of social character issues as the most imperative force distressing the informal economy. They ingrained the direct relation of unemployment and other issues such as poverty, illiteracy, economic corruption, inflation, and low wages with the size of the informal economy of a country. The informal sector is defined by micro-enterprises that necessitate little investments, and enjoy minimal state rules, regulation, and freedom. The organization of one's personal enterprise provides a feasible chance for reducing and overcoming poverty and offering work to others (Sethuraman, 1976). The lack of sufficient job growth in the formal sector particularly in Bangladesh as well as the lack of skills of the large labor force of the country has resulted in the growth of informal employment in the country like ride-

sharing businesses. The participants gave their opinions regarding improvement of social character as below:

“Our country’s per capita national income and education rate is lower than developed countries and inflation and poverty rates are high and labor wages are low. Due to these social characteristics, it is not possible to meet our expected demand. All these social characteristics are driving us towards informal activities. Moreover, lack of skills, requirements of small investments, enjoying the freedom, and minimal State regulation tend us to engage in informal employment like ride-sharing. Notably, incorporation into social characters of our country has positive behavioral changes among the people of the ride-sharing services.”

OB1, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate

RD2, Male, Age 25, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

RD2, Female, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate

Inflation Control

The Price level rising of consumer goods refers to inflation and brings the difference between expenses and incomes of households of the consumers. Simply, it is an indication of a reduction in people and a firm’s purchasing power. Such a situation tends to enter informal employment in order to recompense the extra expenses. To subsist a living and manage the extra expenditure due to inflation people lead to increase their income by engaging in informal employment. In this regard, Maddah & Sobhani (2014) pointed out that inflation is the most important reason for the informal employment emersion. Barro (1996) describes that inflation is a manifestation of financial steadiness circumstances, which by its raise small companies ruined and by exiting the formal market, they will be inclined to carry out in the informal market. Therefore, there is a nexus between ride-sharing businesses and informal employment opportunities created. A number of participants who are engaged in ride-sharing businesses in the Dhaka city stated as below:

“We are engaged with the ride-sharing services as our secondary employment besides our primary employment because of meeting up increased expenses of our households. The hike of the consumer goods prices decreased purchasing power of us and we are unable to meet up our daily family expenses which tend us to enter into the informal employment like ride-sharing.”

UR1, Male, Age 29, Married, dependence: 3, Stay: Single, Educational Status: Graduate

PO1, Male, Age 26, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

RD1, Male, Age 18, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

Reduction of Unemployment

In developing countries, higher rates of unemployment can carry out as a growing concern in the informal sector. Unemployment and lack of job are identical to being deficient in income and necessary sources to entail a living. In this circumstance, people have elevated inspiration to engage in informal activities (Rahman et al., 2019). Frey and Weck-Hanneman (1984) mentioned that unemployment is among the most important determining factor of the informal economy. Dell'Anno and Solomonl (2008) used the USA economy's data, showed a direct and significant relationship between unemployment and the informal economy, and recognized unemployment as a major factor in the emersion of the USA's informal economy. In developing countries like Bangladesh, ride-sharing services as informal employment are a source of work creation, and engaging in this sector is thought of as a means to fight poverty. According to the Bangladesh Bureau of Statistics (BBS), in Bangladesh, the unemployment rate was at approximately 4.38% in 2015, which has decreased, and now the rate is at around 4.2% in 2020. In 2018, Pathao raised USD 10 million and Shohoz raised USD 15 million from investors. At preset USD 300 million markets, business is estimated in Bangladesh. It is expected from 2018 to 2025 the market value of the ride-sharing business in Bangladesh will grow from around USD61 billion to USD 218 billion and the figure will be USD 285 by 2030 which will generate huge employment for the people of the country (Ahmed et al., 2020). Regarding the informal employment creation, the participants' standpoints are followed:

“We observe that ride-sharing businesses are creating a huge number of informal employment opportunities for the unemployed people of Bangladesh. Many young people who are students informally involved with this sector leads to earning extra income that helps them bear their living and educational expenses. Moreover, the people who have completed their education and seeking jobs are also involved with these ride-sharing activities. During the pandemic, COVID 19 situation many organizations fired their employees and created a huge unemployment situation. Such unemployed people are engaging with this business to lead their lives. About 371,093 motorcycles were registered in Dhaka from 2017, when the ride-sharing services Uber, Pathao, and Shohoz were introduced, till February 2020. The highest number of 104,064 motorcycles was registered in 2018. Such a picture indicates the role of the ride-sharing business in reducing the rate of unemployment in Bangladesh. Consequently, the unemployed peoples are empowered economically owing to be an integral part of the informal ride-sharing sector.”

UR3, Male, Age 39, Married, dependence: 5, Stay: Single, Educational Status: HSC

OB2, Male, Age 32, Married, dependence: 4, Stay: Single, Educational Status: SSC

PO3, Male, Age 37, Married, dependence: 4, Stay: Single, Educational Status: HSC

Avoidance of Economic Corruption

From the economic view, corruption means the use of unethical power for personal profit. Researchers investigated the relationship between corruption and informal employment (Anand, Ashforth & Joshi, 2004). Maddah & Sobhani (2014) showed the expansion of the informal sector due to the existence of corruption. He also showed that weakened laws increase the volume of informal employment. They also investigated the choice between the formal and informal sectors according to the impact of corruption. He also argued that the introduced economic corruption and bribery as key factors in leaning toward informal employment. Thus, economic corruption activities also allow job seekers to engage themselves in informal employment like ride-sharing. The summary of the opinions of several participants is mentioned below:

“We think that there are a lot of unethical ways to get a job in the formal sector. We often learn through various media that a candidate has to pay a large bribe to get a job in some formal institutions of the country. We think it is better not to get involved in such kind of economic corruption but to get involved in informal activities. Such type of mindset of the job seekers tends to engage themselves to ride-sharing businesses.”

PO4, Male, Age 32, Married, dependence: 3, Stay: Single, Educational Status: SSC

RD3, Female, Age 21, Unmarried, dependence: 0, Stay: Single, Educational Status: HSC

Reduction of Income Inequality

It is established that income inequality affects societies and economies, with a rising indication that unwarranted income inequality creates dissatisfaction among the people who have comparatively lower-income (McCall, 2013). There are also concerns that income inequality may increase individual deprivation and reduce social mobility. Moreover, income inequality can be an indication of deficiency in income mobility and an opportunity-an indication of a relentless nuisance for fastidious segments of the society (Jenkins, 2011). Besides, people with the same qualifications work in different organizations and face income inequality, then comparatively low-income people will try to increase their income by quitting their jobs or engaging in other informal employment besides their existing jobs (Balkin, 1989). Widening income inequality has significant implications for the growth of

informal employment (Wang, Cooke & Lin, 2016). Therefore, there is a nexus between the standard of living in accordance with income and the growth of informal employment. Ride-sharing businesses have created enormous opportunities for the employment of the people who expect extra income for meeting up their hiked wants. As a result, the intention of income equality tends people are trying to increase income through informal sectors like ride-sharing. A number of participants who are engaged in ride-sharing activities stated as below:

“Many of us have experienced income inequality by having the same qualifications and spending the same working hours. As a result, living with same class people in the society has created inequality in the standard of living. Therefore, we have taken the opportunity of informal employment like ride-sharing to increase the standard of living through increased income. Thus, the ride-sharing business helps to eliminate income inequality of the same qualified and employed persons in the country.”

PO5, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: HSC

RD5, Male, Age 18, Unmarried, dependence: 0, Stay: Family, Educational Status: HSC

RD6, Male, Age 32, Married, dependence: 3, Stay: Single, Educational Status: Graduates

Women Employment

Informal work is not a term for gender biases (Carmichael & Charles, 2003). It covers the work of both genders. Hoyman (1987) suggests that women's participation is expected to surpass that of men. Women face many challenges in participation in the formal work and such challenges move forward women workers to the informal work. That is why women participate in the informal work for meeting up their necessities rather than choice. In many countries, the number of women is half of the working population who works in the informal sector and contributes to poverty reduction. Evidence shows that women are certainly more exposed to informal employment. Statistics show that more than 90% of women in sub-Saharan African countries, 89% of women in countries from Southern Asia, and almost 75% of women in Latin American countries are working in the informal sector (Bonnet, Vanek & Chen, 2019). Moreover, the new technologies and business models open alternative pathways for the women workforce to engage in informal employment (Chen, 2012). Informal employment particularly in the ride-sharing industry is a prominent part of this revolution and has the prospects to include women engaging in employment. Thus, ride-sharing helps expand employment opportunities for the women of Bangladesh. Critical informants of the study are outlined below:

“Lily Ride and OBON as women ride-sharing services that are currently gaining popularity in Bangladesh. These services come up with something that can ensure convenience for women. According to the information from the media, 90% of women using public transport in Bangladesh say they have encountered some form of harassment. In order to combat such widespread incidents, ‘Lily Ride’ and ‘OBON’ were created to make the commute for women in the country both safe and comfortable. Female-only riding apps are seen as a step toward advancing women’s freedom in Bangladesh. The ride-sharing service now opens up a new avenue for extra income for us. Ride-sharing apps boost women’s income and ease our entry into the transportation industry. It’s not just a vehicle to move around-it’s a symbol of women’s employment advancement in Bangladesh.”

PO6, Male, Age 29, Unmarried, dependence: 3, Stay: Single, Educational Status: Graduates

RD3, Female, Age 21, Unmarried, dependence: 0, Stay: Single, Educational Status: HSC

RD8, Male, Age 24, Unmarried, dependence: 0, Stay: Single, Educational Status: Graduates

RD8, Female, Age 35, Married, dependence: 5, Stay: Single, Educational Status: Graduates

Economic Development

For the last three decades, the development of economy in the developing countries depends on the expansion of employment in the informal sector other than the formal sector (Abdallah, 2017). Because informal employment is increasing significantly and contributing to economic development (Bacchetta, Ernst, and Bustamante, 2009). From an economic development perspective, ride-sharing services can generate new avenues in terms of market share and social benefits. Moreover, ride-sharing companies are providing benefits of new dimensions of service and a new area of earning a profit (Belk, 2014). A ride-sharing service is a budding form of transportation that optimistically contributes to economic development and sustainability (Geisberger et al., 2010; Hansen et al., 2010). The participants’ responses are stated in the following summary form below:

“Most people enter the ride-sharing business not by choice but as a consequence of a lack of opportunities in the formal economy and in the absence of any other means of earning for living. It creates an extra income for the community’s general people, especially those who do not have a particular job. Through involvement in the ride-sharing business, the people of Bangladesh significantly reduce economic inequality. It is estimated that ride-sharing is already a BDT 2200 crore business, comprising 23% of the transportation sector. It is found that a few years ago acquaintance with app-based ride-sharing businesses brought tremendous changes in the income of the people who take this sector as informal and play a vital role for the economic development of the country.”

UR2, Male, Age 31, Married, dependence: 3, Single, Educational Status: HSC
 # OB1, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate
 # OB2, Male, Age 32, Married, dependence: 4, Stay: Single, Educational Status: SSC
 # RD5, Male, Age 18, Unmarried, dependence: 0, Stay: Family, Educational Status: HSC

5. Discussions and Implications

5.1 Discussions

The transportation sector got drastic changes by using modern technology (Amey, 2010). Due to the rapid infrastructural and industrial development, modern technology changes the mode and services of transportation by applying web 2.0 technologies and services, etc. (Sakib & Mia, 2019). This web 2.0 technology advanced vehicles, mobile communication networks, real-time responses, and standard bandwidth of the internet. Ride-sharing is a technology-based transportation service based on-demand mobility in which drivers and commuters are connected via an application software (Fielbaum & Tirachini, 2020). This app-based digital system provides the services through smartphones or tablets. With this digital system, there are options for booking, electronic payment, and ratings of passengers and drivers (Shaheen, Cohen & Zohdy, 2016).

Ride-sharing platforms determine trip fares, which are known in advance and are accepted by passengers and drivers. Once a trip is finished and the fare of the service is processed, then the ride-sharing platform collects a percentage of the total fare and transferred it to the drivers as a commission (Fielbaum & Tirachini, 2020). This dynamic and online-based service brings many benefits to both the drivers and commuters by leveraging time and cost. It is also associated with the benefit of reducing the burden of using excessive personal vehicles and provides relief from traffic congestion. Moreover, it brings a new avenue for employment especially for the part-time employees and the students also. (Agatz et al., 2012). At present, this service has explored the opportunities and benefits of online or internet-based marketing in the country (Kumar, Jafarinaimi & Morshed, 2018).

The ride-sharing business has gained long-term economic importance and appeared as one of the fast-rising service industries in creating employment. It as an instrument of economic and socio-cultural development brings a possibility to empower communities by addressing their interests and benefits (Almeida, 2019). Moreover, it gradually enhances the economic strengths of the commuters in various forms (Ahmed et al., 2020). Thus, the ride-sharing service business extends an opportunity to emerge as an informal economy by providing income, investment, and employment in the country (Karim, 2020). Ride-sharing service also contributes to

unemployed people engaging with employment informally. Such contribution turns out to be the platform for creating job opportunities and entrepreneurship. It figures out several ways for the unemployed people to get engaged with self businesses towards financial independence. It also unveils the horizons for more economically viable activities to be taken place and broaden the scope for all forms of investment opportunities that generate return within a shortage possible of time (Bracha, & Burke, 2016). There is a nexus between ride-sharing services and the improvement of living standards of the commuters is found. The exploration of generating income and revenues by creating informal employment opportunities and providing chances to people to be engaged in this informal employment for improving their standard of living.

Moreover, ride-sharing business as micro-enterprises that require small investments, freedom, and enjoy minimal state regulation represents a viable opportunity for overcoming poverty and providing work to others (Zein, 2018). People mitigate their inflation problem to engage with such businesses and tend to bring economic stability through this informal employment. Job seekers engage themselves in informal employment like ride-sharing businesses because of avoiding economic corruption activities. Ride-sharing businesses have created enormous opportunities for the employment of the people who expect extra income for meeting up their hiked wants (Rahel, 2016). This opportunity also helps to expand employment for the women of Bangladesh. From an economic development perspective, this sector creates more opportunities in terms of market share and social benefits. Moreover, new dimensions of service use and a new area of earning a profit also are benefiting this business.

Nevertheless, the ineffectiveness and unreliability of the transport steering plans are one of the challenges of this service. This challenge can mitigate by re-positioning pick-up or drop-off locations. When the female passengers felt discomfort about sharing a bike ride behind a male driver then and then “OBHAI” launched a new feature “OBON” for the female riders. The “OBON” ride-sharing service appointed female drivers (Nowshin, 2020). In the informal sector, the workers of ride-sharing yet are suffering from a lack of a written employment contract and other employment benefits. A holistic approach needs to be undertaken by the government and stakeholders in formulating rules and regulations to oversee this sector and also should take steps to provide necessary assistance to the people who are involved with this sector.

5.2 Implications

The findings of this study provide an overall knowledge and understanding of how ride-sharing businesses play a role to create informal employment in a country, particularly in Bangladesh. Similarly, it assists in informing the stakeholders how

ride-sharing businesses play a key role in bringing socio-cultural, infrastructural, and economic development by creating informal employment for the people of the country. The findings can be helpful to formulate comprehensive plans and policies to boost the ride-sharing service that may assist in bringing significant employment creation. The insight of the findings approaches the ride-sharing service as a catalyst for commuters' empowerment that may explore a new dimension for enabling their happy livelihood and simultaneously contribute towards making the country economically empowered. The government and non-government organizations can take the initiative to provide formal training, education, and awareness to the commuters. Simultaneously, policies and strategies can be designed and implemented accordingly for enhancing the sector. Furthermore, the technical organizations and investors can be aided by the findings in finalizing their decision to invest, support, and patronize this sector. In addition, this paper might add knowledge to this field of studies by examining how the ride-sharing business contributes to creating employment in the country particularly informally. More specifically, with the typical findings of previous studies, this article indicates that the ride-sharing business creates informal employment due to the influence of various factors and issues. This finding will specify the future research avenues; grow the interest of the scholars in conducting additional research in this area.

6. Conclusions, Limitations, and Future Research Avenues

The ride-sharing industry has witnessed entries and exits of start-up companies within a very short time. Recently ride-sharing is bringing great relief to the inhabitants of the people of Dhaka city and some other districts (Jahan, 2019). Many ride-sharing services are launched with innovative technology to make the mobility of the people more conveniently and flexible and create informal employment opportunities for the people of Bangladesh especially the young people of the country (Islam et al., 2019). It is viewed as a feasible option that can proffer long-term growth, employment, multiplier effect, and macroeconomic stability. Ride-sharing business as an instrument of growing informal employment through secured app-based infrastructure, socio-cultural improvement, inflation control, reduction of unemployment and income inequality, economic corruption avoidance, empowering women, and economic development (Sakib & Mia, 2019). These instruments enable both drivers and riders to enhance their capabilities and engender to engage in ride-sharing business for generating informal employment. Meanwhile, it needs the development of infrastructural facilities such as roads and technologies to advance the ride-sharing industry for the people of Bangladesh to avail more opportunities for employment. This study creates valuable insights for academics, policymakers, and participants who are interested to involve in informal sector employment in Bangladesh.

However, this research is not without its limits. This study relied on the data collected from Dhaka city. More divisional cities covering ride-sharing services can be included in future studies in order to make the findings more vibrant. This study used a non-probability convenience sampling technique further study can be undertaken using the probability sampling technique. Moreover, this research incorporates only a qualitative approach, in the future quantitative or mixed-method approaches may apply to consolidate the viability of the outcome as a whole. Last but not least, future research should initiate to find out the challenges and prospects of women's entrepreneurship development in Bangladesh through ride-sharing services.

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Appendix

A) Respondents List

No.	Profession	Gender	Age Group	Marital Status	No. of dependence	Family (Stay)	Education
1	UR1	Male	29	Married	3	Single	Graduate
2	UR2	Male	31	Married	3	Single	HSC
3	UR3	Male	39	Married	5	Single	HSC
4	PO1	Male	26	Unmarried	2	Single	SSC
5	PO2	Male	28	Married	3	Single	HSC
6	PO3	Male	37	Married	4	Single	HSSC
7	PO4	Male	32	Married	3	Single	SSC
8	PO5	Male	28	Unmarried	2	Single	HSC
9	PO6	Male	29	Unmarried	3	Single	Graduate
10	OB1	Male	28	Unmarried	2	Single	Graduate
11	OB2	Male	32	Married	4	Single	SSC
12	OB1	Male	35	Married	5	Single	Graduate
13	RD1	Male	18	Unmarried	2	Single	SSC
14	RD2	Male	25	Unmarried	2	Single	SSC
15	RD3	Female	21	Unmarried	0	Family	HSC
16	RD4	Male	40	Married	4	Single	Graduate
17	RD5	Male	18	Unmarried	0	Family	HSC
18	RD6	Male	32	Married	3	Single	Graduate
19	RD7	Female	28	Unmarried	2	Family	Graduate
20	RD8	Male	24	Unmarried	0	Single	Graduate

B) In-depth Interview Questions

The prominent purpose of this study is to investigate the role of the ride-sharing business in creating informal employment opportunities in Bangladesh.

Interview Protocols/ guidelines:

- a) Open-ended questionnaires
- b) Natural set up
- c) Medium of language is English but the respondents are allowed to give answers in Bangla upon his desire.
- d) The interview session may last around 40 to 45 minutes and the entire session is recorded using audio recorder. Note taking using paper pencil is also employed to record the highlighted issues informed by the respondents.

Demographic Variables

1. **Gender:** a) Male b) Female
2. **Education:** a) No Education b) Primary c) Secondary d) Higher- Secondary
e) Graduate
3. **Age:** a) 18-25 Years b) 25-32 Years c) 32- Above Years
4. **Occupation:** a) Employed b) Unemployed d) Business d) Students
5. **Marital Status:** a) Married b) Unmarried c) Divorced
6. **No. of Dependence:** a) No dependence b) 1-3 dependence
c) 3-6 dependence d) 6-9 dependence
7. **Family Type (Staying):** a) Single b) Family
8. **Respondent Types:** a) Drivers b) Riders

Questions for the Drivers**Main Question:**

How can you explain about the role of the ride-sharing business in creating informal employment opportunities in Bangladesh?

Probing Questions:

- i. What do you think regarding minimum quality of the drivers to start ride-sharing business?
- ii. What is your opinion regarding the infrastructural need for ride-sharing business?
- iii. How does ride-sharing business improve the social character?
- iv. Do you think the increasing the price level of consumer goods is one of the main causes to enter you in the ride-sharing business?
- v. How does ride-sharing business reduce the unemployment?
- vi. How does ride-sharing business decrease the economic corruption?
- vii. Does ride-sharing business reduce income inequality? How?
- viii. Do you feel freedom in decision making in your ride-sharing business?
- ix. What is your opinion regarding the employment generation for woman by the ride-sharing service?

- x. Why do you choose such employment to avoid the economic corruption of the formal employment?
- xi. What are the basic rights involved with the ride-sharing business?
- xii. What is your opinion regarding the contribution of ride-sharing service to the economic development?

Questions for the Riders

Main Question:

How can you explain about the role of the ride-sharing business in creating informal employment opportunities in Bangladesh?

Probing Questions:

- i. What is your opinion regarding the ride sharing drivers to avail the riding services?
- ii. Do you think that ride sharing businesses stand with required infrastructural design?
- iii. Do you think that ride sharing business contributes to the social improvement?
- iv. Is it the price hikes of the daily necessities that made you to avail ride sharing services?
- v. Do you think that ride sharing services in the country reduce unemployment problem?
- vi. Can ride sharing services reduce economic corruption?
- vii. Does ride-sharing business reduce income inequality? How is your opinion?
- viii. Do you think that more females should come to join ride sharing services?
- ix. Is it your right to avail ride sharing services and choose any of the ride sharing services of your own will?
- x. Do you think, as an informal sector, ride sharing businesses have the potential to contribute significantly to the economic development of Bangladesh?

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STUDENTS' PERCEPTION ABOUT ONLINE LEARNING IN THE EDUCATION SECTOR DURING COVID-19: A STUDY ON THE DIFFERENT EDUCATIONAL INSTITUTIONS OF BANGLADESH

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Abstract

The COVID-19 has made monumental changes in the field of education as it has already made large interruption in the way the conventional education system to run their classes and doing their lessons not only in Bangladesh but also around the world. To adopt this situation world-wide all the education systems have temporarily shifted from traditional learning to online learning and Bangladesh is also in this platform. This study is emphasized on the online teaching modes adopted by the different educational institutes for their students for the learning process as well as to assess the perceptions of the students regarding this new experience. This study employs quantitative and qualitative approaches to study the perceptions of students on online learning modes and how different modes are followed by different educational institutes during emergency online learning. A comprehensive search of the literature in different sites online was also called upon in considering, and a Google survey and interview were made with many students for this purpose. The result reveals that most of the respondents did not attend any online classes before this pandemic and most of the online classes are conducting using Zoom and Google Classroom/ Meet platform where most of the students are university level. However, students do appreciate the mode of conducting online classes as their experiences are pretty familiar with their perceptions. As Bangladesh is adopting online learning, this study can contribute to developing this online learning platform for an upcoming situation where this learning platform can bring out several positive outcomes.

Keywords: Online learning, students' perception, COVID-19, education system, Bangladesh.

1. Introduction

The new Corona virus has already wreaked devastation around the world, hitting practically every country, and its spread is still on the rise, affecting virtually every industry. However, from late 2019 till today 2022, it has had a significant impacts on world education. A report of World Economic Forum argued that the COVID-19 already prevent over 1.2 billion youngsters from attending school in April 2020. As a result of the epidemic, educational institutes around the world were forced to close,

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and educational methods acquire rapidly with the launching of online learning. Before the Covid-19 pandemic, online learning was primarily viewed as an optional mode of education, but the pandemic time caused it to take the position of being the primary form of learning. As a result, educational institutions are now using online platforms to assist students in their studying (Mulyanti et al., 2020). Furthermore, several distance learning platforms make their pandemic resources available for free (Li and Lalani, 2020). Nonetheless, the most frequently encountered hurdles in online education are a lack of appropriate resources and suitable teacher training, limited access to technology, faculty preparation, late adoption of learners' online learning, and a lack of technical facilities in remote areas (Dubey and Pandey, 2020).

Educational sector of Bangladesh like other countries over the world, is severely affected by COVID-19. COVID-19 led in academic closure in Bangladesh in March 2020. (Moralista & Oducado, 2020). Academic activities have been severely disrupted, and students are disgruntled as they consider their academic future in the aftermath of the COVID-19 Lockdown. The online class has brought a lot of attention to Bangladesh's education system, as well as other countries'. Furthermore, virtual teaching-learning was a novel experience at practically all Bangladeshi universities; unexpected closures of face-to-face classes allowed professors and students the shortest time to adjust to the new virtual class and classroom alternative. Facebook, Zoom, Google Classroom, Google Meet, and other platforms offer ways for academic institutions to engage with students (Fami, 2020). However, problems about e-learning readiness, design, and efficacy remain unanswered, particularly for a developing country like Bangladesh. Technical constraints such as device appropriateness and bandwidth availability represent a significant difficulty. For a country like ours, online learning is difficult; it is not just only for the students, but also for the teachers. Some schools used "synchronous" learning, which takes place at a specified time and through a certain medium. In Bangladesh, the majority of students confront a variety of challenges while taking online classes. On the other side, some teachers are finding it difficult to teach online because they have never conducted an online class or received any training in this area. The study attempts to analyse the reality of higher education in Bangladesh during the COVID-19 pandemic. Besides, government measures (stay-at-home and/or physical distance), university-level students' perspectives of online learning adoption, use, and acceptability were investigated here by the researchers. To reveal this fact, a web-based questionnaire was formed to collect data through the respondents (student) and the author's personal observation via online Zoom classes/ Zoom meeting conversation of different university students of Bangladesh. After finding out several issues, the researchers think that it will be helpful for the government and institutional authorities to take some initiatives to make online class effective. The study findings may be useful tools for the stakeholders in our educational systems in developing a plan for universities to maintain their e-learning programs throughout

the pandemic and any further crisis. Furthermore, this study discusses the challenges, benefits, and future of online education in Bangladesh. Students may experience unique challenges relating to online class preparedness, participation, and activities after transferring to online classrooms during the epidemic.

2. Research Objectives

The present study attempts to investigate the scenario of higher education in Bangladesh during the COVID-19 pandemic. Along with the main objective, the researchers have fixed the following specific objectives to make the study a goal oriented. The objectives are-

- to have a look on the state of online learning during COVID-19 in Bangladesh;
- to know about the modes/ tools used in conducting online classes during COVID-19; and
- to know about the students' preparedness, adoption process and their perceptions about the online classes.

3. Research questions:

To conduct the study following research questions are considered:

- RQ1: What are the real scenario and challenges of online learning in Bangladesh?
- RQ2: How (the modes/ tool and techniques) online classes are conducting over online?
- RQ3: What's the students' perception regarding online learning?

4. Literature Review

Students can learn via the internet using electronic devices such as laptops, mobile phones, and tablet PCs rather than attending academic institutions in online education. The spread of the Covid-19 epidemic has led in a massive mortality toll around the world, as well as widespread alarm and uncertainty. Countries all over the world are working to close the gap and reduce the number of students who have died as a result of the current pandemic. However, as indicated by the discovery of various difficulties in the context of online teaching and learning, which caused considerable concern about the sensitive subject of online education during COVID-19, the outcomes of online education are not always beneficial to the learners' community. For starters, students who participate in online or distance learning are geographically separated from their lecturers and require a delivery method (Wang, Shan- non, & Ross, 2013; Wilde & Hsu, 2019). Second, ICT facilitates student-teacher interaction, and the design of new education environments (e.g., the physical location where learning occurs) can have a substantial impact on learning outcomes (Bower, 2019;

Wang et al., 2013). Third, prospering online learning is the outcome of careful methodological design and planning, which has been studied for decades (Hodges et al., 2020). With today's technology breakthroughs, we may create online content in a variety of ways. To make learning successful and productive, it is critical to consider learners' preferences and views when building online courses. The learner's preference is linked to his or her readiness or willingness to participate in collaborative learning, as well as the elements that influence readiness for online learning. Any endeavour to increase the effectiveness of online teaching and learning must consider the users' perceptions as the students have both optimistic and pessimistic sensitivity towards online classes. Several studies have found that the teachers' interaction with pupil has a significant impact on students' cognition of online learning. The ability of course teacher play vital role to increase or decrease the critical thinking skills and information processing (Duffy et al., 1998; Picciano, 2002; Hay et al., 2004), and the pace of interactivity in the online setting (Arbaugh et al., 2000).

Several research were conducted in order to rationalize the concept of online learning and the learners' readiness. Former studies identified that self-reliant learning (Guglielmino (1977); motivation for learning (Ryan and Deci, 2000; Fairchild et al., 2005), learner control (Shyu and Brown, 1992; Hung et al., 2010), online communication self-efficacy (Roper et. al., 2010) act as the factors that influenced the readiness of learner for online learning. A well-designed course materials, well-prepared teacher, innovative and modern technologies and proper response and clear instructions are all indispensable constituent of a good online class (Sun and Chen, 2016; Gilbert, 2015). Students' mental conditions, frustration over the long period of study gap make them willing to enrol in online programs (Shama and Ikbai, 2020). They do, however, lack the necessary technical skills, such as access to inexpensive information for online lectures. According to Biswas et al. (2020), mobile learning is a useful educational tool in all developing nations, however it is not employed correctly in Bangladesh. University students in Bangladesh, on the other hand, are eager to learn online. In addition, they do research using a variety of network protocols including social media. Students believe that filling up the study gap during the COVID-19 epidemic is beneficial. According to Hajri et al. (2017), the accessibility of mobile phones among the learners is the essential reason for them paring their attraction to online learning in order to complete their ongoing education.

To expedite learning, so many tools are used such as WhatsApp which can message or share documents, information, and presentations, whereas YouTube for self-learning through viewing others' comments, Zoom, Skype, and Google Meet as video conferencing and/ or taking classes and examinations. Students are increasingly confident in their ability to learn, access, exchange, and generate

meaningful information and gain understanding of a subject utilizing technology. In Bangladesh, a significant majority of pupils reside in rural areas. Some of them reside in a remote rural region where these necessities are difficult to get by (The Independent BD, 2020a). Students are also compelled to use a variety of online learning tools that require a fast internet connection. However, in rural locations, obtaining a high-speed network connection to complete online coursework is nearly impossible. These students complete their courses online due to a lack of suitable instructions, which may jeopardize their future education or employment opportunities (Zaman, 2020). In rural locations, most students must purchase data packs in order to participate in online classes. However, due to network issues in rural locations and the expensive cost of data packs, the ratio of pupils has shifted. This problem was explored in greater depth in the national budget for 2020-2021 and also for 2021-2022. The findings suggest that if a country wishes to go toward online education, it must first improve its internet infrastructure. Along with the issues outlined above, the lack of a traditional style of direct interactions in classrooms is a key worry while conducting online classes.

A large number of earlier research have been noted in the literature, which give the basic theoretical account for knowing students' perceptual experience of online teaching method and also identified potency challenges for online learning's success. However, few studies have attempted to embrace students' perceptions and preferences in the context of Bangladesh. Before the Covid-19 epidemic, just a few distance learning programs were adopting online means of education. Only a few studies have been performed, as far as we know, to reveal the general perception of students from various university levels in Bangladesh, despite the fact that higher education in Bangladesh plays a vital part in the growth and outcome of education systems in Bangladesh. We attempted to fill the vacuum and present the scenario of online learning in this research, focusing on undergraduate and graduate students. The goal of this study was to discover the obstacles and opportunities faced by countries that are not as technologically advanced as those that are. Covid-19 had numerous effects on our daily life, but the effects on education, particularly on students, are substantial obstacles to overcome. Policymakers can use a variety of measures to adapt to this circumstance right now and in the near future.

5. Research Methodology

Using both primary and secondary data, the study primarily focused on descriptive methods with some quantitative analysis. According to Mugenda & Mugenda (2003), descriptive survey design aids researchers in gathering, summarizing, presenting, and interpreting data in order to clarify. To collect primary data the researcher developed a web-based structured questionnaire using Google forms and render the survey on the respondents (students). Besides, the author's

personal observation via online Zoom classes/ Zoom meeting conversation of different university students of Bangladesh also taking into consideration to do the study. For secondary data, the researchers review many publications from different internet-based database linked to the impacts of online learning and students' perceptions about it.

The authors adopt Cochran (1963) suggestion to determine sample size- at 7% precision level the sample should be at least 200; and the researchers here considered 220 samples for the study. Collected data were organized and analyzed using MS-Excel and IBM SPSS-25 software. Descriptive statistics were carried out to understand the distribution of study participants. The statements were prepared based on an extensive review of literature and discussion with experts to minimize researcher bias. To identify and summarize the perceptions of the students', statements were rated on a five-point continuum scale (5= strongly agree; 1= strongly disagree). Frequency and percentage were calculated for most of the questions to summarize the data to assess online classes' opinions and perceptions related to study due to the lockdown.

6. Education in Bangladesh during COVID-19

Online education has been newly added at the country's higher education levels. There are about 46 public and 105 private universities is rendering their education service in Bangladesh to educate students in higher level. Furthermore, about 1500 colleges affiliated with National University of Bangladesh which also offer a diverse range of higher education courses and programs. In these unprecedented days, online teaching-learning is the only solution to address global academic difficulties caused by the Corona virus epidemic. Individuals with psycho-social difficulties, mental health issues, impediments to individual growth and development, unequal access to educational materials, and the economic impact on family income are all barriers that must be overcome in Bangladesh using both short and long-term measures. In the aftermath during COVID-19 online learning has opened a new window in the education sector of Bangladesh along with other countries of the world, and it has already considered as the backup plan to offset longer period of educational losses. Before COVID-19 outbreak in Bangladesh, online education was unknown, but it is now widely employed to close the educational gap. The Government of Bangladesh has closed all the education institutions from March 17, 2020, after confirming the first COVID-19 case on March 8, 2020, to limit the virus's rapid spread, according to The Business Standard June 2020. (Islam et al., 2020). Following the closure of all educational institutions, the ministry of education directed all universities to implement online education. In Bangladesh, the use of web-based resources is increasing at an increasing rate. Most academic institutions in Bangladesh have chosen to create online courses through academic portals (Chowdhury, 2020b). Soon

after, the Bangladeshi government instructed instructors to conduct classes for primary school children via television. In the wake of the Lockdown, private schools have hastened to embrace web-based learning methodologies, offering lectures delivered via online media platforms such as Zoom, Google Classroom, Google Meet, WhatsApp, Facebook, and YouTube (Bhuiyan, 2020; Chen et al., 2020). Later, the University Grants Commission approved universities' use of online media such as Zoom, Google Meet, and others to complete their semesters. BdREN supports 147 of Bangladesh's 153 public and private institutions in their efforts to teach online (Rahman et al., 2020).

Bangladesh lacks technological resources, has a high cost, has inconsistent internet connections, has a family financial problems, and pupils have a psychological load. Because of the government's lack of technical and methodological support, most of the students were initially opposed the initiation of taking online classes (Ramij and Sultana, 2020). There is a high possibility of session jams at the universities. Over a longer period of time Bangladesh's education system is going through an uncertain situation, the Education ministry, the Parents of the students, and the stakeholders involved with the education systems are not sure what to decide, how to implement, and how to respond to this pandemic situation. Looking back to April 30, 2020, the Government asked the public and private universities to continue their curriculum through online classes and start their academic activities online. Finally, UGC the guardian of the higher education institutions announced that both public and private universities would be able to take online tests in order to reduce session length and the education gap. Besides, the UGC offers low-interest loans to students who cannot afford digital equipment to run their education and online learning smoothly. Public universities employ a variety of technologies to deliver online classes, but Zoom and Google Meet are the most popular. Many universities now offer their practical and lab sessions online as well. Although it has been difficult for students who reside in rural locations to take online classes, it has also provided them with benefits. According to the UGC, at the start of online learning, 63 universities in Bangladesh, including seven public institutions and 56 private institutions, offered online classes with 60-70 percent student attendance (Sujan, 2020). While ignoring all of the drawbacks of online education, these classes assisted students in filling in the gaps in their studies (Abdullah, 2020). According to a recent poll, while 40% of students take online classes, over 50% of students are unable to do so due to a lack of device availability. However, the majority of them (70%) are from private universities. Students often believe that the practicality and efficacy of online courses are questionable (Islam et al., 2020).

In comparison, according to 2020, around 12.70 percent of impoverished families do not own a mobile phone, despite the fact that students require at least a Smartphone and a strong internet connection to participate in online education (Tariq

and Fami, 2020). Students from private universities completed their semesters faster than students at public universities by giving exams on time (The Independent BD, 2020). Some institutions are now providing free internet packets to students who attend Zoom or Google Meet. However, in rural regions, internet services are so bad that low-income families do not have enough data to use it adequately (Daily Star, 2020). After publishing the HSC result, UGC stated that Private universities could admit their new students using online if they want to to run their education program regular basis. Considering the situation UGC instructed all the universities to take online exams and/ or in campus exam arrangement to clear the gradation and post graduation final examination. So, now public universities are preparing themselves to take examinations as their own way whether it is online or on-campus exams with maintaining social distance.

6. Impacts of COVID-19 on Educational Institution

During the Covid-19 period, the world of third-tier pupils has been blighted by educational hurdles. Because of the catastrophic spread of Corona virus, the government declared the closure of all academic institutions, and coaching centres in Bangladesh as numerous suspicious cases began to emerge. Since March 17, 2020, all educational institutions in Bangladesh have been shuttered (Barua, 2020). Due to the statement, the library and residential halls were immediately shuttered. Students living in university dorms were compelled to leave campus and return home on short notice, and as a result, they were unable to bring all of their belongings with them. As a result, kids from elementary school to university are obliged to sit at home rather than attend lessons in order to preserve social distance (Dutta & Smita, 2020). During the Lockdown, university students lost their jobs as a result of the closure of stores and restaurants, and many suffered greatly as a result. Due to Coronavirus many students' parents become unemployed. Students at certain private universities are also required to pay semester fees. Students are worried about making ends meet during Covid-19 (Emon et al., 2020). Engineering and medical students also face significant challenges. They are unable to participate in any workshops or practice classes, which will have a detrimental impact on their careers (Islam et al., 2020). To support students' distance learning alternatives ways of education must be developed from the primary to higher education levels of learning. Due to poor economic condition the students are supposed to drop out which will impact on early marriage, child labour and so on. The mental health of pupils has been adversely impacted by this pandemic, and the development process has been hampered. In their lives, they are confronted with a variety of psychological issues that require careful attention.

The global economic recession affects all working people in South Asian countries, but the worst suffer are the lower middle and lower social classes in Bangladesh. The pandemic has also disturbed the lives of instructors. Long-term

absences and disengagement from teaching, as well as ongoing professional development, will have an impact on teaching quality and motivation. Non-formal learning centres, vocational, and technical training facilities, and other non-formal types of education and skill training have all been closed as a result of the pandemic. Some Bangladeshi students have squandered their time on Facebook, television, and web series rather than focusing on their school work. Most of the time, kids are engrossed in pointless talk in several Facebook and WhatsApp groups, jeopardizing their future (Barua, 2020).

As a result, students from socioeconomic backwardness are more likely to drop out of school since their parents cannot afford to continue paying the tuition. Students at the tertiary level, are likely to lose interest to continue their studies. This tertiary student are mostly the youngsters who are not confined for an extended period of time. As a result, these kids are becoming increasingly reliant on the internet and social media platforms. These populations' mental health is severely harmed as they face a challenging moment in their lives. An academic session jam has occurred due to the indefinite shutdown of educational institutions (Hossain, 2020). Especially the final year students who thought to become graduates at the end of 2020 have missed their opportunity to catch many job circulars. Still, some private universities compelled their students to finish their final year semester exam and made them graduate. This kind of short time exam was not well evaluated. Ultimately, they became graduates, but quality education was not ensured during this process. In the absence of education and skills training to support access to traditional job markets, economic impacts, especially among post-secondary students, may increase the risk of youth unemployment (ILO, 2020). Massive job losses in recent times and increasing working pressure have a particularly painful effect on young people worldwide. Youth people are already at risk in the workforce before the crises. Recent situations only pinpointed that losses or disruptions in the academic year will affect disadvantaged youth from poor socioeconomic families, mainly due to the increased cost of education opportunities. It can increase anti-social activity and social unrest among the youth. This is a particular risk in Bangladesh due to covid-19 to youth and social media (Mopme, 2020).

7. Results and Discussion:

The findings from the present study are presented below.

Type of educational institute, gender, educational field, current study level, and location of residence were among the demographic characteristics. There were 160 male respondents (72.70 percent) compared to 60 female respondents (27.30 percent). The bulk of the respondents (107, or 48.60%) came from a rural background, while 72 (32.7%) came from metropolitan areas, and only 41 (18.7%) came from semi-urban areas. Moreover half of the responses (57.3%) came from

different private institutions, while 24.8 percent came from public universities, and the rest came from national universities (11.6 percent) and other educational/affiliated education institutes (6.3 percent). In this survey, the respondents' response in the question of in which year they are in now, 11.3% answered that they are in 1st year, 13.9% were in 2nd year, and 16.9% were in 3rd year at their education field. In comparison, most of the students were from the final year and master level where 39% from the final year and 19.9% from the master level. From the survey we have come to know that most of the students are from business studies field (56.1%) where 19.1% are from Science & Engineering, 16.5% are from Arts & Social Science and rest of the students (8.3%) are from other different educational backgrounds.

Table 1. Respondents' demographic information

<i>Demographic variables</i>		<i>Percentage (N =220)</i>
Type of Education Institute	Private University	57.3
	Public University	24.8
	National University	11.6
	Other	6.3
Education Field	Science& Engineering	19.1
	Business Studies	56.1
	Arts & Social Science	16.5
	Other	8.3
Gender	Male	72.7
	Female	27.3
Current Study Level	1st year	11.3
	2 nd Year	13.9
	3 rd Year	16.9
	Final Year	39
	Master	19.9
Place of Residence	Urban	48.6
	Rural	32.7
	Semi-urban	18.7

Source: Field Survey

Table -2. Basic Information Regarding Online Class

Questions	Response	Percentage (N =220)
Did you attend any online classes before COVID-19?	Yes	29.6
	No	70.4
Did your institute start conducting online classes from the very beginning of the Government Declaration to do online classes?	Yes	63
	No	37

Source: Field Survey

The table indicates that only 155 (70.45%) of the respondents had not participated any online classes before, and 65 (29.6%) had participated there. It has been mentioned that everybody who has taken online classes has received various types of instruction and other teaching resources. Furthermore, 63 percent of respondents claimed that online lessons have already begun at the institutions where they have registered, while 37 percent claimed that their university has yet to begin online lessons as a result of the Bangladesh government's proclamation.

Table-3. The technical requirements, class duration and frequency, and other issues

Questions	Response	Percentage (N =220)
Technical Requirements for Online Classes:		
Which device do you prefer for an online class?	Desktop	7.6
	Laptop	14.3
	Smartphone	34.4
	Both Desktop & Smartphone	43.7
	Other	0
Which source do you use for your internet connection?	LAN	12.5
	Mobile Data Pack	26
	Wi-Fi	61.5
Structure of online classes.		
Online Classes Format.	Live Classes	100
	Recorded Classes uploaded on the online platform.	
	Sending reading materials	
Modes of Online classes:	Google Classroom	16.2
	Zoom/Google Meet/Skype	55.9
	Individual E-Learning Management	0
	YouTube Videos/Facebook streaming	7.3
	Zoom, Facebook Live, and YouTube videos.	6.3
	Zoom/ Google classroom	14.3

Nature of Course Material	Reading material is well designed	22.1
	Video content is also provided with reading materials.	32.5
	Classes and Video Content is enough.	22.1
	PPT slides	23.4
Equipment of online classes	Lecture only	22.1
	PPT Slides	27.3
	PPT Slides & Whiteboard	13
	PDF books & others	37.7
Frequency and duration of online classes		
How often do you want to attend online classes?	As per the schedule	72.7
	Weekly once	14.3
	Weekly Twice	9.1
	Not interested to attend	3.9
How much time do you want for a single class for online classes?	30-40 min	22.1
	41-50 min	15.6
	51-60 min	24.7
	More than 1 hour	37.7
How many classes do you like to attend in a day for online classes?	1	3.9
	2	33.8
	Not more than two	40.3
	Do not want daily	22.1
How do you ask any queries?	Live chat	22.1
	Live chat & e-mail	9.1
	Raising hand at the class.	37.7
	Message/Post after/during classes at online classes modes	31.2
How many students an online class usually consist of?	20-30	49.4
	31-50	42.9
	51-70	3.9
	71-100+	3.9

Plans and criteria for evaluation.		
Do you attend an online exam?	Yes	54.8
	No	45.2
Nature of Online Exam	Subjective	24.7
	Objective	1.3
	Both	67.5
	Have not Attended	6.5

Source: Field Survey

In table-3 some other related issues are presented considering tools and techniques, class duration, frequency of classes, and all other arrangements are presented. The respondents argued in favor of technical support they use-smartphones (34.4 percent), laptop (14.3 percent), desktop (7.6 percent), and both desktop and smartphone (43.70 percent) were the devices preferred by respondents for attending online classes. This clearly indicates that any organization developing an application for online learning must ensure that the platform is compatible with smartphones. Mobile data packs were the source of internet for 26% of respondents, with the majority of respondents saying they normally use Wi-Fi (61.5%) and the rest saying they generally use desktops with LAN as the source of internet connection. Whenever a simple question was asked about the format of online classes 100% give their answer that they usually did Live classes at different platforms. Majority of the respondents (55.9%) said that Zoom/ Google Meet/ Skype was the best way to communicate class updates. Rest of the respondents prefer Google Classroom (16.2%), YouTube Videos/ Facebook streaming (7.3%), Zoom, Facebook Live, and YouTube videos (6.3%), Zoom/ Google classroom (14.3%).

In the online platform the nature of the course materials were generally is good enough where Reading material was well designed(22.1%) said so, whereas majority said that Video content was also provided with reading materials (32.5%), from the rest of the respondents were saying that Classes and Video Content was enough (22.1%) and the rest said the course contents was PPT slides (23.4%).Whenever the instructor were conducting online classes they usually used Lecture only (22.1%), whereas PPT Slides (27.3%), PPT Slides & Whiteboard (13%) and rest of the respondents said it was PDF books & others(37.7%). As online classes were conducted to minimize the education gap the frequency about the conducting of online classes was conducted as per the schedule (72.7%), Weekly once (14.3%), Weekly twice (9.1%) and most interestingly some of the respondents were saying that they would not be interested to do online classes (3.9%). Around 58% of the learners wanted online classes for twice in a week with 33.3% respondents preferring 45 min duration for each class. Where majority said that not more than two class (40.3%), and somebody didn't want daily online classes (22.1%). Surprisingly,

54.8% of the respondents attended at online exam and majority of them belonged to private universities and different educational institutes, where rest of the 45.2% did not take part in online examination. Moreover that 24.7% of total respondents gave their opinion that they would like to give subjective (24.7%) and only (1.3%) objective examination. Whereas (27.5%) were ready to give their online examination in the form of subjective & objective both. Rest of the (47.5%) did not take part in examination.

As stated in Table 4, the frequency and percentage were determined for each of the fourteen questions graded on a five-point Likert-scale. There were few differences in graduate and postgraduate students' attitudes toward online learning, according to the study. It's also obvious that about 60% of respondents feel that when it comes to communicating with the instructor, online programs are less effective than face-to-face classes.

Table 4. Descriptive statistics

Questions relating to students perception regarding online classes and learning	N	Mean	Std. Dev.	Variance
I prefer my online courses as they are very structured with set due date similar to face-to-face courses.	220	3.1727	1.09260	1.194
Online classes help me comprehend the course materials compared to Classroom learning.	220	3.2045	1.15825	1.342
The online environment makes it easier for me to communicate with my instructor than the classroom environment.	220	2.9364	1.31918	1.740
The nature of online classes' content should be easy to understand.	220	3.1818	1.21017	1.465
I am more comfortable responding to questions by e-mail than orally.	220	2.9318	1.17814	1.388
The online class has enabled me to gather knowledge of new tools.	220	3.4591	1.14004	1.300
I spend more time on my homework in comparison with regular classroom learning.	220	3.0227	1.13654	1.292
The instructor understands the online environment and makes it easy to learn whereas continuum.	220	3.4182	.90035	.811
I feel a quiz of 5–10 min during each class is necessary to achieve better.	220	3.2773	1.04704	1.096
I have available Wi-Fi/LAN/data pack to enjoy the internet facility.	220	3.4227	1.26000	1.588

I can access the Internet without interruption.	220	2.7682	1.05375	1.110
Low-quality audio/video/bandwidth interrupts online classes.	220	3.7636	1.13819	1.295
The financial issue does not matter during online classes.	220	2.8227	1.18222	1.398
Online learning provides slides, video, discussion forum, and post-test.	220	3.7864	.91402	.835
Valid N (list wise)	220			

Source: Field Survey

The descriptive statistics illustrate that all the average values are higher than 3.0 (highest point is 5.0), where the standard deviation is ± 1.16 . Besides, the table also reveals that all variables have Cronbach's alpha values ranging from .710 to 0.70, which is the least permissible level of coefficient alpha (Pallant, 2007). Validity can be examined using expert opinion and informed judgment, according to Kothari (2004) which represent in the following table:

Variables	Mean	SD	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Students' Perception	3.221	1.162	.710	.719

8. Conclusion

The COVID-19 epidemic stunned the world, affecting people from all walks of life. In a matter of weeks, most educational institutions around the world were forced to close, and face-to-face education was replaced by online education. This unexpected change put a lot of strain on everyone engaged in the educational process, but it also gave instructors and students a chance to obtain hands-on experience with online learning. Furthermore, the pandemic has demonstrated the importance of being well-prepared in order to preserve high-quality education in the face of upheavals and disasters. As a result, as Bozkurt (2020) points out, the question should be what we will do in the future to avoid repeating our mistakes rather than what we did during the COVID-19 outbreak. The current study intends to aid in this preparedness by analysing the most positive and unfavourable aspects of online education during the pandemic's first wave from the perspective of students.

9. Recommendations

As we are still going through a difficult time but the most warning thing is that we will have to survive after the ending of this breakout. So, for the future practice and the well-being of our education system academic administrations should do the followings:

- a) To make online learning effective, investment is needed for infrastructural development so that we can continue online learning in further crisis moment.
- b) As most of the students or even teachers are using this platform for very first time, training should be provided to them to make online learning fruitful.
- c) As the related parties are facing problems in case of getting smooth internet/Wi-Fi facilities; the education institutions or government should ensure the uninterrupted internet service with minimum cost.
- d) In case of online exams, the questions should be short or quiz type because most of the students are not well equipped and their typing speed is not good enough. Moreover, hand written exam option for students should be accepted for a short period.
- e) Introduce educators to unified knowledge frameworks that allow technology, pedagogy, and content to be integrated. To make it success a support communities should create to help students cope psychologically with the new learning systems
- f) The education institutes should create lines of contact between students and instructors, as well as between students and students. As a result of this network, the students' will be connected in a network and their confidence will grow in online learning.

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EFFECTS OF ONLINE SERVICE QUALITY ON SATISFACTION OF CUSTOMERS: EVIDENCE FROM INTERNET BANKING SERVICES IN BANGLADESH

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Abstract

Since past decade, banking industry has significantly shifted its daily transaction operations and practice towards internet banking. This dramatic change has perceived its effectiveness in terms of ease of transaction, safety and secrecy provided by banks. Until now the customers are reluctant in using and adopting the internet banking as a means of their regular financial transactions and payments. Despite the importance of online banking in this digital era, fewer studies have been conducted on the perception and satisfaction of customers regarding internet banking in the context of Bangladesh. Hence, identifying the impact of the attributes of online service quality on customer satisfaction and customer loyalty in the context of internet banking services delivered by the banks of Bangladesh is the main objective of this study. A survey via structured questionnaire has been conducted for the collection of data and SPSS has been used for analyzing the data to assess the strength of hypothesized connection, if any, among the constructs, which include Online Service-Quality dimensions and Customer Satisfaction consecutively as independent and dependent variable. The findings of the study show that the proposed model of Online Service-Quality is suitable to find out satisfaction of customers in internet banking service, providing enough evidence of the hypothesized relationship among the constructs. Thus, the study provides useful information to the banks in framing their strategies to satisfy its customers and build loyal, long lasting and profitable relationships.

Keywords: E-Service Quality, Customer Satisfaction, Internet Banking

1.0 Introduction

Internet has opened a new window in financial sector of Bangladesh. Online banking is making customers' banking experience more expedient, efficient, and effective. In financial sectors, it is considered a flourishing channel of financial transactions (Oruç & Tatar, 2017). Unfortunately, the people of Bangladesh are still reluctant in using and adopting this online platform in spite of its facilities. Online banking facility includes account check and statement print, internal and other bank fund transfer, mobile phone recharge, credit card payment, loan account information,

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bill payment, updating personal information, ATM information, PIN request, cheque book order and many more. So, it is now becoming important to determine the customers' perception regarding the quality and their satisfaction with the existing online banking services. In banking industry, customer retention and loyalty can be measured by customer satisfaction, and it can help developing effective strategies for efficient customer service in this customer-oriented service industry.

Banking industry has shifted its daily transaction operations and practices towards internet banking since the past decade. Internet banking service is one of the factors that has differentiated new generation banks from the traditional banks. 40 out of 57 scheduled commercial banks in Bangladesh are now offering internet banking services and as on October 2017, the number of internet banking rose to 1.7 million whereas the state-owned commercial banks including the specialized banks users are almost zero percent (Iqbal, 2018).

It is impossible for an organization to survive without its customers considering them as an asset to an organization. Satisfied customer is the focus of all the services provided by commercial banks of Bangladesh. Bangladesh market is generally dependent on prime city-based services mostly dominated by Dhaka, Chattogram, Jessore, Bogura. Covering the TCV (Time, Cost & Value) matrix for customers, commercial banks are focusing on digitalizing their solutions. There is no alternative of providing best quality service available in the marketplace in order to sustain in the long run. And for this shifting towards online, banks have to perceived its effectiveness in terms of ease of transaction, safety, security and privacy provided by banks. In spite of the effectiveness of online banking in several ways, it seems that customers are reluctant in using this service. In Bangladesh context fewer studies have been done on customers' perception on internet banking and their level of satisfaction.

It has been noticed that, the usage and low acceptance level among customers have not brought any noteworthy shift in bank-customer relationship. Existing literature on internet banking in Bangladesh specifies some problems and prospects of usage, but no significant effort has been made to identify the reasons of customers' not being satisfied with the technology (Siddiqi, 2011) or what factor(s) determine the online service quality and the satisfaction of customer.

E-Services are services or facilities which are provided to customers through online/web-site platform. So, E-Service quality is basically the difference between expectation and perceived performance of services to the customers or users by the respective website (Musiime & Ramadhan, 2011). E-service quality evaluation can lead to the improvement of enterprise effectiveness, attractiveness of services and competitiveness in the sector of virtual market towards enhancement of e-service quality (Mekovec & Kero, 2007). Customer satisfaction is now the topmost subject

for those businesses who are functioning in Electronic Commerce (EC) platform. Quality customer service will determine the survival or the failure of the business in future. Considering the ease of usage, convenience, cost effectiveness and on-going service facility; internet-based services are getting popularity against regular channel-based services where physical presence is mandatory. Till now, there have been very little understanding about the factors that affect customer satisfaction about internet-based services. (Khalifa & Liu, 2002).

Banks are lowering their operational cost, enhancing their revenues and creating automated process through the E-banking, which is more convenient for the customers (Tan & Teo, 2000). Almost all types of banking transactions can be done at a click of mouse through the internet banking except cash withdrawal (DeYoung, 2001) and banks use this platform as it is one of the cheapest ways of delivering banking products and services (Pikkarainen et al., 2004). So, through E-banking, information collection and management of transactions can be executed in an effective and efficient way. In Bangladesh, some researches have tried to cover electronic commerce (Azam, 2007), policy implications of E-Banking (Rahman, 2009), computer adoption (Azam, 2005), usage of Internet (Awal, 2004), online banking (Bakta et al., 2007) and customer satisfaction on E-banking (Nupur, 2010).

The objective of the study is to identify the impact of Online Service Quality (E-ServQual) on the satisfaction of customers using internet-based banking in Bangladesh. It will try to identify the critical factors of online service quality in the retail banking sector of Bangladesh. Moreover, this study intends to find out the interrelations between Online Service Quality and Customer Satisfaction in Internet Banking.

2.0 Literature Review

2.1 Online service quality

It is evident that online service (e-service) is the internet-based service which is diverse from traditional way of delivering services. With the development of information technology, online services have changed the pattern of people's daily life, especially in terms of communication between consumers and service providers. It has made customized and requirement-based service offering possible. Oliveria et al. (2002) suggests that by offering quality e-services to customers, companies can attain competitive competencies. Among attributes (costless, feasible, and easier) of online services in comparison with traditional networks, service quality is the crucial determinant for successful online services (Santos, 2003). So, service quality is increasingly recognized as a significant aspect of online services which has robust influence on the satisfaction of customers and the performance of companies (Li and Suomi, 2009).

2.2 Proposed Research Model

To address the E-service quality issue, the traditional or regular service quality dimensions won't be a standard here as it requires a new and exclusive service delivery process. The proposed research model emerged from an extensive literature review. Zeithaml, Parasuraman & Malhotra (2005) developed E-ServQual which is used in electronic service quality measurement and they identified seven dimensions—efficiency, reliability, responsiveness, fulfillment, privacy, recovery and website design. Nine Service Quality (ServQual) dimensions of internet banking were identified by Saha and Zhao (2005), those were reliability, efficiency, fulfillment, responsiveness, privacy, communication, personalization, technology update and logistic/technical paraphernalia. Kaynama and Black (2000) suggested seven dimensions of Online ServQual while fifteen dimensions of Online ServQual were proposed by Madu and Madu (2002). Based on these models, this study has selected six dimensions of Online Service Quality (E-ServQual) which are Reliability, Responsiveness, Efficiency, Fulfillment, Security/Privacy and Website Design.

2.3 Reliability

Reliability involves trustworthiness and accuracy in performance. So, it means that the firm is going to provide what it assures to customers, specifically activities like billing accurately, maintaining record properly and providing service within designated time line (Saha & Zhao, 2005). Dabholkar et al. (2002) also considered reliability as the most vital feature in assessment of service quality by the customers. Zeithaml (2000) emphasized on reliability when customers adopt advanced technology because technological malfunctioning is a common risk that customers experience. Parasuraman et al. (1988) also considered reliability of the service as a significant factor of service quality. The hypothesis for reliability is as follows-

H₀₁: Reliability of E-ServQual has no significant impact on customer satisfaction

H_{a1}: Reliability of E-ServQual has significant impact on customer satisfaction

2.4 Responsiveness

Responsiveness is the ability to provide accurate information to customers, readiness to help customers when a problem arises and delivery of quick service by the e-retailers (Zeithaml, et al. 2002; Saha & Zhao, 2005). It concerns with the readiness or eagerness of employees in service delivery. The overall time of service actions like timely delivery or immediately getting back to customer requests indicate responsiveness (Zeithaml, 2000). Customers are particularly attracted in quick service in delivery. In addition, most research findings emphasized that customers exaggerate the handling time of a service (Peppers and Rogers, 1993). Even Lovelock, et al (2001) also agreed that delay in service delivery has adverse impact

on the inclusive perceptions of individuals in service quality. It was also found that while using electronic banking and shopping, time savings is important to consumer (Yousafzai, et al. 2003). The hypothesis developed for Responsiveness is as follows-

H₀₂: Responsiveness of E-ServQual has no significant impact on customer satisfaction

H_{a2}: Responsiveness of E-ServQual has significant impact on customer satisfaction

2.5 Efficiency

Efficiency level is enriched when customers can reach the website easily and find out their desired products and information in simplest way of online surfing (Zeithaml, et al. 2002 and Saha and Zhao, 2005). Websites should be simple in nature, properly designed and contain minimum range of information. The hypothesis developed for Efficiency is-

H₀₃: Efficiency of E-ServQual has no significant impact on customer satisfaction

H_{a3}: Efficiency of E-ServQual has significant impact on customer satisfaction

2.6 Security/Privacy

Security concern is a strong and frequent issue to individuals behind the reluctance of adopting internet banking. O'Connell (1996) also indicated that the slow growth of internet banking of a country's banking system is due to the security and privacy issues. So, in order to improve the acceptance rate of online banking, it is essential to address the security issues (Mukherjee and Nath, 2003; Laforet and Li, 2005). It was found in research that majority of people have very shallow knowledge and understanding of online banking security risk although existence of risk is known to them. According to Gerrard et al. (2006), in future one of the most important challenge to an individual or customer of a bank is the fear associated with high risk in adoption of web-based banking and financial transactions. A further finding indicate that people are confident about the fact that their funds will be protected by banks but their general confidence on online banking technology is very weak. The following hypothesis is developed for Security-

H₀₄: Security/Privacy of E-ServQual has no significant impact on customer satisfaction

H_{a4}: Security/Privacy of E-ServQual has significant impact on customer satisfaction

2.7 Website Design

Website design encompasses visual appeal of web page with customized exploration links, quick access, and ease of error alteration (Liu and Arnett, 2000).

Usability, refers to the ease by which users can easily access required information and navigate the web portal, is considered to be one of the significant factors that affect user satisfaction (Gant and Gant, 2002). Well-designed websites have user friendly and consistent interfaces which helps individuals easily use it (Gant and Gant, 2002). So, the website design should be in a way where customers can find information easily, use the most commonly used search engine and can move fast through the pages easily. The hypothesis for Website design is as follows-

H_{0s}: Website design of E-ServQual has no significant impact on customer satisfaction

H_{as}: Website design of E-ServQual has significant impact on customer satisfaction

3.0 Research Methodology

In order to obtain information regarding customer satisfaction for online banking, survey method was utilized. To test the hypothesis, formal research design has been selected so that the association among different variables can be shown in a structured and precise way.

There are five explanatory variables, one moderating variable, and one dependent variable in the research framework. Explanatory study is used to test the hypothesis' so that the variation in the independent variables can capture the variation in the dependent variable. The explanatory research is the examination of cause-and-effect relationships. It not only indicates the relationships between variables but also specifies the direction of the relationship.

According to Cooper and Schindler (2003), in non-probability convenience sampling, samples might be unrestricted, economical, and easiest to conduct. Convenience sampling was used in the study due to the time constraint. When respondents appeared in different bank branches, they were asked if they were using internet banking services. Upon receiving affirmative feedback, they were handed over the questionnaire to be filled on the spot. If the respondents were unable to fill the questionnaire in the branches, they were emailed the same so that they could fill it up at their convenience. 350 respondents were selected as the sample size through the process conducted. The survey questionnaire was randomly distributed among the target respondents. Those who were eligible to hold a savings and/or current account in a retail bank and used online banking services were the population of the study.

The data collection process must be disseminated throughout a vast population in order to create a realistic output. The survey questionnaire was created to be applicable to a diverse population with respondents drawn from broader categories ranging from different races, gender, education backgrounds, age and professions. The survey was conducted via approaching the respondents physically at several

branches of banks that are providing internet banking service. The data collection was done from the month of December 2019 to February 2020.

The questionnaire was organized into two parts for the ease of comprehension and reading. The first part of the questionnaire considered the demographic aspects of the respondents. For the ease of use, multiple choice options were in place in the design of the questions. Both the independent and dependent variables related questions were in the second part of the questionnaire. Likert Based questionnaire ranging from (1 to 5) which is strongly disagree to strongly agree continuum was used for rating each item. In this study, 325 questionnaires were collected out of 350 respondents which were used for the purpose of analysis. The response rate came in at around 93%. However, 25 questionnaires from the sample were rejected as they were incomplete. The questionnaire was surveyed physically in branches of several banks providing internet banking service and via e-mail. The objective was to gather the thoughts of the respondents regarding the Online Service Quality (E-ServQual) in retail banks located in Dhaka city. All collected data were fed into the Statistical Package for the Social Sciences (SPSS) software for analysis.

4.0 Results

4.1 Descriptive Statistics

The analysis was conducted on a total of 325 respondents. From table 1, it can be seen that approximately 87.4% respondents were male and the rest 12.6% were female. People from different age groups participated in the survey. Around 41.7% of respondents (136 people) fell within the age bracket of 21 to 35 years. 46.6% (152 participants) were between 36 to 45 years while 9.5% (31 respondents) were within the age group of 46 to 55 years. There were 6 respondents who were above 55 years.

Table 1: Demographic information

Age	Frequency	Percentage
21-35	136	41.7
36-45	152	46.6
46-55	31	9.5
Over 55	6	1.8
Total	325	100.0
Gender		
Male	285	87.4
Female	40	12.6
Total	325	100.0

4.2 Reliability Analysis

In order to measure internal consistency, Cronbach's Alpha of multiple items were calculated. A reliability coefficient of 0.7 is considered to be acceptable while a score above 0.8 is good. A reliability coefficient of more than 0.9 is excellent (George, 2003). From Table 2, it can be seen that the Cronbach Alpha value is within good range for all the variables except for web design which is 0.763 falling within the acceptable range.

Table 2: Reliability analysis

Dimensions	Items	Cronbach's α
Reliability	5	0.875
Responsiveness	5	0.835
Security/Privacy	5	0.856
Website design	3	0.763
Efficiency	5	0.878
Customer satisfaction	3	0.884

4.3 Regression Analysis

It is suggested by statisticians that before applying regression analysis, a researcher should check for multicollinearity among explanatory variables. An implicit assumption of Ordinary Least Squares (OLS) estimation is that the explanatory variables should be orthogonal to each other (Brooks, 2014). Correlation matrix between the individual regressor is a useful tool to investigate the presence of multicollinearity. Pair wise correlation between two independent variables higher than 0.8 denotes serious multicollinearity problem (Gujarati and Porter, 2009). One way to remove this problem is dropping highly correlated variables. Another approach to diagnose for multicollinearity is using Variance Inflation Factor (VIF). If average variance inflation factor of a variable is higher than 10, it is highly collinear (Gujarati and Porter, 1999). After conducting necessary tests, it can be concluded that this study is free from multicollinearity as the VIF is less than 10 for all variables.

One major assumption of Classical Linear Regression Model (CLRM) is that the error terms are uncorrelated with each other. Correlated error terms cause the problem of Autocorrelation (Brooks, 2014). However, to check if the data set is serially correlated or not, Durbin- Watson (DW) statistics was used. From table 4, it can be seen that, the DW statistics is 1.868. Thus, it can be concluded that the model used in this study is free from the problem of autocorrelation.

$$Y = \alpha + \beta_1 (\text{Reliability}) + \beta_2 (\text{Responsiveness}) + \beta_3 (\text{Security/Privacy}) + \beta_4 (\text{Website Design}) + \beta_5 (\text{Efficiency})$$

Here Y is the dependent variable which is Customer Satisfaction, and α , is the constant term.

Table 3 summarizes the results of multiple regression analysis. It can be seen that the combination of all the proposed variables of E-ServQual caused 79.3% effect on Customer Satisfaction. R^2 value of 0.793 indicates a strong effect of all five explanatory variables on customer satisfaction. All the variables are found to have significant impact on the dependent variable at 5% level of significance, thus rejecting H_{01} , H_{02} , H_{03} , H_{04} , and H_{05} . By looking at the beta value it can be observed that Efficiency factor is most influential for Customer Satisfaction with 39.5% effect whereas Responsiveness, Reliability, Security/Privacy, and Website Design stands for 11.4%, 10%, 27.7%, and 12.4% respectively. So, all the explanatory variables have a positive and significant impact on the dependent variable Customer Satisfaction.

Table 3: Multiple Regression analysis results

	Unstandardized Coefficients		Standardized Coefficients	t-Value	Significance	VIF
	B	SE	β			
Reliability	0.134	0.048	0.114	2.820	0.005**	2.533
Responsiveness	0.126	0.056	0.100	2.258	0.025**	3.010
Security/Privacy	0.382	0.057	0.277	6.722	0.000**	2.617
Website Design	0.135	0.042	0.124	3.207	0.001**	2.303
Efficiency	0.430	0.048	0.395	8.894	0.000**	3.038
Intercept (Constant)	0.217					
R^2	0.793					
Adjusted R^2	0.789					
Durbin-Watson	1.868					
Note: **Significant at 5 percent level						

The table represents the multiple regression analysis results. All the variables are found to be significant. The presence of multicollinearity is checked by Variance Inflation Factor (VIF). The value of R^2 and Adjusted R^2 refers to the strong explanatory power of the model used while the DW statistics indicate that the model is free from autocorrelation.

According to Hoaglin & Welsch (1978), Analysis of Variance (ANOVA) is a tool to measure the overall model significance. From Table 4 it can be seen that the P value is less than 0.05 implying that the model is significant.

Table 4: Analysis of Variance (ANNOVA) results

Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Regression	92.871	5	18.574		
Residual	24.282	319	0.076	244.003	0.000**
Total	117.154	324			

5.0 Conclusion

Internet banking is a cutting-edge banking system which offers enormous potential in providing new avenue growth for existing banks and financial institutions in Bangladesh. When it comes to delivering online banking services, managers from various institutions should focus more on the aspects that determine service quality. The higher the service quality, the better the customer satisfaction. Now-a-days customers are becoming increasingly accustomed to the quick and convenient internet banking system. The goal of this study was to identify the association between service quality and customer satisfaction on online banking.

This study tried to predict the relationship between service quality and customer satisfaction among internet banking customers in Dhaka, Bangladesh. Based on relevant studies and theories, a questionnaire survey was undertaken. A rigorous analysis was conducted from the data collected and the findings support that the dimensions in E-ServQual model has significant effect on customer satisfaction. So, both traditional and non-traditional banks should more focus on determinants of E-ServQual to guarantee the customer satisfaction. From the study we found strong effect of five variables (Reliability, Responsiveness, Security/Privacy, Website Design and Efficiency on customer satisfaction. Among them Efficiency in the most influential than other variables. So, banks should be more cautious about their efficiency level of service. And this might be developed by giving proper training to the employees and giving much investment in research and development for providing new and advance solutions.

World is moving towards digital banking solutions where branchless banking is introduced in many countries. Banks major costs are related to establishment and management of branches. So, digital banking can be a good solution to the banks' management to ensure cost effective solution along with strong customer satisfaction. Internet banking provides banks with the option to customize their service while also establishing a profitable customer relationship.

Future research can focus on a variety of extensions of the current study. The Online Service Quality dimensions utilized in this study may be verified in future research too. Also, there is scope for more research into the elements of Online Service Quality of internet banking.

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DETERMINANTS OF EMPLOYEE PRODUCTIVITY IN PUBLIC SECTOR ORGANIZATIONS: AN EMPIRICAL STUDY.

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Abstract

Employee productivity is the engine to achieve a firm's goals. Compromising with productivity components generates both short-term and long-term challenges. Most of the previous studies investigated employee productivity in a different setting like the private sector, firm's performance but the present study attempted on public sector firms. A non-probabilistic judgmental purposive sampling technique was applied to select respondent from public sector organizations such as manufacturing, services and others. There were 350 respondents as sample and a self-administered pretested questionnaire was employed to collect primary data. The instrument adapted from research and internal consistency was measured by Cronbach's Alpha (total=.82) and data were analyzed through factor analysis. One of the impressive outcomes of the study is that seven factors namely technology facility, managerial cooperation, autonomy, job satisfaction, team collaboration, training, and performance management process significantly affect employee productivity and organizational communication, top management support are revealed insignificant. The result of the study will be a worthy reference for the professional leaders, researchers, policy makers and practitioners. Finally, the future directions and implication are discussed.

Keywords: Employee Productivity, Factors, Public sector, Bangladesh.

1. Introduction

Employee productivity is the engine of the success of any organization. It forms the total value and survival of the firms. The productivity delineated the extent of efforts rendered by the individual in a team or single set of responses. Due to the growing importance of this prime resources, it has drawn enormous attention as the central focus of the organizations. Relevantly the productivity fuelled the firm's growth and winning competitive advantage in industries. As result employee productivity and its accelerating factors are become a topmost priority in modern days business firms (Rubel & Kee, 2013; Thapa et al., 2017). Empirical investigations in many settings have revealed that there are multiple issues lies with employee output. And, most of them related to the people work behaviour (Biswas & Bhatnagar, 2013; Taboli, 2013). Notably, the employee productivity is not merely concentrated to individual performance level rather it constitutes the aggregate productivity of the whole team or department that move forward firm's total

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performance. To this end, employee productivity is the heart of the firms that warrants a strong and sustainable fit. For this reason, previous scholars attested to the need for employee productivity measurement and set forth future strategies of the firms (Vanderslice et al., 1987). The human resource management (HRM) studies came in common consensus that there are many factors that stimulate the productivity of professionals such as job satisfaction, engagement, technology, leadership support, organizational commitment (Biswas & Bhatnagar, 2013; Taboli, 2013); motivation, ability, and opportunity to participate in decision making (Nerdinger & Sonnentag, 2005); a congenial workplace environment (Francis & Santhosh, 2016); a sense of job satisfaction that makes it more efficient (Crossman & Abou-Zaki, 2003) and uncontrol of those may create huge noise and disruptions like un-stabilizing firms retention and growth. On different notes, a productive culture changes the employee mind-set, engage them with firms visions and make them highly adaptive drives towards accepting every new challenges in the job (Yuan & Woodman, 2010). The public sector organizations are the key driver of governmental system. At present there are 150491.3 million employees in public sectors of Bangladesh (Statistics and Research Cell, 2021). The employees are serving in different offices of public sector like ministry, corporation, autonomous bodies etc. like every other economy of the globe, the public sector organizations are highly dedicated to serve for securing national interest in Bangladesh. Essentially, the assessment of public-sector employee productivity is a must for some reasons like improving accountability for resource usage and aiding in equal distribution of public resources. For policy initiatives, it is important to improve public-sector performance. Moreover, research in this field is highly significant in order to unleash the areas of improvement in relevant sector in order to excel the spirit of success of the government.

Thus, academic research on employee productivity itself is a demand-driven field. Accordingly, the key problem addressed in the present enquiry is that if the employee's productivity declines then it will damage the organizational productivity and if the organizational productivity is declined, the national productivity will be adversely impacted. Additionally, the distinct novelties of the study are the populations, research instrument, measurement drivers, analytical tools, findings and implications. The result of the study will be able to recognize the factor affecting employee productivity that may help the government policymakers, and shed light on related problems of HRM practices.

2. Justification of the Study

Empirical findings in the context of developed and developing economies revealed that employees are at the heart of making the differences in an organization. The power making of these differences is the art of their work capacity, behaviours

and motivation. There might be state-of-art machines and processes but if employees are unproductive then everything is worthless. So, one of the key demands of the research is to underscore the importance of employee productivity and discover the factors persisting at the back. To the best of the author knowledge there is no such research conducted in this sector. Therefore, research on this theoretical domain is judicious to contribute in context of the public sector organizations of emerging economy like Bangladesh.

3. Literature Review and Hypothesis Development

3.1 Employee Productivity

Employee productivity has been used in a variety of ways keeping similar operational meaning. Previous authors, academic scholars, and researchers have synonymously applied in relevant research for example work performance (Khtatbeh et al., 2020); job outcome (Van Bogaert et al., 2013); workplace outcome (Wang, 2016)); job performance (Pilipiec, 2020); job output (Bastienier, 1970); task performance (Van Scotter et al., 2000) and so on. The empirical research has also shed insight on the importance, applicability, and factors of employee productivity to supplement terms. Similarly, past research has emphasized the importance of productivity in accelerating organizational performance. According to (Campbell, 1990) productivity is a certain behaviour of employees who really are exposed to performance. The author responded by saying that the aggregate job behaviour of employees provides total value to an organization both directly and indirectly. And, the recognition of maximum productivity, job behaviour is improved with relevant and polite care. Employee productivity, in the same vein, is defined as the use of knowledge, skills, employee experiences, and abilities to complete the organization's designated mission (Haenisch, 2012). For this reason, the significant goal is to figure out how to make the best utilization of efforts, capacity, and resources and ensure the output of people's efforts, capacity at work. An organization should concentrate on the best method to use human productivity at work by creating, facilitating, and nurturing it (Beaton et al., 2009). As a result, assessing the major aspects of a job is a must for every firm in order to maximize staff productivity. Because it is a better way to control and improve if the productivity indicators are pre-defined against each task. Likewise, employee productivity is measured by a variety of factors, most of which are dependent on the nature of the job, its types, the nature of the role, and the structure of the organization's business (Saini & Budhwar, 2004). According to research, job descriptions and responsibilities must be fixed, work specifications must be created, the task must be communicated to the employee from the start, and performance progress must be monitored (Abdullah & Ilham, 2012; Raju & Banerjee, 2017). Several investigations proved the efficacy of productivity and performance. According to findings, a positional accuracy does not always have effective

productivity, and a productive result does not always come from absolute efficiency. As a result, set up a yardstick for the drive forward is a vital instrument for navigating staff performance (Bashook, 2005). But many researchers argued that there are two fundamental dimensions to productivity like qualitative and quantitative. One is qualitative, in which individuals are employed in service level jobs, and the other is quantitative, in which workers are involved in genuine production level jobs. Persons participating in qualitative forms of jobs have nebulous jobs that are not easily quantified, and have fewer job-specific measuring tools that are not always directly observable. The quantitative task, on the other hand, can be easily measured based on the mathematical and numbered output (Condrey, 1994; Joppe & Li, 2016). Thus, few studies have supported using timeliness, client services, commitment, confidence, accuracy, job quality, innovation, disciplines, responsibility, and the use of technology as a yardstick for evaluating employee productivity (Beaton et al., 2009; Biswas & Bhatnagar, 2013; Chen et al., 2020; Gitonga et al., 2019; Hall & Hursch, 1982; Oladejo & Oladejo, 2016; Owino, 2019; Palvalin et al., 2017; Pawirosumarto & Iriani, 2018; Raju & Banerjee, 2017; Shiva Prasad & Suar, 2010; Sofyani et al., 2018; Taboli, 2013; Lilian Chan, 2004; Haenisch, 2012; Joppe & Li, 2016). On the other employee job output is critical to every organization's success. That is why focusing on employee job behaviour and treating them outcome-based resources is one of the important manifestations of the latest HRM functions. Following this trend, employee productivity has been rigorously studied in the spirit of desired value proposition in a highly effective and efficient manner (Abdullah & Ilham, 2012; Alişkan, 2010).

3.2 Factors of Employee Productivity

Employees are like the pillar of the firms. If the pillar is not cemented in a strong foundation, it will collapse the performance structure. Employee productivity is like an engine that warrants regular checks and repairs to make it highly outcome-based. No system can operate without the hands of employees but to make it more efficient requires extra effort. In the previous press of thoughts, a number of influential factors like management support, teamwork, supervisory support, organizational culture, technological facilities, decision-making capacity, training, performance management system, job satisfaction, and communication were addressed. According to (Raju & Banerjee, 2017) job profiles are instruments for defining an employee's position that should be disclosed to regulate service quality. Many of the other researchers concurred in this regard, arguing that technology is a critical requirement in the twenty-first century. The study opined that technological adoption not only results in proactive normal work productivity, but also encourages individuals to become more creative and imaginative (Plewa et al., 2012). Teamwork is also a highly influential factor. Similarly, employees' self-commitment is an inner feeling that demonstrates

integrity and seriousness at work. It stems from their attitude of voluntary efforts. An extraordinary professional who is self-motivated become a source of inspiration for others in the team and workgroups. Generally, a self-motivated is gradually do beyond and willing to extend cordial services. Aside from that, an employee who believes in team collaborations can volunteer to help others while doing his job, as well as provide extra mileage for the team (AL-Sinawi et al., 2015; Diamantidis & Chatzoglou, 2019). Job satisfaction is one of the key actors in employee task outcomes. There is a common saying that a 'happy employee is a productive employee and vice versa. According to the old school of thoughts, employee satisfaction steered the extent of productivity (Akhter & Yasmin, 2017; Masum et al., 2016). However, thoughts still alive because companies with maximum satisfied employees have comparatively higher profits than rest (Ahmetoglu et al., 2015). Notably, every productive employee delivers a high extent client satisfaction and turnover (Ahmetoglu et al., 2015). The gradual lifting of the previous volume of productivity to the highest level make an employee from a generalist to specialist and a specialist to the topper in work quality. The exploration of training and development is a highly significant tool to leverage the present level of skills. Moreover, if employees are not adequately trained, they are more likely to make mistakes and errors, and ultimately productivity would be declined (Dhar, 2015; Oladejo & Oladejo, 2016). As a result, personnel should be equipped with job knowledge before starting the job. According to eminent HRM scholar (Armstrong, 2016), training is like a lift that upskills employees, and lack of training can make serious harm in technical professions. As training assists employees in improving their existing level of abilities, motivation to work, and demonstrates the paths of personal advancement in their careers, corporations should focus on improving their current skills to a higher quality that improves performance (Sharif, 2012). Furthermore, according to other studies, both financial and non-financial benefits improve employee productivity. Therefore, employees are offered various financial and non-financial advantages such as bonuses, merit-based pay, leave allowances, retirement benefits, housing and accommodation allowances, base pay, commissions, profit incentive sharing, and employee insurance which have an impact on their output level (Ghebregiorgis & Karsten, 2006). In pertinent to the line of thoughts, attitudinal characteristics revealed a significant actor. It includes first track career growth, workplace circumstances, employee intrinsic and extrinsic rewards of performance. Notably, this influences constitutes a positive attitude, emotional reactions, job feelings, working lives, engagement, job involvement, organizational commitment, and intention to stay (Aarabi et al., 2013; Haenisch, 2012). Supervisory patterns, the chances to engage in decision-making, and the attitude of mentoring highly influence employee task outcome. It reflects the magnitude of leadership practices that navigate employees. Leaders are the functional supervisors who act as a banyan tree to an employee to ensure duties and responsibilities. They facilitate

rather control. In this spirit traditional research advocated autonomy like managing people, giving them control, and permitting them to participate in decision-making is a strong driver of performance (Islam et al., 2018; Vanderslice et al., 1987). In support of that notion, evidence in Bangladesh has witnessed to the value of employee engagement, allowing them to participate in decision-making, acknowledging their viewpoints, and proper supervision, all of which help to boost employee productivity in the appropriate path (Mohammad, 2017; Rahman, 2015). Based on above discussion and the linkage between employee productivity with factors, the following hypothesizes are formulated:

- H₁: Job satisfaction has positive effect on employee productivity in public sector.*
- H₂: Technology facility has positive effect on employee productivity in public sector.*
- H₃: Managerial cooperation has positive effect on employee productivity in public sector.*
- H₄: Autonomy has positive effect on employee productivity in public sector.*
- H₅: Top management support has positive effect on employee productivity in public sector.*
- H₆: Team collaboration has positive effect on employee productivity in public sector.*
- H₇: Training has positive effect on employee productivity in public sector.*
- H₈: Communication has positive effect on employee productivity in public sector.*
- H₉: Performance Management Process has positive effect on employee productivity in public sector.*

4. Objectives of The Study

The core objective of the research is to determine the factors influence employee productivity in public sector organizations.

4.1 Specific Objectives

- ✓ To determine the effect of various factors on employee productivity in public sectors.
- ✓ To find out the link between performance-related factors and employee productivity.

5. Conceptual Framework

The lifeblood of organizational productivity is the productivity of its people. Employee productivity is a best business practice if it is nurtured by the firms. Simultaneously people can mount their work creativity and make it highly effective.

For this reason, firm's role is a critical driver to extract the maximum level of output. It's a two-way relationship. The social exchange theory (SET) stands to explain these two ways. Where one is employee and other is the employer. According to the theory, people in firms work as an interchange of behaviour between the organization and the person (Homans, 1961). It established a link between human behaviour at work and a linearity of performance and the organization's behaviour (Zafirovski, 2005). Employees exchange services through their dedication, hard effort, commitment, quality of service, and absolute motivation to the job. The employer, on the other hand, facilitates the exchanges via supervision, the workplace, management support, benefits, and acknowledgements. According to the theory's analyst (Blau, 2017), every self-initiated performance effort is the employee's own creation, resulting from organizational behaviours. The two-factor theory developed by (Herzberg et al., 1959) states the organizational motivators and maintenance factors of an employee. Later on, analyst expanded the elements of motivation but argued the role of the firms. So, the exchange-motivation layer is the life line of employee productivity. In the present research the framework has undergone with the guideline of the two theories. If the productivity is one side of the equation, and motivation is the other. One is dependant to other. Thus, the framework attempted to explore the exchange-motivation elements of employee productivity.

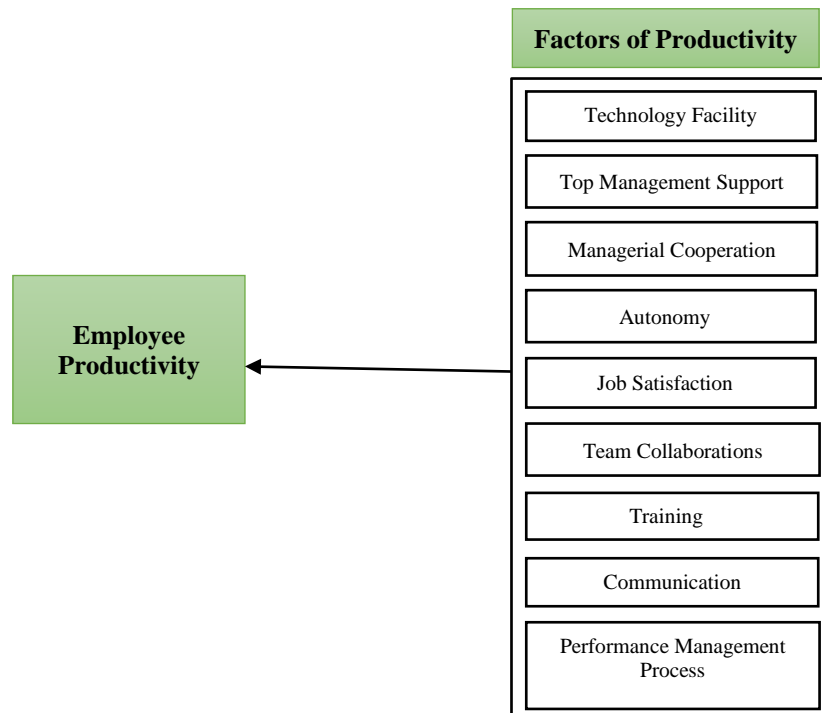


Figure 1: Conceptual framework for the research.

6. Research Methodology

Research design, sample size, sampling technique, data collection processes, research instrument, and data analysis techniques are all included in the research methodology section.

6.1 Research Design

This is a quantitative study based on primary data. It attempted to determine the effective factors of employee productivity in public sector. The approaches of the models and underlined theories were affirmed to the existing literature in the study. The methodology was designed in order to fulfill the objectives. Previous researcher (Cavana et al., 2001) advocated that this approach and design can fulfill to get a reliable outcome. To collect primary data from the selected respondent, the self-administered structured questionnaire was used. Secondary data were collected from research paper, books, publications, library, e-journal for literature review, statistical values.

6.2 Sampling Frame, Sample Size and Sampling Techniques

Sampling frame consist of all of the population units from which the sample will be obtained (Cooper, & Schindler, 2011). The study was conducted on various public sector organizations of Bangladesh like manufacturing, services, engineering, testing and certifications based on Dhaka division. All the employees are the populations of the sector. The unit of analysis are the employees who working permanent and full time in selected sectors. The exact number of employees were not evident from valid sources. According to (Sekaran and Bougie, 2016) the non-probabilistic judgmental purposive sampling (JPS) technique is useful if there is no population list but the respondent should be main or key person, capable of providing the most accurate and relevant information (Cooper & Schindler, 2011; Zikmund et al. 2012). Similarly, (Malhorta and Das, 2015) suggested it is low cost, convenient for respondents, and time saving and (Asiamah., 2017) advocated that JPS can be used in case of the unlisted population and adequate for Asian countries. Thus, the study employed JPS techniques. In order to meet the inclusion criteria a minimum one-year services, officers and permanent employees were considered. Cochran's formula developed by (Cochran, 1977) suggested the minimum sample size of 384 for unknown or approximate large population. (Malhorta and Das, 2015) suggested a minimum 200 sample size for factor analysis. Thus, 400 respondents were communicated and finally a total of 350 respondents (N=350) were chosen and obtain a more authentic output and meet the research goals.

6.3 Research Instrument

The primary data were collected via a structured questionnaire. The structured questionnaire is made up of two sections. Section 1 consists of six items to explain the demographic profile of respondents and Section 2 includes the 31 items to define factors like job satisfaction, technology facility, managerial cooperation, autonomy, top management support, team collaborations, training, communications, and performance management process. Accordingly, four items to explain job satisfaction, four items to explain technology facility, three items to explain managerial cooperation, three items to define autonomy, four items to define top management support, four items for team collaborations, three items for training, three for explaining communication and remaining three for performance management process adapted from previous studies in the same field (AL-Sinawi et al., 2015; de Bruijn, 2002; Egessa, 2014; Haenisch, 2012; Hatry, 1978; Mutia & Sikalieh, 2014; Plewa et al., 2012; Salanova et al., 2005; Tsui et al., 1997). According to the guideline of previous validated researches, a minimum three items of each factor was accepted to define the construct (Tremblay et al., 2010). The items consistency is given in table 2. The questionnaire anchored on five-point Likert scales, such as strongly agree =5, strongly disagree =1. The past studies measured productivity and factors using self-rating and supervisor rating, and discovered a substantial association between self-rating and supervisor rating (Harris & Schaubroeck, 1988; Rubel & Kee, 2013, Williams & Anderson, 1991). The original wording of the items slightly modified like, the addition of 'I,' 'my organization,' 'training' 'public sector' etc were included in pursuance of this study.

6.4 Data Collection

The primary target was drop-off and pick-up (DOPU) approach to collect data via questionnaires. Due to COVID 19 outbreak, the hybrid methods like the online platform, google forms, email were applied (Lee et al., 2021). Previous research has found that the DOPU approach helps respondents to finish on time and online platform can also reduce the time with less prejudice (Qader & Zainuddin, 2011; Rubel et al., 2017; Lee et al., 2021). The respondents in this study were the employees themselves. The primary data were collected from fourteen government organizations namely (manufacturing=40%, testing and certification=20%, engineering=15%, others=25%). Initially 400 questionnaires were distributed finally 350 questionnaires accepted for the study. The response rate in 75% which is sufficient for conducting the research (Ghosh et al., 2020). The data collected for the study for a period of six months (December 2020 to May 2021).

6.5 Data Analysis Techniques & Measurement of Validity and Reliability

The information was converted to data through tabulation and classification. The main data about productivity were analysed using factor analysis. In addition, the frequency distribution was used to examine the demographic profile. Validity and reliability are key tools for guiding research in the appropriate direction, determining the acceptable level of consistency, and accepting measurable items. The Cronbach's alpha was used to verify the internal consistency of the data. The Cronbach's alpha greater than .70 indicates that elements are more internally consistent with the factor (Guilford, 1950; Nunnally, 1978). And the items loaded below .50 is rejected. Aside from that, the histogram is used to see if the variables were normally distributed. The content validity is to confirm that the selected measurement items rightly represent the binding domain of the study, and content validity assured by obtaining an opinion from one academicians from the university of Dhaka in the field of management and two expert views from human resources professional. Construct validity measures the degree of the scale representing the concept being measured, and in this research, construct validity tested by statistical interpretation of correlation. The pilot study conducted among 50 employees and the data taken from all organizations at one point of time.

7. Data Analysis and Interpretation

Data analysis includes demographic statistics, reliability test, factor analysis & hypothesis test.

7.1 Demographic Statistics

Demographic profile of respondents is shown below:

Characteristics		Percent
Gender	Male	74%
	Female	26%
Education	MPhil/ PhD	3.5%
	Post-Graduation	55%
	Graduation	27.5%
	HSC/SSC/Equivalent	14%
Age	18-25	5.5%
	26-35	41.5%
	36-45	31%
	46-55	13%
	Greater than 55	9%

Experience	1 to 5 years	35.6%
	6 to 10 years	11%
	11 to 15 years	18.5%
	16 to 20 years	13.4%
	More than 20 Years	21.5%
Nature of employment	Permanent	88%
	Others: temporary/daily	12%
Types of organizations	Manufacturing firms	40%
	Testing and Certification firms	20%
	Engineering firms	15%
	Other services firms	25%

Table 1: Demographic characteristics of respondents (n=350).

7.2 Reliability Test

The reliability test to determine internal consistency is shown in the section below.

Factors	No. of Items	Cronbach's Alpha	Result
Job satisfaction	4	.93	Accepted
Technology Facility	4	.98	Accepted
Managerial Cooperation	3	.99	Accepted
Autonomy	3	.93	Accepted
Top Management Support	4	.92	Accepted
Team Collaborations	4	.92	Accepted
Training	3	.98	Accepted
Communications	3	.92	Accepted
Performance Management Process	3	.87	Accepted
Sum of all factors	31	.82	Accepted

Table 2: Reliability Test for internal consistency of items.

Cronbach's coefficient (α) varied from 0.87 to 0.99 for each investigation dimension (usually 0.5 and higher is acceptable), indicating the internal consistency of each dimension (factor) of employees' productivity (Cronbach, 1951; Malhotra & Dash, 2015). In addition, the Cronbach's coefficient (α) for all 31 items is .82. Cronbach's alpha score in this experiment was larger than 0.70, indicating that the survey utilized in this research had good internal reliability (Table 2).

7.3 Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.812
Bartlett's Test of Sphericity	Approx. Chi-Square	12202.836
	Df	465
	Sig.	0.000

Table 3: KMO and Bartlett's test

To ensure that the data was suitable for factor analysis, Bartlett's test of sphericity has been used (Bartlett, 1950). According to Bartlett's Test of Sphericity, the estimated chi-square value with 47 percent degree of freedom is 12202.83, and the significance level (.000) is less than 0.5. This finding demonstrates that a variety of factors have an impact on employee productivity in the public sector. And, the sampling adequacy was examined by the Kaiser-Meyer-Olkin (KMO) test at 0.81, which is higher than .05.

7.3.1 Decision on Total Variance of Factors

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.643	37.557	37.557	11.643	37.557	37.557	5.391	17.392	17.392
2	4.165	13.436	50.992	4.165	13.436	50.992	4.776	15.407	32.798
3	3.463	11.172	62.165	3.463	11.172	62.165	4.015	12.952	45.750
4	2.772	8.941	71.106	2.772	8.941	71.106	3.818	12.317	58.067
5	2.071	6.682	77.788	2.071	6.682	77.788	3.152	10.167	68.234
6	1.586	5.117	82.905	1.586	5.117	82.905	2.887	9.313	77.547
7	1.170	3.775	86.680	1.170	3.775	86.680	2.831	9.134	86.680
8	.814	2.627	89.307						
9	.784	2.530	91.838						
10	.558	1.800	93.638						
11	.328	1.058	94.696						
12	.271	.873	95.569						
13	.204	.659	96.228						
14	.180	.581	96.809						
15	.155	.499	97.308						

16	.145	.468	97.775						
17	.123	.398	98.174						
18	.119	.384	98.558						
19	.090	.291	98.849						
20	.085	.274	99.122						
21	.070	.226	99.349						
22	.051	.164	99.513						
23	.045	.147	99.660						
24	.032	.102	99.762						
25	.025	.081	99.842						
26	.023	.073	99.915						
27	.016	.051	99.966						
28	.009	.029	99.995						
29	.001	.005	100.000						
30	7.046E-18	2.273E-17	100.000						
31	-8.035E-19	-2.592E-18	100.000						
Extraction Method: Principal Component Analysis.									

Table 4: Decision on the extraction of actual loaded factors

The total variance method extracted from principal component analysis was used to find a number of factors that influence employee productivity in public sector organizations. Initial Eigenvalues must be greater than one (1) and the cumulative percentage of rotation sums of squared loadings must be greater than 60%. The cumulative percentage of rotation sums of squared loading is 86.68 percent, according to the total variance table, and initial eigenvalues revealed seven (7) factors out of nine (9) dimensions.

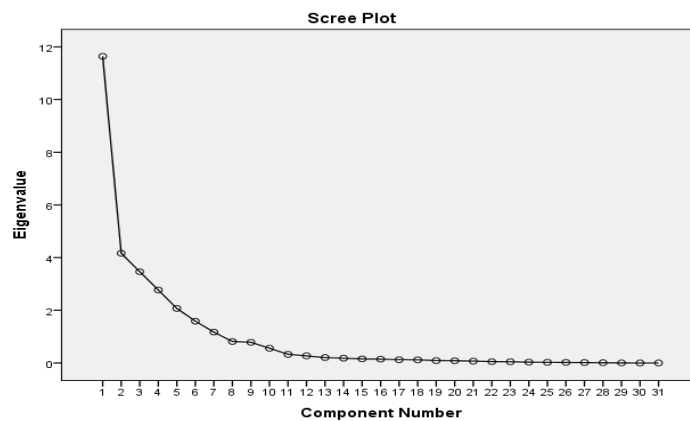
**Chart 1: Scree plot for indication of factors.**

Table 4 and Scree plot Chart 1 illustrate the choice on the retrieved actual factors affecting employee productivity. Table 4 shows that there are a total of 7 components herein referred to as factors that have a substantial relationship with the employee productivity. The seven elements explained 86.68 percent of the variance, which means that out of a total of 100 percent, all seven factors can explain 86.68 percent of the influence on employees' productivity in public sector organizations. According to (Malhotra & Dash, 2015), two elements, top management support and communication, were not taken into account in the final results due to low loading (less than .50) and cross-loading with various factors.

Moreover, Table 4 and Chart 1 also demonstrate the accepted factors based on eigenvalue (EV) such as technology facility (Factor #1: EV= 5.391), performance management process (Factor #2, EV=4.776), team collaborations (Factor #3: EV=4.015), job satisfaction (Factor #4: EV=3.818), managerial cooperation (Factor #5: EV=3.152), training (Factor #6: EV=2.887), and autonomy (Factor #7: EV=2.831).

7.3.2 Decision on Hypothesis

Rotated Component Matrix ^a							
	Component						
	1	2	3	4	5	6	7
TC ₁	.227	.030	.944	.106	.031	.057	-.029
TC ₂	.117	.147	.932	.079	-.005	.044	-.064
TC ₃	.194	.136	.863	.190	.058	-.001	.001
TC ₄	.307	.093	.880	.088	-.027	.069	-.030
TF ₁	.880	.255	.199	.160	-.103	-.189	-.096
TF ₂	.892	.255	.190	.144	-.077	-.169	-.088
TF ₃	.883	.251	.198	.160	-.099	-.190	-.091
TF ₄	.896	.262	.186	.132	-.063	-.152	-.092
MC ₁	-.058	.095	.018	.014	.971	.155	.069
MC ₂	-.058	.095	.018	.014	.891	.155	.069
MC ₃	-.058	.095	.018	.014	.701	.155	.069
TR ₁	.464	.362	.301	.423	.193	.909	-.124
TR ₂	.570	.392	.354	.366	.193	.796	-.085
TR ₃	.540	.399	.291	.386	.195	.893	-.096
TMS ₁	-.189	-.078	-.057	-.216	-.115	.065	.049
TMS ₂	-.340	-.041	-.049	-.220	-.056	.011	.027
TMS ₃	-.258	-.295	-.057	-.223	-.109	.036	.040

TMS ₄	-.190	-.373	-.086	-.187	-.155	.097	.041
AU ₁	-.122	-.105	-.039	-.009	.049	-.127	.631
AU ₂	-.067	-.103	-.022	-.014	.081	-.091	.915
AU ₃	-.170	-.046	-.048	.027	.056	.016	.826
PMP ₁	.604	.538	.254	.116	-.162	.056	-.253
PMP ₂	.420	.531	.261	-.030	-.081	.243	-.191
PMP ₃	.388	.477	.271	.016	-.035	.094	-.217
JS ₁	.298	.209	.110	.866	-.018	-.222	.042
JS ₂	.197	.207	.109	.868	-.019	-.166	.018
JS ₃	.090	.145	.101	.840	.018	.142	.016
JS ₄	.047	.137	.101	.879	.012	-.116	-.034
COM ₁	-.105	-.021	.107	-.110	.147	.109	-.101
COM ₂	-.185	-.002	.017	-.060	.185	.096	-.121
COM ₃	-.149	-.045	.026	-.106	.139	.393	.001
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^a							
a. Rotation converged in 7 iterations.							

Table 5 (a): Rotated Component Matrix

Factor	Variable Items/Indicators	Items/Indicator Loading	% of Variance [Cumulative]	Eigen Value	Decision on hypothesis
Technology Facility	TF ₁	.880	17.392 (17.392)	5.391	Accepted
	TF ₂	.892			
	TF ₃	.883			
	TF ₄	.896			
Performance management Process	PMP ₁	.538	15.407 (32.798)	4.776	Accepted
	PMP ₂	.531			
	PMP ₃	.477			
Team Collaborations	TC ₁	.944	12.952 (45.750)	4.015	Accepted
	TC ₂	.932			
	TC ₃	.863			
	TC ₄	.880			
Job Satisfaction	JS ₁	.866	12.317 (58.067)	3.818	Accepted
	JS ₂	.868			
	JS ₃	.840			
	JS ₄	.879			

Managerial Cooperation	MC ₁	.971	10.167 (68.234)	3.152	Accepted
	MC ₂	.891			
	MC ₃	.701			
Training	TR ₁	.909	9.313 (77.547)	2.887	Accepted
	TR ₂	.796			
	TR ₃	.893			
Autonomy	AU ₁	.631	9.134 (86.680)	2.831	Accepted
	AU ₂	.915			
	AU ₃	.826			
Top Management Support	low loading (less than.50) & low Eigenvalue (less than 1): Table: 5 (a)				Rejected
Communication	low loading (less than.50) & low Eigenvalue is (less than 1): Table: 5 (a)				Rejected

Table 5 (b): Variance, Eigen Values & hypothesis test

- *H₁: Job satisfaction has positive effect on employee productivity in public sector. (Accepted)*

Job Satisfaction (JS), which accounted for 12.32 percent of the variance, was explained by four variables items (JS₁: I am pleased with the remuneration and benefits, JS₂: I obtain on-time promotion that boosts my output, JS₃: I am satisfied with my current job nature and service, JS₄: I am satisfy with my current performance). As it has an eigenvalue of 3.82 (more than one), Job Satisfaction is included as a factor affecting employee productivity in the public sector organizations. The factor loadings of the variables range from 0.84 to 0.87.

- *H₂: Technology facility has positive effect on employee productivity in public sector. (Accepted)*

The **Technology Facility (TF) Factor** accounted for 17.39 percent of the variance and is represented by four variables (TF₁: Have a very well-set IT system, TF₂: Regularly updates website that helps my productivity, TF₃: IT system leverage my productivity, TF₄: I can easily check the e-filing system to monitor the progress of work). The variable factor loadings range from 0.88 to 0.89. The technology facility is considered as a factor impacting employee productivity at public sector because it has highest eigenvalue of 5.39.

- *H₃: Managerial Cooperation has positive effect on employee productivity in public sector. (Accepted)*

Four items represent the **Managerial Cooperation (MC) Factor**. (MC₁: At any time, openly communicate my difficulty with my supervisor.) MC₂: During my

yearly evaluation, my supervisor addresses my strengths and weaknesses, MC₃: My supervisor typically recognizes my outstanding services) which accounted for 10.17 of the variance. The variable factor loadings range from 0.70 to 0.97. The Managerial Cooperation is a factor that influences employee productivity since it has eigenvalue of 3.15.

- ***H₄: Autonomy has positive effect on employee productivity in public sector. (Accepted)***

Autonomy (AU) Factor, which accounted for 9.13 percent of the variance, is represented by three items (AU₁: I have autonomy to make relevant decisions by myself within my task, AU₂: I feel a lack of work autonomy that hinders my productivity, and AU₃: I can share my opinions and thoughts in my areas of job). The factor loadings of the variables ranged from 0.63 to 0.92. Because it has an eigenvalue of 2.83, Autonomy is a factor that influences the employee's productivity in the public sector.

- ***H₅: Top Management Support has positive effect on employee productivity in public sector. (Rejected)***

Top Management Support is represented by four items (TMS₁: My organizations provide fullest support to deliver the job, TMS₂: Top Management takes care of any problems and difficulty to perform my task, TMS₃: Have access to all resources to do productive work, TMS₄: Aware of the management policies and procedures to perform the services) of employee productivity. The factor loadings of the variables are less than 0.50 and eigenvalue is also lower than one. Therefore, the hypothesis of top management support has been rejected.

- ***H₆: Team Collaboration has positive effect on employee productivity in public sector. (Accepted)***

Four items (TC₁: We believe in working in a team spirit, TC₂: Team members are highly polite in performing productive work, TC₃: Team leaders listen, consult, and accept my views, TC₄: Team members are cooperative to each other) made up the **Team Collaboration Factor**, which accounted for 12.95 percent of the variance. The variable factor loadings ranged from 0.86 to 0.94. Because it has an eigenvalue of 4.02, Team Collaboration is included as a factor affecting employee productivity in public sector organization.

- ***H₇: Training has positive effect on employee productivity in public sector. (Accepted)***

Training Factor is made of three variables (T₁: My organization provides adequate number of internal trainings, T₂: My organization provides adequate number of external trainings, T₃: My organization provides adequate training for new

joiners) which accounted for 9.31% of the variance. The factor indicator loadings of the variables ranged from 0.79 to 0.90. Training is identified as a factor affecting employee productivity in public sector since it has the eigenvalue of 2.89.

- ***H₈: Communication has positive effect on employee productivity in public sector. (Rejected)***

Communication is represented by three items (COM₁: We have a very well communication system from top to bottom, COM₂: We have a very well communication system from bottom to top, COM₃: I feel the lack of communication system hampers my productivity). The hypothesis is rejected because the eigenvalue of communication is less than one and factor loadings of all individual variable is less than 0.50.

- ***H₉: Performance Management Process has positive effect on employee productivity in public sector. (Accepted)***

The Performance Management Process, which accounted for 15.41 percent of the variance, is made up of three variables (PMP₁: My organization justifies my productivity at the end of the year through departmental assessment, PMP₂: I have enough scope to achieve 100 percent target according to my APA, and PMP₃: I am penalized if I fail to meet the productivity expectations). The factor loadings of the variables ranged from 0.48 to 0.54. Because it has second highest eigenvalue of 4.78, Performance Management Process is highlighted as a factor affecting employee productivity in the public sector.

8. Discussion on Findings

Top management support and communication have been shown to have little effect on employee productivity in public sector organizations. Regarding top management support, this may happen due to the level and interactions. In the public sector, there are a pre-defined set of operational processes that have little interaction with top management on daily basis to perform productive work. More importantly, the routine functions required mid-level supervisory support, leadership styles, teamwork and so on. Similarly, previous findings also revealed that management support may not always significantly and directly contribute to employee performance rather may moderate the HRM practices (Diamantidis & Chatzoglou, 2019; Ismail et al., 2021). In the case of communication, there is a physical and verbal process. The electronic filing processes cascaded in the line of work within a specific timeline of performing the task. The other form of communication like digital communication is very rare except few very important matters. Besides the bureaucratic process of work mostly hamper the level of communications and distortions. Moreover, while rendering essential services to the stakeholder's communication gap between stakeholders-superiors-subordinates were evident. This

research has affirmed the findings of previously researched that transitional communication is not a significant factor (Eka & Anik, 2020). The remaining seven elements (technology facility, managerial cooperation, autonomy, job satisfaction, team collaboration, training, and performance management process) all have a significant impact on employee productivity in the public sector. "Technology facility" was ranked top among the seven factors by employees for their productivity, while "performance management process" was ranked second. Technology enhances efficiency in employee performance and productivity. "Team Collaboration" is the third most influential factor on employee productivity. "Job Satisfaction and Managerial Cooperation are the fourth & fifth impacting variables, respectively. "Training" and "Autonomy" are the remaining two crucial components in employee productivity in public sector organizations.

9. Conclusion and Future Directions

The objectives of the present research were to investigate factors influencing the employee productivity in government settings. The key outcome revealed that out of nine factors, the seven factors are significant. Two factors like communication and top management support are not significant determinant. The productivity level of employee is the key driver where many components to be considered. In context of public sector organizations of Bangladesh, the identified factors are relevant to initiate future action plan. As every organizations play a key role from their functional corner to achieve the vision of the government. So, it is highly important due the nature of works of the sectors and contribution to the growth of emerging economy of Bangladesh. Relevantly, the government organizations can be more successful if there is high concentration to the people and their productivity.

The weakness of the current research may address for future directions as well. Therefore, the number of respondents was little to represent the large populations that can be addressed. The factors employed in the research can be more such as career commitment, work engagement, quality, supervisory style etc. and the methodology like longitudinal study, ranking of factors can be addressed in future to validate the outcome. Moreover, the consequences of absence of employee productivity can also study in future. Finally, the management research in the public sector is still sparse that demand future research in wider scope.

10. Implications of the Research

One of the prime contributions of the research is to identify the factors of employee productivity for the public sector. The academic literature may be enriched by adopting the outcome of the research specifically the complete understanding of employee performance and demand. Every effort of the firms is to ensure their performance but setting the sequence and priority is a must and foremost. The same

strategy may not always be effective for different business nature for example service and manufacturing. The result of the research will be a strong source for the managers and the leaders. The managers may focus the particular factors in their related field of work, department and branches, make their employees motivated, effective and new scope to increase their productivity level. The need for HRM practices will be sped up if they are willing to maximize the performance target. As the public sector still has limited research, so the managers may initiate this according to the functional and business priority. People in the public sector may work for a long time but skill development may be focused less which can come forward. More importantly, the communications and top management support can be addressed more so that employees can at least understand the role of the management and the importance of communications.

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EMPIRICAL STUDY ON THE IMPACT OF NATIONAL GOVERNANCE INDICATORS AND MACRO-VARIABLES ON FDI: EVIDENCE OF BANGLADESH

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Abstract

This study attempts to investigate the impact of national governance indicators and macro variables of Bangladesh on its own FDI. Five different governance indicators and three macro variables have been used and yearly data from 1996 to 2019 (total 24 yearly observations) have been used to form two multivariate regression model. The first model concerned with impact of governance indicators on FDI and found that voice and accountability, and control of corruptions are statistically significant variables that exert strong influence on FDI of Bangladesh. The second model captures the joint impact of both governance indicators as well as macro variables on FDI. In this model voice and accountability, political stability, and wage rate index have found statistically significant relationship with FDI. From this study, it has been revealed that governance indicators are sensitive factors in determining the level of FDI in any low or middle-income country like Bangladesh along with the influence from macro variables.

Keywords: FDI, governance indicators, macro variables multivariate regression.

1.0 Introduction

Foreign direct investment (FDI) is documented as a powerful engine for economic growth and sustainable development for any economy especially the developing ones. Inward FDI to the middle and low-income countries has the evidence as an essential factor to the economic growth, foreign reserve, growth of capital formation and infrastructure etc. (Ahamad M. 2010). It enables capital-poor countries to build up physical capital, create employment opportunities, develop productive capacity, enhance skills of local labor through transfer of technology and technical as well as managerial and technical know-how, and help integrate the domestic economy with the global economy. The key role of Foreign Direct Investment (FDI) in the economic growth is that it generates more benefits for the host countries rather than just full filling the shortage of capital in that country, (Borensztein et al. 1998). It is well documented that FDI has a significant contribution to economic growth in any country especially for developing economies. FDI contributes to block the gap between savings and required level of investment (Sabir and Khan. 2018). Increased globalization has contributed to the importance of FDI worldwide and endogenous growth theories emphasizes that it is one of the

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prime factors of sustainable economic growth. It is also a source of technological transfer from developed countries to developing countries (Chenaf-Nicet and Rougier 2016). The relationship between indicators of national governance and economic performance has attracted responses from scholars, researchers, and policy makers for the last few decades (Sabir and Abbas 2019). Thomas (1073) gives importance to the economic factors like capital accumulation, innovations and per capita income are not the only factors that creates a visible difference in a country's sustainable development and growth; well-planned changes in national governance indicators are also imperative for those difference. Considering this argument, an attempt has been made to measure the impact of national governance indicators on the volume of FDI in Bangladesh. In addition, few macro variables have added in this study to obtain a more reasonable and valid result.

This study is organized into seven sections. The first section presents the overall background of the study; the second section describes the objectives of this study; the third section discusses about the basic concept of FDI and its related components; fourth section presents the review of relevant literatures; the fifth section focuses on the methodologies and tools applied in this study; sixth section presents the analysis of the data and findings of that analysis and finally seventh section presents the conclusion of this research.

2.0 Objectives of the Study

Rapid industrialization is an imperative issue for Bangladesh to ensuring the speed of its growth and development. Allocational inefficiency of savings and investment and low level of technology base hinder the expected level of industrialization process. Foreign aids and grants had been serving to bridge the gap. As a developing country, Bangladesh is in the process of advancing from being aid-dependent country into a trading country, therefore, FDI is considered as critical incentive to economic growth in this country (Rayhan, A. 2009). This study attempts to identify the impact of national governance indicators and macro variables of Bangladesh on the magnitude of its FDI. Here, the broad objectives of this study is to investigate the national governance indicators and macro variables that exhibits strong statistical influence over the level of FDI's in Bangladesh. Objectives that are more specific include the following:

1. Identifying the status and trend of FDI by both total amount as well as specific components.
2. Estimating the statistical relationship between selected national governance indicators and volume of FDI in Bangladesh.
3. Computing the combined effects of national governance indicators and macro variables on the level of FDI in Bangladesh.

4. Describing the economic justification of the relationship estimated in objective 2 and 3.

3.0 The Components and Trend of FDI in Bangladesh

The term Foreign Direct Investment (FDI) states that investment made to acquire a lasting interest in an organization operating in foreign locations, the investors' motive being to have an operational control in the management of the organization. In other words, FDI is an international financial flow with the intension of controlling or participating in the management of an organization in a foreign country. According to the survey report on Foreign Direct Investment (FDI) of Bangladesh Bank (July- December 2019), There are three different components of foreign direct investment. These components are:

- i. Equity Capital: Remittances received by the incorporated or unincorporated enterprises doing businesses in Bangladesh on account of equity participation in those by the non-resident direct investors. Equity capital includes Ordinary shares of stock, Revaluation & Capital Reserves, Share Money Deposits, and Other Reserves.
- ii. Reinvested Earnings: It is the amount of profit reserved for additional investment.
- iii. Intra-Company Loans: It includes short or long term borrowing and lending of funds between direct investors (parent enterprises) and affiliated enterprises. The traditional differences between short and long-term maturity based on the formal criterion of original maturity retained.

Figure 1: Growth Trend of FDI in Bangladesh

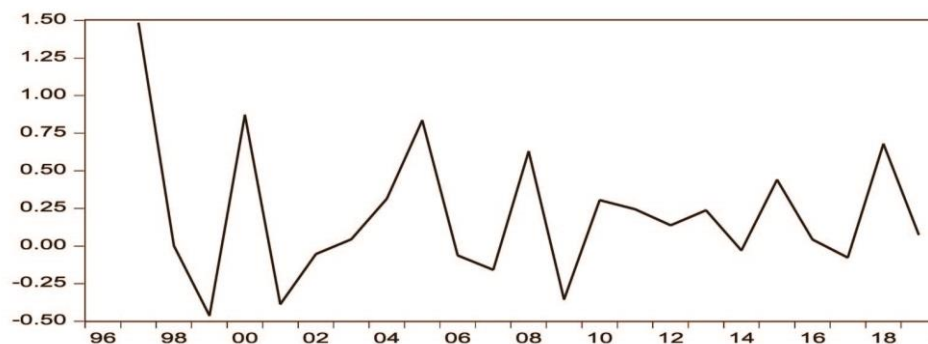
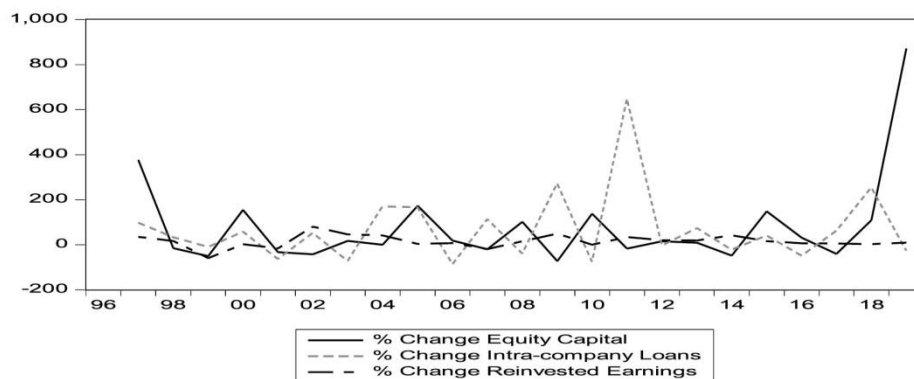


Figure: 1 depicts the growth trend of FDI in Bangladesh during the period from 1996 to 2019. In order to grab the maximum benefit of FDI, a country must do something for the positive and steady growth of FDI. Surprisingly, this graph shows

the opposite scenario. From 1996 to 2001 a sharp rise and fall takes place in FDI. Then a sharp rise is found up to 2004. After then between 2010 and 2014, a stable movement is observed. The sharp rise and fall in growth of FDI was found again from 2018 to 2019.

Figure: 2 presents the trend of the percentage growth of three different ingredients of FDI i.e. during the period from 1996 to 2019. This graph clearly shows that the equity capital growth is volatile between 1996 and 2002. After then a steady ups and down takes place in the following years. The highest level of growth fluctuation is observed in intracompany loans. But in the recent year, the growth of intra-company loans are decreasing. On the other hand, very negligible fluctuations are observed in growth of reinvestment earnings.

Figure 2: Percentage Growth of FDI Inflows by Components



4.0 Review of Literature

Foreign Direct Investment (FDI) is considered as an important device for economic development in any developing country (Aziz, Sarkar, and Mahmud. 2014). If the investing country is wealthier than the host country then capital will transmit to the host country (Zhao, 2003). It contributes to advancement of GDP; technology transfer; create employment generation, development of human resource, etc. It is also observed that FDI can play a significant role to reduce poverty of a developing country. There are good number of research study have carried out at the global level and domestic level to identify and determine the sensitive and influential macro factors of FDI in their respective economy. However, the study on the impact of national governance indicators on FDI is not very common. Few research studies have used the corruption level, political stability, freedom of expression etc. as the governance indicators of their respective countries and their research findings also vary from each other. Therefore, it is essential to examine the

influence of both national governance indicators and macro variables on the level of FDI in Bangladesh.

The empirical studies investigating the relationship between FDI and spread of corruption have mixed results. Bardhan (1997) states that the level of spread of corruption lessens bureaucracy, accelerates speed of investment, which results to quicker wealth accumulation. Bellos and Subasat (2011) found that a high corruption level is connected with the high level of FDI. This finding is in compliance with the efficient grease hypothesis which describe that corruption can improve efficiency and exhibit a positive impact on the level of investment. On the other hand, Woo (2010), Aparna and Kartikeya (2013), Alemu (2012) found that high corruption level prevents expected FDI inflows.

Egger P. and Winner H., (2006) analyses both the sign and development of the impact of corruption level on FDI. This study incorporate data set of 21 home country and 59 developed and less developed host countries between the period of 1983 and 1999. The author applied a panel data model that is known as knowledge-capital model of multinational activity. The findings reveals that there is negative relationship between corruption and FDI. The author also comments that corruption is an important weakness of FDI in developed economies but not in developing economies.

Mahmood (2018) has examined the macroeconomic determinants of FDI inflows of Bangladesh during the period from 1975 to 2015. Empirical results have been estimated using ADRL technique using five macroeconomic variables (i.e. democracy, GDP, inflation, interest rate, and trade openness). It has been found that democracy is positively affecting FDI in Bangladesh in the long run but in the short run it is insignificant. GDP impact is positive to DFI both in the long and short run. Interest rate has long run positive relationship with FDI. Finally, trade openness has negative relation with FDI both in long and short run.

OnyinyeUdenze. (2014), examines the empirical relationship between perceived corruption level and the net foreign direct investment (FDI) as a percentage of GDP over 73 countries from the database of World Bank Development Indicators from 2005 to 2011. Several independent variables like corruption, openness, GDP growth, inflation, have been used to run three different OLS models. The study concludes that low and middle-income countries out-side Sub-Saharan Africa have a negative regression coefficient between net FDI inflows and corruption perception index but is it not statistically significant. On the other hand, statistically significant positive coefficient was observed in the Sub-Saharan African countries.

Aziz *et al.* (2014) have studied and examined various factors (i.e. market size, productivity indices of industrial labor, and trade balance) to identify their impact on FDI in Bangladesh. Cointegration test has been applied and found that market size and trade balance is positive and significant to FDI inflows in Bangladesh. Labor productivity has been found positive but statistically not significant to FDI inflows in Bangladesh.

Khan and Mashque (2013) found a negative but statistically important relationship between political risk and the level of FDI. Based on 94 countries over a period from 1986-2009, they have found that most of the indicators describing the political risk have a negative association with FDI for the whole world and the high income countries but strongest negative association has observed in the countries of upper middle income.

Pinjaman S.B. *et al.*, (2019) have attempted to examine the relationship between government stability and foreign investment during the period from 2002 and 2019 for selected ASEAN countries (i.e. Cambodia, Brunei, Malaysia, Myanmar, Indonesia, Singapore, Thailand, The Philippines, and Vietnam). Random effect model was applied to examine that relationship. Seven different independent variables (i.e. voice and accountability, political stability, govt. effectiveness, regulatory quality rule of law, control of corruption and GDP) have been used to measure the relationship on foreign investment. It is found that voice and accountability and govt. effectiveness has negative but insignificant relationship with foreign investment. On the other hand, political stability; regulatory quality; rule of law; and control of corruption has positive relationship with foreign investment.

Muraleethanranet *al.* (2018) observed determinants of FDI by applying time series data from 1978 to 2015 in Sri Lanka. Inflation, GDP, interest rate, infrastructure and international trade volume used as explanatory variables. ADF test applied to check the stationarity in the data and ordinary least square regression model applied to know the relationship among variables. As per the result of this study, all attractive factors of FDI play a positive and significant role to crease FDI in Sri Lanka.

Tosun M.U. *et al.* (2014) examines the causal relationship among corruption, political risk, industrial production index, and FDI from the period between 192 and 2010. Cointegration and error correction model based on bound test approach has been applied to estimate these relationships. It has been found that both corruption and political risk Granger causes FDI inflows in the short run. The findings states that 'helping hand' type corruption is not found in case of Turkey. Moreover, increase in the political risk improves FDI in the short run.

Kim (2010) have examined the relationship between foreign direct investment and political stability by Factor Analysis. The author found that countries with high

political rights have increased FDI outflows and high level of corruption and low level of democracy have higher FDI inflows. The author also comment that political factors are essential for explaining FDI flows and level of corruption have positive relationship with FDI inward performance.

Kurecic P. and Kokotovic F. (2017) have studied the relevance of FDI on economic growth in three different panel. They have adopted Granger causality test and ARDL model for every panel. Based on the findings they have concluded that long-term relationship is present between political stability and FDI for small economies, on the other hand, no such findings was observed in developed economies.

Locas (1990) found an augmented level of FDI in countries with higher political corruption and grievance from cases of political instability. Jadhav (2012) has found no evidence that political stability has a long term relationship with FDI inflows for the BRIC countries. Haksoo (2010) has identified the influence of political stability on FDI and have suggested a pair of hypothesis: FDI inflows generally transmit towards countries that grievance from political instability while FDI inflows tend to move from politically stable countries.

The above literature reviews clearly exhibit the fact that the use of governance indicator to determine its impact on FDI is not common particularly for developing countries like Bangladesh. This investigation definitely contributes to minimize the research gap in this area.

5.0 Research Methodology:

This study attempts to magnify the impact of a list of Bangladesh national governance indicators and macro variables on the volume of foreign indirect investment (FDI) of Bangladesh. Two multivariate regression model have been formed to measure such impact. The first regression model is concerned with regression of selected national governance indicators of Bangladesh on the volume of FDI. There are five governance indicators i.e. Voice & Accountability (VA); Political Stability (PS); Government Effectiveness (GVE); Rule of Law (RL); and Control of Corruption (CC) have been used as independent variables. On the other hand, three independent macro variables i.e. Wage Rate Index (WRI); Gross Fixed Capital Formation (GFCF); and Inflation (INF) have been added in the formation of the second regression model. Yearly data from 1996 to 2019 (total 24 yearly observations) have been used in this analysis. All the five national governance indicators data have been collected from “The Worldwide Governance Indicators (WGI)” a project of World Bank (i.e. <http://worldbank.org/governance/wgi/>). As national governance indicators data are scaled data bounded by -2.5 (weak governance performance) and +2.5 (strong governance performance), this data have been equally portioned into ten parts which is presented in Table: 1.

Table 1: Splitting the Scaled Independent Variables

On the other hand, Bangladesh FDI data and macro variables data have been collected from ‘Monthly Economic Updates’ published by Bangladesh Bank. At first, descriptive statistics of each of the variables have been estimated. Then the multivariate regression model (Model-1) of Bangladesh national governance indicators on FDI has been estimated. Here regression coefficients for each independent variable have been estimated along with the model summary statistics.	Scale Value	Assigned Value	Interpretation
	Above + 2.5	12	Extremely Strong
	Above +2.00	11	Absolutely Strong
	Above +1.50	10	Very Strong
	Above +1.00	9	Strong
	Above +0.50	8	Moderately Strong
	Above +0.00	7	Simply Strong
	Above -0.50	6	Simply Weak
	Above -2.0	5	Moderately Weak
	Above -1.00	4	Weak
	Above -1.50	3	Very Weak
	Above -2.00	2	Absolutely Weak
	Above -2.5	1	Extremely Weak

ANOVA test has also carried out to measure the statistically significance of the regression model. In addition, tolerance value and variance inflation factor (VIF) have been calculated for testing the presence of multicollinearity among the selected independent variables. For measuring the regression estimate of Model- 2, similar procedure has been followed. A brief description of dependent and independent variables have been summarized in Table: 2.

Table 2: A Brief Description of Dependent and Independent Variables

Variable Name	Brief Definition
Foreign Direct Investment (FDI)	An investment from one country (home country) into another country (host country) in order to ensure substantial influence or control on the enterprises of the host country.
Voice and Accountability (VA)	It describes the degree to which the citizens of the country are able to participate in choosing their government as well as freedom of expression, freedom of association and a free media.
Political Stability	The computes the perceptions of the likelihood of political unrest as well as politically motivated violence including terrorism.
Government Effectiveness (GVE)	It measures the quality of public service, quality of civil service, and degree of independence from political pressure as well as quality of policy formulation.

Rule of Law (RL)	It measures the perception of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
Control of Corruption (CC)	It measures the perception of the extent to which public power is exercised for private gain that includes both petty and grand forms of corruptions as well as capture of the state by elites and private interest.
Wage Rate Index (WRI)	It measures the movement of the nominal wages of low paid skilled and unskilled labor over time in different sectors of the economy.
Growth Fixed Capital Formation (GFCF)	It measures the volume of net investment of a country's resident in fixed asset during a given period. Fixed assets includes both tangible as well as intangible assets produced as output in the production processes that are used repeatedly for more than one year.
Inflation (INF)	It measures the average price level of a basket of goods and services during a specified period of time. It is usually proxied by the growth rate of consumer price index (CPI)

However, two multivariate regression model have been formulated based on the following specifications:

Multivariate Regression Mode -1

$$FDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GVE + \beta_4 RL + \beta_5 CC - - - - - (1)$$

Multivariate Regression Mode -2

$$FDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GVE + \beta_4 RL + \beta_5 CC + \beta_6 WRI + \beta_7 GFCF + \beta_8 IN - (2)$$

6.0 Analysis and Discussion:

The first multivariate regression model has been estimated and presented in appendix Table: 3. Five different national governance indicators have been used as independent variables and FDI has considered dependent variable. It has been found that VA and GVE have negative regression coefficients and the other three governance indicators i.e. PS, RL, and CC have positive regression coefficients. Out of these five regression coefficients VA, RL are found statistically significant at 5 percent level and CC has found statistically significant at 10 percent level. However, in order to identify the presence of multicollinearity among the independent variables Collinearity statistics [i.e. Tolerance value and variance inflation factor (VIF)] have been calculated. Here, the research convention is that if tolerance value shows a value greater than 1.0 and VIF value is greater than 10.0, then the regression is said to have multicollinearity among the independent variables. In appendix Table: 3 It is clearly observed that each tolerance value is less than 1.0 and VIF value is less than 10.0, therefore it can be said that the regression model -1 has no issue of multicollinearity problem among the independent variables.

The summery statistics of regression model-1 has been presented in appendix Table: 4. This regression model produced the R-squared value of 0.609 and adjusted R-squared value of 0.500. These results clearly describe that the selected independent variables can jointly explain net 50 percent variability in the dependent variable. In order to justify the statistical significance of the R-squared statistics, ANOVA test has been employed the estimates have been shown in appendix Table: 5. This ANOVA test simply describe that whether R-squared value is significantly greater than zero or not. Here p-value of the F-statistics is less than 5 percent which imply that R-squared value is statistically significant. That means the independent variables are able to account for a significant amount of variance in the dependent variable which implies that the regression model is significant.

The estimates of multivariate regression model-2 is presented in appendix Table: 7. Here the regression coefficient of VA and CC have been found negative and all other regression coefficients i.e. PS, GVE, RL, WRI, GFCF, and INF have been found positive. Among all the independent variables, VA and PS are found statically significant at 10 percent level and only one macro variable i.e. WRI has been found statistically significant at 5 percent level. In the similar procedure, multicollinearity among the selected independent variables have been tested by collinearity statistics. Here, tolerance value for each independent variable is less than 1.0 and VIF is also less than 10.0. Therefore, it can be said that, independent variables used in this model has no strong statistical association among them and the model is free from multicollinearity.

Appendix Table: 8 presents the summery statistics of the regression model-2. Here R-squared value is 0.913 and the adjusted R-squared value is 0.867. These statistics depicts that the selected independent variables can jointly explain more than 86 percent variability in the dependent variable i.e. FDI. At the end, statistical significant of the R-squared value has been tested by ANOVA test. Here, ANOVA test estimates are presented in appendix Table: 9. In this table, the p-value of the F-statistics is 0.000 whichis less than 5 percent level. This estimates simply explain that the R-squared value (i.e. 0.913) is statistically significant at 5 percent level. Having this ANOVA test estimates, it can be concluded that, multivariate regression model-2 is also statistically significant and independent variables can jointly explain net 87 percent variability in the dependent variable.

In both of the two regression models, VA has a negative regression coefficient with FDI which is statistically significant. However, FDI is usually attracted by cheap labor cost, better investment climate and greater tax and other incentives from the government. In this case, to what extent, the participation of the country's citizen is reflected in the selection of the government is immaterial. Government can easily attract FDI by providing facilities like required logistic and infrastructural support,

tax incentives, congenial investment climate etc. This finding is consistent with Gholipour H. F. *et al.* (2011), Ojeka, S. *et al.* (2019).

In both regression model-1 and model-2 the coefficient of political stability is positive but it is not significant in model-1 but found significant in model-2. It is very likely that, a country with high political unrest results higher required rate of return for a foreign investor in any investment to be accepted. As political instability is an important component of country risk, foreign investor do not like to keep their investment in any country with higher country risk. As a result, political stability has been found as a good functional variable that can attract FDI in Bangladesh. This finding is consistent with Kim (2010) and Amalet *et al.* (2015) who states that political stability exerts an essential stimulus on the markets of business and environment and a relevant characteristic for long-term ventures like FDI. Sabir *et al.* (2019) states that political stability positively affects FDI in low and middle-income countries because foreign investors do not like to have anxiety from sudden policy reversal or changes. This finding is inconsistent with Locus (1990) who found an increased level of FDI towards countries that have corruption and suffers from instances of political instability.

Rule of law (RL) has a statistically significant positive coefficient in model-1 and in model-2 the coefficient is positive but not statistically significant. Basically, rule of law describes the extent to which the citizens of a country have trust on the rule of the society. In addition, the citizens have confidence on the quality of contract enforcement, property rights, and law and order conditions. When citizens are more likely to abide by the rules of the society, it contributes to expanding the required climate for the increased level of business activity in case of both domestic and foreign investments. As a result, the citizens' compliance to abide by the rules of the country also attracts the FDI from foreign countries. According to Hoff and Stiglitz (2005) rules and laws are usual sets of agreements based on which countries implement FDI policies that ultimately protect future returns. Sabir *et al.* (2019) also states that rule of law discourages market-unfriendly policies and minimizes risk.

Government effectiveness (GVE) has statistically insignificant positive coefficient in both of the two models. This finding is consistent with Sabir *et al.* (2019). It is likely to say the government in the form of public and civil functions that are free from political influence and pressure, inspires investment by individual entrepreneurs and foreign investors.

Control of corruption (CC) in this study generates a statistically significant positive coefficient in model-1 but in model-2, the coefficient is positive but insignificant. This finding implies that, the more it is possible to control the corruption, the more we can attract FDI in Bangladesh. This finding is consistent with Wei (2000) who found that the evidence of corruption reduces the inward FDI

stock. Habib and Zurawicki (2002) found evidence that corruption as well as the difference in corruption between the host and source country have a negative influence on FDI. Voyer and Beamish (2004); Egger and Winner (2006); Tobias Zander (2021); Alemu (2012); Woo (2010); and Aparna and Kartikeya (2013) also found the same negative relationship between the spread of corruption and the level of FDI.

Wage Rate Index (WRI) has a statistically significant positive regression coefficient in model-2. Increasing the nominal wages of the low paid skilled and unskilled labor is an indication of the improved and uninterrupted productivity from both domestic and foreign investment which is also backed by the growth of the economy. All these factors are mostly favorable for bringing more FDI from the source country. Growth Fixed Capital Formation (GFCF) has a positive but insignificant regression coefficient in model-2. This finding implies that large amount of GFCF can attract FDI in Bangladesh. It is true that an increase in gross fixed capital formation which comes from domestic as well as foreign investment strengthens the productive capacity of an economy which in turn also attracts more FDI from foreign country. This finding is consistent with Onyinye U. (2014); Behname (2012); and Alessia A. *et. al.* (2017).

Inflation rate (INF) is a crucial factor in determining the inflow of foreign investment. In this study, negative but statistically insignificant coefficient has been found for inflation in regression model-2. In many cases, it is argued that increased inflation results in a reduction of real returns on an investment thus discouraging foreign investors from entering the economy, and consequently, a lower level of FDI. This study has found a compliance with this argument. This finding is consistent with Coban O. (2019), Tsaurai, K. (2018), and Sayek, S. (2009) etc. Khan and Mitra (2014) states that high rate of inflation distorts the economic and investment activity, which ultimately depresses the inflow of capital.

7.0 Conclusion

FDI of Bangladesh is undoubtedly an important lime light variables based on which the country's economic performance can be measured. This study has made an attempt to investigate the impact on FDI of Bangladesh that are expected to exert from both of its governance indicators and macro variables. Voice and accountability, rule of law and control of corruption are found statistically significant indicator from the governance indicator side in regression model- 1. But when macro variables are added, then voice and accountability, political stability and wage rate index are found statistically significant. It is true that, this statistical evidence may differ on developing countries than that of developed countries. Government attitude to rule the country, investment and tax policy, monetary policy, investment climate may also

influence the level of FDI in any country. The findings of this study has revealed some important insight about the governance sector determinants of FDI in Bangladesh. Further in-depth study may explore some interesting evidence about the true determinants of FDI in Bangladesh.

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Appendix:

Table 1: Descriptive Statistics

	N	Mean	Std. Deviation
FDI	24	1190.3313	1002.38231
VA	24	4.6250	.49454
PS	24	3.2500	.89685
GVE	24	4.0417	.20412
RL	24	3.9167	.28233
CC	24	3.5000	.51075
WRI	24	5207.0000	3051.89663
GFCF	24	8.6946	1.55332
INF	24	7.1771	2.69477
Valid N (listwise)	24		

Table 2: Independent and Dependent Variables on Regression Model 1

Model	Variables Entered	Variables Removed	Method
1	CC, VA, GVE, RL, PS ^b	.	Enter
a. Dependent Variable: FDI			
b. All requested variables entered.			

Table 3: Multivariate Regression of National Governance Indicators on FDI (Model-1)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1862.401	3626.901		.513	.614		
	VA	-1224.378	359.392	-.604	-3.407	.003	.691	1.447
	PS	18.328	212.933	.016	.086	.932	.599	1.670
	GVE	-691.118	798.870	.141	-.865	.398	.821	1.218
	RL	1318.728	627.363	.371	2.102	.050	.696	1.437
	CC	731.246	372.408	.373	1.964	.065	.603	1.657

Table 4: Multivariate Regression Summary Statistics (Model-1)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780 ^a	.609	.500	708.64141

a. Predictors: (Constant), CC, VA, GVE, RL, PS

Table 5: ANOVA On Regression Model-1

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14070609.044	5	2814121.809	5.604	.003 ^b
Residual	9039107.564	18	502172.642		
Total	23109716.608	23			

a. Dependent Variable: FDI

b. Predictors: (Constant), CC, VA, GVE, RL, PS

Table 6: Independent and Dependent Variables on Regression Model 2

Model	Variables Entered	Variables Removed	Method
2	GFCF, GVE, RL, CC, VA, PS, WRI, INF	.	Enter

a. Dependent Variable: FDI

Table 7: Multivariate Regression of National Governance Indicators and Macro Variables on FDI (Model-2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-922.882	1922.086		-.480	.638		
VA	-434.044	219.499	-.214	-1.977	.067	.495	2.021
PS	205.166	114.668	.184	1.789	.094	.551	1.814
GVE	94.715	429.423	.019	.221	.828	.759	1.318
RL	425.064	351.779	.120	1.208	.246	.591	1.692
CC	-119.125	225.510	-.061	-.528	.605	.439	2.276
WRI	.282	.039	.857	7.133	.000	.402	2.489
GFCF	27.008	51.167	.042	.528	.605	.923	1.084
INF	17.068	31.401	-.046	.544	.595	.814	1.228

a. Dependent Variable: FDI

Table 8: Multivariate Regression Summary Statistics (Model-2)				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.955 ^a	.913	.867	366.18085
a. Predictors: (Constant), GFCF, GVE, RL, CC, VA, PS, WRI, INF				

Table 9: ANOVA On Regression Model-2						
Model	Sum of Squares	df	Mean Square	F	Sig.	
2 Regression	21098390.347	8	2637298.793	19.668	.000 ^b	
Residual	2011326.261	15	134088.417			
Total	23109716.608	23				
a. Dependent Variable: FDI						
b. Predictors: (Constant), INF, GFCF, GVE, RL, CC, VA, PS, WRI						

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PATHWAY TO FINANCIAL INCLUSION THROUGH AGENT BANKING: OPPORTUNITIES AND CHALLENGES

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Abstract

This article aimed to explore the consequence of Agent Banking in enhancing financial inclusion. A convenient sampling technique was used to pick 10 banks out of 21 banks and the respondents were top and mid-level employees of 10 different banks who are involved in agent banking activities. The collected data were analyzed through SPSS. The study proposed that agent banking as a cost-effective, flexible delivery channel has created a huge impact for rural people, Banks and rural Economy such as, create awareness about financial literacy, increase the tendency of savings, improve the financial performance of SMEs, create new business in a rural area, generate employment opportunities and helps to empower the rural women. Further results revealed that to expand the geographic coverage as well as opportunities to collect more deposits, in the remote future uplift the financial performance, brand image of banks. Eventually, this policy will support to promote agent banking initiatives and motivate other banks to the adoption of agent banking to bring unbanked people, particularly from the disadvantageous region in emerging countries. The finding suggests that agent banking i.e. a tool or way of financial inclusion needs to focus on skills & Trained employees, policy initiative, increase the number of service providers, efficiently manage liquidity and creating awareness among the rural peoples so that they will be encouraged to open and retain account i.e. access to the formal financial channel in near future.

Keywords: Agent Banking, Financial Inclusion, Rural Economy

1. Introduction

Exclusion from the formal financial channel is considered one of the major difficulties to financial empowerment. Indeed, absence in entry to financial services like, credit and deposits shrinks families' capability to invest, save and retort to health shock (Aker and Wilson, 2013). Financial inclusion encompasses all activities that make formal financial services available, accessible and affordable to all sections peoples (Alliance for Financial Inclusion, 2017).

In general terms, financial inclusion is the percentage of individuals and companies that have access to formal financial services (Huefner & Bykere, 2015). Financial inclusion, which is generally definite as the part of people and businesses using financial services, has become a focus of considerable attention among

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legislators, academicians and other stakeholders (Global Financial Development Report, 2014). Financial inclusion measure by way of a proportion of adults (over 15 year) who report having at least one account in their name in an institution that offers a comprehensive set of financial services and is subject to some type of government regulation (Financial Inclusion Insights, 2017). Financial inclusion is defined to be a remedy for drop down poverty and income disparity (O. Nkuna, et al. 2018). Financial inclusion is way of adding underprivileged people in formal financial channel through the services of low charge in credit and appropriate service delivery (Rangarajan, 2008). Rahman (2018) described that financial inclusion has evolved into the tactical way for accomplishing Sustainable Development Goals (SDGs) because it's raise savings mentality, mitigating financial risks, build an attitudes towards access of formal financial channel and gaining financial empowerment. He mentioned that Central Bank recognized financial inclusion as a vital part of monetary policy. Financial inclusions enrich the financial situations and improve the living standards of poor and less advantaged people. Moreover it creates multiplier effect in the economy like rise economic activities and employment when it is promoted widely in the perspective of economic inclusion (Khan, 2011). Income inadequacy is not only the determinant of poor people but also the deficiency of competencies to affiliate themselves with the economic and political systems. Financial inclusion involved socially deprived people accumulation in the formal financial channel by generating opportunities for all (Sen, 2000).

According to Bangladesh Bank, 81% percent of the adults in Bangladesh are unbanked i.e. only 19% of the total adults have access to banks. Among these 19%, 14% belong to urban areas i.e. only 5% of rural adults have access to banks. This denotes a massive untouched market for commercial banks. According to World Bank report (2015) out of total population in Bangladesh, 66 percent peoples live in the rural area of that most of do not have a bank account. As the majority in the rural areas are unbanked and characterized by lack of financial education, traditional banks often face hard times in reaching these customers especially in the rural areas. Further, Further, Opening and functioning traditional bank branches are not economical for serving low income customers in distant places. This is one of the causes banks are reluctant to open rural branches (Kabir, Islam & Inam, 2013). Customers in rural areas also have to move long distances to find the particular bank branches. In such situations, agent banking is a promising option for providing banking facilities through a set-up of bank representative like a physical bank branches. It is tremendously useful as the travel distance, for instance to a retailer, is likely to be much shorter for a bank. Agent banking plays a significant role in bridging the financial inclusion gap around the worldwide.

In 1999, Brazil developed the agent banking model. Now a day, it is gained more popularity everywhere in the world particularly in developing nation. Other countries

in Latin America like, Peru 2005, Colombia and Bolivia 2006, Ecuador 2008, Venezuela and Argentina 2009 successfully followed this agent banking model. This banking model is also popular in Pakistan, Kenya, South Africa, Philippines, Uganda and India (Mwenda and Ngahu, 2016). Although the Bangladesh Bank issued the policy in 2013, the banks started complete agent banking operations in 2016. Agent banking started off with 10 banks; and now 19 commercial banks run agent operations (Bangladesh Bank, July - September quarterly report - 2019). The purpose of being familiarizing with correspondent banking is to offer a secure and reliable alternate delivery method for banking services to poor people who generally live in remote zones and cannot be enclosed by traditional banking networks. This technique is attained more acceptance as a profitable distribution channel for banks and a suitable way to provide banking services to customers. Finally, the banks will grow their business and increase financial inclusion using intermediaries as agents (Bangladesh Bank, Guideline on Agent Banking, December 09, 2013).

2. Theoretical Discussion

2.1. Bank-led theory

Lyman, Ivatury and Staschen established the bank led theory in 2006 and the basic concept of this model is branchless banking. According to this model, a certified financial organization delivered financial services by an agent. Lyman et al. (2006) termed agents maintain the relationship or interact with customers but products or services have been developed by banks. Retail agents have face-to-face contact and perform the functions cash in / cash out, similar to branch bank that collect deposits and process withdrawals (Owens, 2006). In some countries retail agent manage all account opening process, savings scope and in certain situations, provide loan facilities to the customers. It provides a clear alternative to outmoded banking services as customers conduct financial transactions through retail agents rather than branches (Lyman et al., 2006). It is possible to significantly upturn the coverage of financial services by using diverse distribution channels, business partners with different experiences and target markets (unlike from outmoded banks), and can be much cheaper than banking alternatives (Tomaskova, 2010). Banking regulation generally identifies multiple categories of risks that the banks' regulatory and supervisory bodies are trying to lessen the effects of those risks. Five of these risks - credit risk, operational risk, legal risk, liquidity risk and reputational risk - are particularly important when customers use retail agents instead of bank branches to access banking services. The practice of retail agencies may similarly raise specific concerns related to consumer protection and compliance with anti-money laundering and terrorist financing rules (Kumer et al., 2006).

2.2. Non-Bank-Led Theory

According to Non-bank led theory, customers are not dealing with a bank and they do not manage bank accounts. They contact with a non-bank organization that may be mobile operator, retail agent etc. (Layman et al., 2006). Kumar et al. (2006) suggested that customers can exchange their cash in e-money warehoused in an online e-money account on the non-bank server, which is not tied to a bank account on behalf of the persons. Kapoor (2010) recommended that at higher risk because the regulatory environment in which these non-bank businesses are located may not pay much attention to issues related to customer identification, clear paper work and records keeping that are prerequisites for establishing a secure financial system.

2.3. Bank-Focused Theory

Bank focused theory highlight that provide banking services to their current customers by using inexpensive non-traditional delivery methods, such as ATM, mobile banking and e-banking. This model proposes various benefits like, better control and brand visibility for the financial institutions, but which has some challenges. Because, the main concerns of customers are the quality of experience, the security identity and transactions, the trustworthy and ease of access of service and level of customization permitted. Banks need to solve these problems for providing branchless banking services through user friendly interface and ensure the security by using multifactor verification (Kapoor, 2010).

2.4. Agency Theory

At first, Stephen Ross and Barry Mitnick developed the agency theory in 1970s. Agency relationships include one or more peoples (principal) who employ a different person (representative) to provide services on behalf of them. This means that certain decision-making powers have been given to the agency (Meckling & Jensen, 1976; Jensen, 1976). Mitnick, (1973) identified various forms of agency relationship are employer (principal) and employee (agent); state (principal) and ambassador (agent); constituents (principal) and elected representative (agent); organization (principal) and lobbyist (agent) and shareholders (principal) and chief executive officer (agent) (Mitnick, 1973). A banking institution is defined as a company that is outsourced by a company to sign a contract with a financial institution, get authorization from a central bank, or deliver services to a financial firm on behalf of a financial institution which is regulated by the central bank. The Central Bank of Kenya was introduced agent banking model in May 2010 that permits third parties to propose certain banking services to customers on the side of commercial banks (Central Bank of Kenya, 2010).

2.5. *Development Theory*

Development theory (Comparato, 2015; Panday & Raman, 2012) suggested that access to and use of financial services is essential in both individual and firm level to defeat the discrimination, deprivation from formal financial channel and for realizing the wider economic development.

3. **Literature Review**

Kerich (2015) agent banking provides banking services to customers through a third party in favor of banks by licensed branches. Kitaka, (2001) it is a cost-effective and more flexible delivery channel for providing financial services among the populations where difficult-to-reach, geographically detached area and banks have not enough incentive or capacity to establish. Dondo (2003) the amount of transactions through agent banking is not huge because this facility is to serve in a poor or remote area. In that reason, it is not easy to make profitable for banks and agents. However, in long-run there is possibility to increase the number of customers and as well as collections of deposits. Podpicra, (2008) signifies that agent banking grows the economics conditions of the financial institutions or banks. Adera, (1995) fresh delivery model is a technique to uprising the economics scenario and encourage to savings of the remote area's peoples. Atieno (2001) agent banking provides all sort of banking services in a small scale by using retail or postal outlet. Christopher (2002) described that agent banking ensure to entrepreneurs and low-income people more relaxed banking services at their native area than traditional banking. Kasekende, (2008) there is a problem or risk of supervision because large number of agents delivers financial services, where bank supervised indirectly. Rahman, (2016) described that agent banking helps to geared up the SME sector. Different activities of SME sector like, fund transfer, business dealing and others activities have become easier and smooth without any middlemen dependency. Atman, (1993) agent banker's need not to be confined in tangible attributes of market offerings rather think about brand loyalty. Brand loyalty holds in customers mind and it is created by agents. For this reason, agent bankers should always take in account what promises are attracting more customers and maintain the promises accordingly. According to research conducted by Panturo (2019), introducing Agency Banking in Uganda – agency banking enables to reduced travel time as well as better financial inclusion and increased ease of formal financial services. Atandi, (2013) technology and institutional innovation, financial literacy, lack of capital, concern of insecurity and fear of robbery are the main challenges of agent banking. Mwando, (2013) agency banking had positive impact on the financial performance of commercial bank due to its low transaction cost, more financial service accessibility and growth of market share. Bizah et al (2017) it is an influential tools in order to derive financial inclusion due to its ease accessibility and less cost. Side by side it has related with few

difficulty like, agent selection, training and monitoring. Afande et al (2015) four factors such as availability of liquidity, geographic coverage, cost and security of correspondent banking services have a positive and significant relationship with financial inclusion. Lehman (2010), building network, managing liquidity and channel were the core operational challenges of agent banking to make it feasible. According to the study of Clara Veniard (2010) agent banking systems are cost effective operations than branches. It has only 2 percent to 4 percent costs of a bank branches to set-up costs of an agent.

4. Methods

The survey questionnaire was designed by using simple and impartial language so that participants can certainly realize the questions. As an efficient financial inclusion tool, opportunities and challenges of agent banking were measured through 32 questions. Questions used to measure the opportunities and challenges of agent banking were adapted from previous study with slight modification. A 5-point Likert scale (strongly disagree, disagree, neutral, agree, strongly agree) has been used for all variables. A convenient sampling technique was used to choose 10 banks out of 21 banks and the respondents were top and mid-level employees of 10 different banks who are involved in agent banking activities. The collected data were analyzed through SPSS. A multi-theoretical framework has been adopted in which the research is comprised of bank-led, non-bank-led, bank-focused, agency and development theories.

5. Development Scenario of Agent Banking

Table 1: Development Scenario of Agent Banking in Bangladesh

Particulars	2016	2017	2018	2019	2020
Bank With license	14	18	21	24	28
Bank in operations	10	14	19	21	26
Number of agents	1,646	2,577	4,493	7,856	11,925
Number of outlets	2,601	4,157	6,933	11,320	15,977
Number of accounts	5,44,536	12,14,367	2,456,982	5,268,496	9,643,163
Number of Female accounts	1,59,149	3,78,951	850,247	2,297,775	4,398,122
Amount of deposits (BDT lacs)	38,068	1,39,938.96	311,240.60	751,716.22	1,597,725.50

Amount of loan disburse (BDT lacs)	0	10,884.47	18,948.89	44,600.63	189,315.75
Amount of inward remittance (BDT lacs)	30,956	1,98,201.82	555,742.47	1,553,431.86	4,880,634.58

Source: Bangladesh Bank Quarterly Report Agent Banking Activities in Bangladesh [2016 - 2020]

Bangladesh Bank is working persistently to appreciate the vision of “inclusive finance” to make banking service convenient for under-served households and institutions. In this connection, Bangladesh Bank has recently taken one more initiative to launch agent banking. It began with 10 banks. Now, 26 commercial banks operate agent banking activities with 15,977 outlets under 11,925 agents. Table 1 shows that from 2016 to 2020 the number of accounts increased from 5,44,536 to 9,643,163 and with the deposits from Tk.38,068 lacs to Tk. 1,597,725.50 lacs. Data shows that inward remittance of about Tk. 4,880,634.58 was channeled through agent banking across the country up to December 2020.

6. Data Analysis

Table 2: Demographic profile of the respondents

Profile	Groups	Frequency	Percent (%)
Gender	Male	8	80
	Female	2	20
Age	25 to 30	1	10
	31 to 35	3	30
	36 to 40	4	40
	Above 40	2	20
Marital Status	Married	9	90
	Single	1	10
Employment position	Top-level	7	70
	Mid-level	3	30
Agent banking brings the rural people under banking services	Yes	10	100
	No	0	0

Source: Field survey

The descriptive statistics of the demographic profile (see table 2) of the respondents are as follows. Demographic information shows 80% respondents are male and remaining 20% are female. Employment position of the respondents are top level 40% and mid-level 40%, only 20% are holds others position. 90% respondent bankers are married and only 10% are single. 90% respondent banker's aged above 30 years. All the respondents believed that agent banking brings the rural people under the umbrella of banking services.

Table 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.762	.796	32

Table 4 –Perceptions of Banker's on Agent Banking Opportunities

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Rank (Based on Mean value)	Cronbach's Alpha
It is convenience for rural people	4.70	0.48	-1.035	-1.224	2 nd	0.753
I think it is powerful tool of financial inclusion	4.30	0.83	-.687	-1.043	5 th	0.743
It is possible to expand the geographic coverage	4.70	0.49	-1.035	-1.224	2 nd	0.764
I think it is possible to capture the new customers	4.30	0.49	1.035	-1.224	5 th	0.756
It create the employment	4.00	0.82	-1.531	4.500	7 th	0.745
I belief that develop of agent banking is expected to lead to improve financial performance of SMEs of rural area	4.00	0.94	.000	-2.129	7 th	0.743

Agent banking is profitable for commercial banks in terms of monetary	4.00	0.67	.000	.080	7 th	0.749
Agent banking is profitable for commercial banks in terms of non - monetary (brand image)	4.20	0.43	1.779	1.406	6 th	0.750
Agent banking reduce the cost of delivery financial services to unbanked peoples	4.80	0.42	-1.779	1.406	1 st	0.763
I think it helps to create new business in rural area	4.20	0.63	-.132	.179	6 th	0.747
Rural or village people enjoy the agent banking facilities	4.30	0.67	-.434	-.283	5 th	0.736
To reached the poor marginalized unbanked peoples	4.40	0.52	.484	-2.277	4 th	0.748
To increase sales on loans and other borrowings	4.00	0.67	.000	.080	7 th	0.770
It create opportunities to collect more deposits	4.60	0.52	-.484	-2.277	3 rd	0.760
To create awareness about financial literacy among the unbanked peoples	4.30	0.48	1.035	-1.224	5 th	0.758
It increase the tendency of savings among the people	4.80	0.43	-1.779	1.406	1 st	0.763

It create the employment opportunity in the region	4.20	0.63	-.132	.179	6 th	0.762
It helps to empowered the rural women	3.90	1.10	-.388	-1.236	8 th	0.780

Source: Data collected from Field Survey (Author's Calculation)

Table 5 –Perceptions of Banker’s on Agent Banking Challenges

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Rank (Based on Mean value)	Cronbach's Alpha
Lack of publicity of agent banking	3.20	1.03	.272	-.896	5 th	0.758
Policy initiative is not sufficient	3.40	1.18	.041	-1.457	4 th	0.729
Lack of knowledge of rural people on agent banking	3.80	0.79	-1.290	2.985	3 rd	0.780
Lack of services facilities	3.10	0.74	-.166	-.734	6 th	0.759
Limited number of banks provide this service	3.90	0.88	-1.018	1.831	2 nd	0.748
Lack of collaboration between agent and bank	2.50	0.98	-.454	-.516	10 th	0.775
Liquidity management	3.80	0.92	-.601	.396	3 rd	0.747
Lack of skills and trained employees	4.40	0.52	.484	-2.2	1 st	0.763
Possibility of fraud and theft	2.60	1.35	.583	-.756	9 th	0.765
Lack of necessary tools and techniques	2.70	1.06	1.444	1.258	8 th	0.738
Loss of customers asset and records	2.40	0.97	.813	-.022	11 th	0.750

Lack of trust among the rural peoples	2.90	1.10	.863	-.522	7 th	0.740
Possibility of system and hardware failure	3.20	0.92	-.473	-1.807	5 th	0.781
Reputational risk	2.90	1.37	-.104	-1.169	7 th	0.756

Source: Data collected from Field Survey (Author's Calculation)

Reliability of all items is measured through Cronbach's alpha and the threshold value more than 0.70 (Nunnally, 1978). Table 4 & 5 shows the Cronbach's alpha for individual variables are range from 0.729 to 0.781. Every items of the study are reliable.

Table 4 & 5 shows the descriptive statistics for the items of opportunities and challenges of agent banking indicated that the means were in the range 4.80 to 3.90 & 2.40 to 4.40 respectively. The standard deviations were in the range 0.42 to 1.10 & 0.74 to 1.37 correspondingly. Standard deviation showed there are the normal distributions. The relatively high standard deviation value indicates that the challenges of agent bank were rated to be low i.e. they are not agree to the researchers. Data normality assesses through the Skewness and Kurtosis and the cut-off value between -2 to +2 (George & Mallery, 2010). Table – 5 indicates, all the items value lies between - 2 and + 2. So, it is proved that data normally distributed.

From table - 4 the mean value shows, the greater number of participants strongly agree that agent banking bring or create huge opportunities for rural areas, banks as well as play vital role to the economic development Bangladesh such as to expand the geographic coverage, to capture the new customers, generate the employment, lead to improve financial performance of SMEs in rural area, increase profitability, improve brand image, reduce the cost of delivery financial services to unbanked peoples, to create new business in rural area, rural or village people enjoy the agent banking facilities, increase sales of loans and other borrowings, opportunities to collect more deposits, to create awareness about financial literacy among the unbanked peoples, increase the tendency of savings among the people, create the employment opportunity in the region, helps to empowered the rural women.

Table 5 shows that, most of the respondents strongly agreed that skills and trained employees (M = 4.40; SD = 0.52), limited number of banks provide this services (M = 3.90; SD = 0.88), liquidity management (M = 3.80; SD = 0.92), policy initiative is not sufficient (M = 3.40; SD = 1.18) and finally lack of knowledge of rural people on agent banking (M = 3.80; SD = 0.79) are the major obstacle to provide smooth services through agents (M = 4.40; SD = 0.52). The respondents did not give any opinion regarding the question that lack of publicity (M = 3.2; SD =

1.03), lack of services facilities ($M = 3.10$; $SD = 0.74$), possibility of system and hardware failure ($M = 3.20$; $SD = 0.92$); Last of all, the respondents disagreed that lack of collaboration between agent ($M = 2.5$; $SD = 0.98$), possibility of fraud and theft ($M = 2.6$; $SD = 1.35$), lack of necessary tools and techniques ($M = 2.7$; $SD = 1.05$), loss of customers asset and records ($M = 2.4$; $SD = 0.97$), lack of trust among the rural peoples ($M = 2.90$; $SD = 1.10$) and reputational risk ($M = 2.9$; $SD = 1.37$).

Table 6: Agent banking is a powerful tool of financial inclusion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	2	20	20	20
	Agree	4	40	40	60
	Strongly agree	4	40	40	100
	Total	10	100	100	

Source: Data collected from Field Survey (Author's Calculation)

The table summarized that 80% respondents' bankers think that agent banking is a powerful tool of financial inclusion and remaining 20% bankers are neither agree nor disagree agent banking as a strong financial tool.

7. Conclusion

Finally, a comprehensive effort by the government, Bangladesh Bank, commercial banks, MFIs and mobile phone companies will facilitate the peoples to aware the choice of agents for enjoying the variety of financial services. It can create wonders in terms of financial inclusion and improved financial activities. If the booming banking industry makes unremitting efforts by following the proper guidance from the central bank, correspondent banking can be an effective instrument to enhance financial inclusion and realize the vision of no poverty in Bangladesh. Agent banking is gaining popularity among village women, micro entrepreneur, and recipients of foreign remittance. However, agent banking services have a noteworthy influence on financial inclusion and close the market gap which is arise due to inadequate branch banking facilities in rural area. As, agent banking services are not only provide fundamental banking services like, cash deposits and withdrawal but also it is predict that this innovative delivery channel will energize the rural economy.

8. Limitation and future study

The study is confined to bankers' views who are involved in agent banking operations. The working individuals in agent outlets or people who enjoy the agent banking services may differ from the bankers' view in terms of experiences and characteristics.

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CROSS-BORDER REGIONS AS POTENTIAL AND EMERGING TOURIST DESTINATIONS FOR TRADE IN SERVICES: A STUDY ON SUNAMGANJ BORDER IN BANGLADESH

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Abstract

Cross-border trade in services is quickly expanding, with developed and developing countries. As a part of the trade-in services, cross-border tourism can play a significant role in the context of the Bangladesh-India border region. There is an excellent potential for developing tourist circuits involving all the border sites of Bangladesh-India. Altogether, it offers attractive opportunities for the growth and development of the Border Tourism and Hospitality Industry. Although they have a lot of tourism potential, these locations are economically underdeveloped, with low living standards and limited job opportunities for the border populace. As a result, tourism industries in Bangladesh-India border destinations have not grown much. Therefore, tourism education and infrastructure development are urgently required to help attract tourists to the desired border destinations. This research recommends that tourism in the border areas of Bangladesh can produce benefits that stimulate growth in border areas. The purpose of this study is to look at the tourism potentials of border destinations in the Sunamganj border area under the overall context of the Bangladesh-India border region and make recommendations for its development. Data was collected from the local population of the border area through a Self-Administered Questionnaire. The result of the study states that; cross-border tourism is flourished by creating job opportunities for the local people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationships. Thus, cross-border tourism as a part of cross-border trade can help develop better border management between Bangladesh and India.

Keywords: Trade in Services, Tourist destination, Cross-border cooperation, cross border trade, cross-border regions, tourism development, cross-border areas in Sunamganj.

1. Introduction

The impact of tourism and travel on a country's economic and community growth can be enormous: opening it up to commerce, trade and capital investment, providing jobs and encouraging entrepreneurialism within the workforce and safeguarding heritage and cultural values. Travel and tourism generated US\$ 9170 billion which is 10.4% of global GDP and created 334 million jobs for the global

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economy in 2019 (World Travel & Tourism Council, 2021). Tourism has played a vital role in destination development. "Developing a network approach of countries in terms of economy generation has also created the opportunities for tourism participating industries to set the standard at the international level" (Manhas et al. 2014). Cross-border tourism as a part of the trade-in services needs important focus and priority for local and national economic development. Cross-border tourists interact with each other in a specific interest like regional issues (Dunets, et al. 2019). Cross-border tourism contributes to alleviating the negative impacts in the border area and helps to improve the socio-economic and cultural situations of the respective countries.

Bangladesh is a stunningly beautiful country. Endowed with a bountiful variety of tourist attractions, border sites offer vast potential for growth in this sector with spectacular sights that provide visual delight. The destinations are especially having huge potential in eco-tourism, religious tourism, heritage tourism, hill tourism, rural tourism etc. To attract international and domestic tourists, the country needs good strategic management. One of the most crucial components for the local tourists is a change of habit to tour new parts of the country. It is also essential to have a foreign tourist atmosphere and other associated facilities to be worthwhile sites to visit. Both the government and the business sector may be willing to participate in the growth/development of tourism infrastructure. As a result, it will generate employment and add value to its gross domestic product. Although there have been government and corporate initiatives, there is still a long way to go in terms of expanding the tourism sector. The tourism sector must develop efficiency and effectiveness, which necessitates strategic leadership, strategic formulation and strategic implementation.

Sunamganj's border areas have a lot of natural tourism potentiality. Tourists should take advantage of various limestone sites, mountains, lake, rivers, rich local cultures and other pristine tourism attractions. There is also great potential for development of tourist circuits. From the standpoint of cross-border tourism potentiality, the prospects of cross-border collaboration for boosting the competitiveness of tourism destinations is also addressed in this study. The main objectives of this study are to analyze the tourism potentials in the border destinations of Sunamganj under the overall context of Bangladesh and provide recommendations for the development of cross-border tourism.

2. Literature Review

The state border is defined as a "dividing line between the territories of two states" by thesaurus dictionaries (Manhas et al. 2014). Artemenko (2010) stated that,

cross-border systems can be developed as an integrated one having shared impact of two or more countries located on opposite sides of the borders and shared common geopolitical interests between neighboring states. These lines are objectively existing and unconditional in the current world. The border is an institution that serves as a functional barrier between states, allowing for the management of human flows and the regulation of cross-border trade, but also allowing for the facilitation of interactions and exchanges (Hageman et al. 2004). Cross-border tourism between neighboring states are yet to be thoroughly investigated in the previous studies (Hampton 2009). Border regions are frequently rural and/or remote areas where tourism is frequently considered a vital instrument for economic growth. Timothy (2001) distinguished the three-dimensional correlation among destinations lying on both sides of a political border (Figure 1).

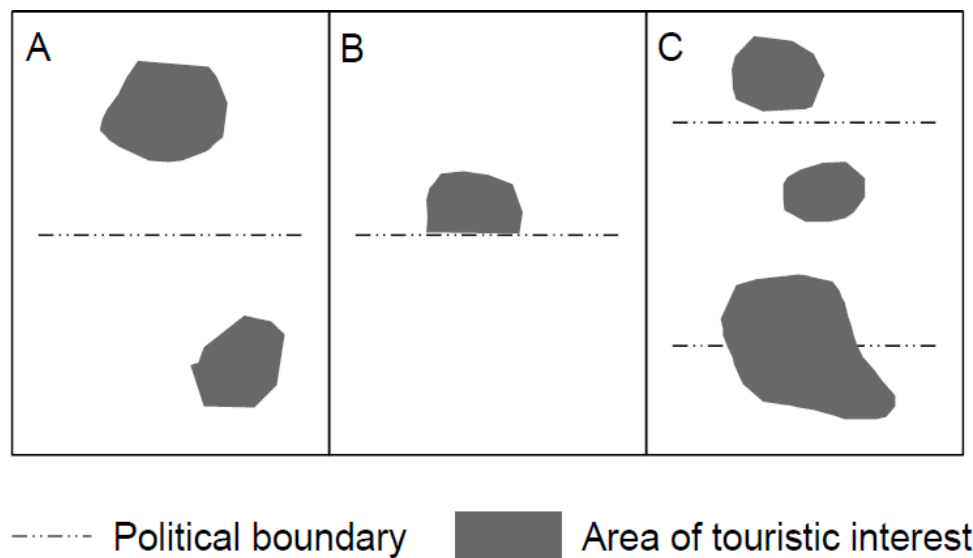


Figure 1: Cross Border Tourism and Political Boundaries Sources; Timothy (2001, p.76)

In scenario A, two state destinations are situated within a specified space of the border; while only one side of the border has a tourism destination in case of scenario B. There are just a few choices for border tourism development in these two scenarios. Only in case of scenario C, when two or more destinations are near to the border, or where the border splits one destination, is favorable for cross-border tourist development (e.g. a continuous natural setting such as a low mountain range). Timothy (2013) identifies three scenarios when it relates to the impact of a border that can have on the types of tourism activity on both sides (Figure 2). These are mostly determined by the degree of border permeability and the level of cooperation between stakeholders on both sides:

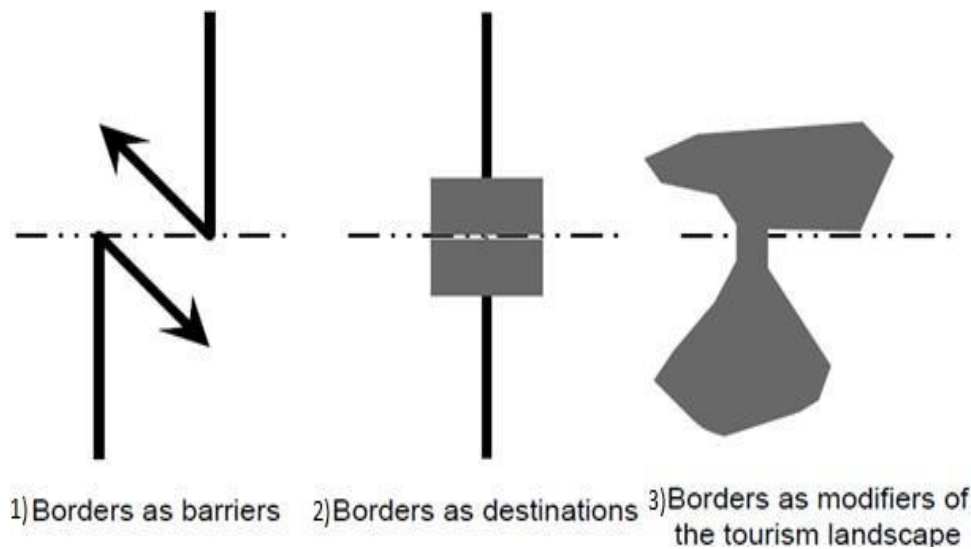


Figure-2: Topology of Border; Sources: Timothy (2013; p.106)

The role of the border in tourism has commonly been known as destination and attractions, impairments, and landscape modifiers (Timothy et al., 2016). According to Timothy (2001) “tourist attractions related to borders and border areas include, but are not limited to, border-themed attractions, heritage tourism, vice (e.g., gambling, prostitution), natural attractions and international parks, shopping, political and socio-cultural difference across the border etc.” Baggio (2008) stated that, socio-ethnic and economic resemblances is the pre-condition for developing cross-border tourism. Dallen et al. (2016) stated that, borderlines display most of their appeal in six different ways. It includes interesting landscape such as walls, fences, tower and others; attempting to see the lifestyle of forbidden zone; attractions site separated by a border like a beach, archeological sites; natural and cultural sites divided by the border; border themed attraction facilities developed for commercialization; and thousands of examples where borders are remembered and expanded as heritage sites and attractions (Blasco et al., 2014; Timothy and Gelbman, 2015).

In most situations, cross-border areas have great tourism resource potential. They usually have a natural environment that is unusually well preserved. Mountain ridges and summits, rivers, lakes, and other natural locations that have traditionally functioned as a natural physical barrier to free passage are viewed and/or visited by tourists. People's attention is now being drawn to the aesthetic aspects of these natural resources, which are critical for the expansion of eco-tourism, as well as nature tourism, hunting tourism, photography, wildlife observation, and other types

of tourism. Anthropogenic tourism resources are also available. Typically, they are fortification facilities. The Great Wall of China is the most spectacular example in this regard. Church (2004) identified that “the greatest advantage of cross-border territories is the diversity they offer. Tourism is increasingly viewed as an opportunity for the economic revitalization of cross-border areas. In this connection, cross-border routes for cultural, wine, religious, natural and other types of tourism are being developed.”

This study was undertaken to address the potentiality of Bangladesh-India cross-border tourism based on the aforementioned literature review. Sunamganj is one of Bangladesh's most well-known tourist attractions, with thriving tourism industry. In Bangladesh, there is a lot of room for cross-border tourism. The natural and artificial tourism potentials of Bangladesh and India border territories are abundant. Tourists should take advantage of various pristine mountain peaks and monuments, rivers, rich local cultures, religious sites, and other unspoiled tourism features. Despite the foregoing, studies on the potential and competitiveness of cross-border tourism destinations in Bangladesh-India border regions have mostly been ignored. Recent studies have focused on the benefits and limitations, focusing on visitors in border regions. All of these point to an area with a lot of study potential. In this context, the current study examines the concept of border, discusses the relationship between tourism and cross-border territories, and assesses the potential for developing specific types of tourism in Bangladesh-India cross-border areas, with the Sunamganj border of Bangladesh serving as a case study/test project.

3. A Study on Tourism Potentials of Sunamganj Border Area in Bangladesh

3.1 Sunamganj has already established itself as a significant tourist attraction, having a favorable impact on its economy as the number of local and international tourists visiting the area has gradually increased. Sunamganj district, on the Bangladesh-India border, is rich in tourism attractions and has a lot of room for expansion in this industry. Sunamganj is one of the country's water-based (Hawor) districts, covering 3,669.58 square kilometers. However, with its natural beauty of lustrous green valleys and hill ranges covered in diverse flora and fauna, the fascinating blend of culture, glorious cultural and historical sites, religious sites, and traditional art and craft, this ancient district is in a highly advantageous position for tourism development. The tourism potential of the entire area is enormous, particularly in eco-tourism, religious tourism, heritage tourism, hill tourism, and rural tourism. Main tourism potentials of Sunamganj Border related areas are:

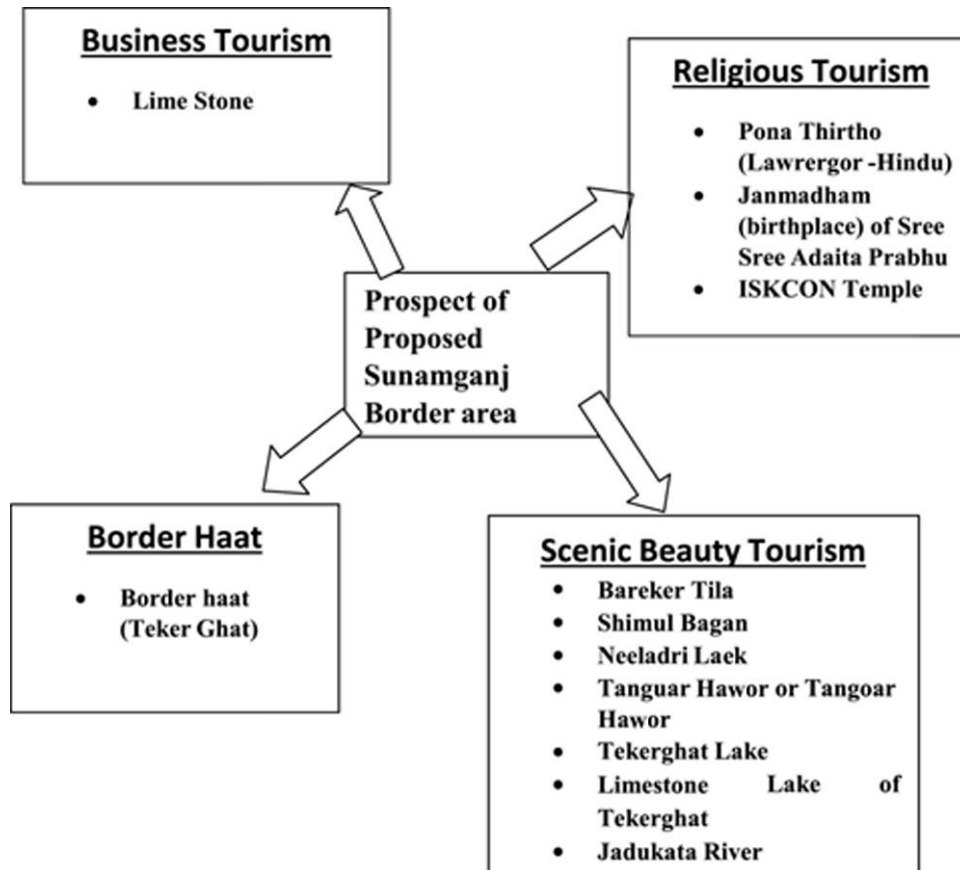


Figure 3: Proposed Perspective Plan for Tourism in Sunamganj Border Area; Source: (Author)

Sunamganj's mountainous border districts offer a lot of tourism potential. Several old temples, monasteries, forts, traditions and rituals, food, attire, and other features are noteworthy for promotion. Tekerghat Limestone Lake lies near the Tanguar Hawor, which is close to the Indian border. Once upon a time, there was a limestone quarry, but it is no longer operational. The Tekerghat Limestone Lake is located approximately 18 kilometers north of Tahirpur. In addition to this natural feature, Sunamganj has three other natural attractions. Tekerghat Lake's water is crystal clear. Quarrying the limestone resulted in the formation of this lake. On the other side of the border, in India, there is a comparable Lake. Indians typically take their baths on that side. The hill on that side features enormous limestone rocks, but they all belong to India. In Bangladesh, there are a few little Tilas that are possibly 20 feet tall. The beauty of local and exotic stones is eroding due to the unplanned lifting of stone today. Even then, the beauty of it is not low in emotions. Many tourists visit Takerghat, but do not go there due to lack of knowledge. There is Hindu Myth that

the Jadukata river which was created by Sree Sree Adaita Prabhu summoning all the holy waters. Sree Sree Adaita Prabhu Bari- A temple that stands on the bank of Jadukata river. From the foregoing it is evident that, the border district of Sunamganj have immense potential for tourism attraction.

3.2 Evaluation of Different Quality Aspects of Cross Border Tourism in Sunamganj Area

Table-1: Cross Border Tourism in the Destination

Tourism Factors	Mean	1	2	3	4	5	Total (%)
Cross-border tourism will positively impact on Growth or development.	04.74	00	00	01.2	034.9	063.9	100.0
Effective tourism Strategy is vital for developing cross-border tourism.	02.88	5.6	024.1	041.7	025.5	03.10	100.0
Participation of border area people in decision making on tourism should be encouraged.	04.21	00	01.2	07.0	063.3	028.5	100.0
Local residents attitude should be supportive for developing cross border tourism activities.	3.85	00	13.3	016.4	044.4	025.9	100.0

According to the above Table-1, the first factor tourism's impact on growth/development ranks top with a mean of 4.74, with 63.9 percent expressing a highly favorable impact. Tourism strategy factors had the lowest mean of 2.88, indicating a lack of awareness of important information.

The survey revealed that the tourism industry has been recognized as a tool of promoting border regions in the field of research. Respondents have a high level of understanding of the growth/development role of tourism in border regions. In both countries, the greatest rating was given to destination appeal, while the lowest was given to destination organization. In other words, there is no disagreement about the appeal of the destination. The sphere of destination organization, which includes destination growth/development initiatives and destination management, is more challenging.

4. Methodology

This study follows quantitative research approach. To achieve the research objectives, data was gathered from a variety of magazines, journals, newspapers, published and unpublished articles, reports, and various websites on the internet. In

addition, the authors visited several border tourist attractions in Sunamganj and assessed the border tourism potential. To evaluate potential about tourism in border destination in Sunamganj, a systematic questionnaire was developed. There were 17 questions in the questionnaire. The study's questionnaire was divided into three parts; the first part of the questionnaire consists of four questions on socio-demographic profile of the respondents, the second part of the questionnaire consists nine questions connected to the reasons for traveling to the cross-border area, and the third part of the questionnaire includes questions about quality aspects of cross border tourism in Sunamganj. The majority of the questions were on the 5-point Likert scale type. Data was collected using a self-administered questionnaire. Bangladesh and India had 150 and 60 respondents respectively, in the targeted samples. We received 133 correctly completed questionnaires from Bangladesh and 42 from India, with response rates of 88.67% and 70%, respectively. In this study, SPSS 25.0 was used to analyze the data and various statistical tools like; frequency analysis, percentage used to analyze the data.

5. Data Analysis

Table 2 shows that most of the respondents are male which is 71.5 percent and 28.5 percent of the respondents are female. 28.57 percent of respondents belong to the 41 to 50 age group, after that, 24 percent of respondents are above 50. Most of the respondents are highly educated as 58.28 percent have completed their graduation. In terms of income, 45.71 percent respondents earned almost 31000 to 40000 taka monthly.

Table 2: Socio Demographic Profile of the Respondents

	Frequency	Percentage
Gender		
Female	50	28.50
Male	125	71.50
Total	175	100.00
Age		
less than 20	5	2.85
20-30	42	24.00
31-40	36	20.57
41-50	50	28.57
Above 50	42	24.00
Total	175	100.00

Educational status		
Primary	11	6.29
High School	30	17.14
Higher secondary	32	18.28
Graduation	102	58.28
Total	175	100.00
What is your monthly income (BDT)?		
Below 10,000	8	4.57
10,001-20,000	26	14.85
20,001-30,000	30	17.14
30,001-40,000	80	45.71
Above 40,000	31	17.71
Total	175	100

Table 3 shows the respondents perception about the reasons for travelling cross border area. In this study, respondents shows that they travel border area for cheaper price of goods and services which gets highest mean score (4.34). In terms of safety and security in border area gets the lowest score (2.21).

Table 3: Respondents assessment of the reasons for visiting Cross-border area

No.	Statement	Mean	Standard Deviation
1	I travel in border area because of cheaper price of goods and services	4.34	1.09
2	It is a better place for rest and relax	2.30	1.14
3	To explore new culture and heritage sites	4.22	.980
4	Border area is safe for travel as there are adequate safety and security systems	2.21	1.01
5	To visit friends and relatives	4.57	1.23
6	To get away to reduce stress and pressure	3.89	.85
7	To attend sports events	4.01	1.45
8	To attend indigenous festivals and fairs	4.67	1.76
9	To attend the religious festival in border area	3.4	1.11

6. Findings

The result of the study shows that; Tourism is a major industry and a driving factor for area development. In this way, it can simulate a new spatial arrangement of border regions such as Bangladesh's Sunamganj border area. Furthermore, it reveals that, Cross-Border Tourism is flourished by creating job opportunities for the local

people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationship. Thus, Cross-Border Tourism as a part of Cross-Border Trade help develop better Border Management between Bangladesh and India.

7. Discussions of the Findings

7.1 The border between Bangladesh and India

The very geostrategic location offers Bangladesh to become a communication hub between South and Southeast Asia on communication, economic, cultural, and political issues with her bordering countries which make her borders important to neighbours. The Bangladesh-India border is the world's third-largest. Bangladesh and India share a large land border of 4096 kilometers, where in India mostly surrounds. The interdependence of border area people, who have large amounts of exchanges of goods and services, and life as a whole in the context of socio-economy and socio-culture, including Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) and so on, demonstrates the interdependency of border area people. As a result, cross-border trade occurs in those areas in a variety of forms, including formal, informal, and quasi-formal border trade. In the Bangladesh-India border region context, cross-border tourism can play an important role as a part of trade in services.

The Indo-Bangladesh border is densely populated, particularly in Bangladesh's southwest and north western regions. Furthermore, the border is extremely circuitous and does not follow any natural barriers, meandering through villages, rivers, and agricultural lands. All of these adds up to a border that is extremely porous. Bilateral trade between Bangladesh and India has an impact on the economies that thrive around the border. The impact of this trade on both countries' local economies has its own set of benefits and drawbacks. The economic status of the local inhabitants in the border area has improved as a result of the favorable business climate. Poor transportation and B2B connectivity are a major stumbling block to both countries' trade competitiveness and growth. Another flaw in bilateral trade is the absence of diversification in their respective trade baskets. Bangladesh's exports to India are dominated by labor-intensive manufacturing, whereas primary commodities dominate its purchases from India.

Bangladesh and India engage in three categories of bilateral border trade. Border trade can be classified as formal, informal, or quasi-formal. For example, cross-border 'informal trade' in agricultural items, primarily between India and Bangladesh, is dominated by cattle traffic. 'Formal border trade' includes coal, stone etc imports from India. Improving trade with Bangladesh will alleviate many of India's concerns about economic segregation of its north-eastern regions and provide new market

opportunities for small-scale traders from the country's backward hinterlands. With expanded trade opportunities with India, Bangladesh will have access to new areas of cooperation, investment, and development opportunities. It is worth noting that, a variety of non-tariff barriers have made this trade prohibitively expensive, making many high-potential commodities unfeasible.

7.2 Potential Trade in Services

A wide range of trade in services, including education and vocational training, tourism, and health care, should be traded between the two nations. Bangladesh could propose transferring technology, particularly in electricity and infrastructure, transportation, information and communications technology (ICT), health care and pharmaceuticals (HCP). India and Bangladesh can potentially trade in tourism as a potential service activity. This industry boosts the country's GDP and opens doors for other businesses, such as transportation, restaurants, hotels of various kinds, tour guides, and financial institutions. The number of Indian tourists visiting Bangladesh has remained stagnant despite the fact that this industry offers so much potential for improving India-Bangladesh ties. Many factors might account for this, including the low per-capita income of border residents, infrastructure problems, security concerns, and more. However, it's important noting that both nations have finally realized that they must work together to bridge the gap between them.

7.3 Scope for Greater Border Tourism in Bangladesh-India Land Border

In Bangladesh, there is a lot of room for border tourism. The natural and artificial tourism potentials of Bangladesh's and India's border territories are abundant. Tourists should take advantage of various pristine mountain peaks and monuments, rivers, rich local cultures, religious sites, and other unspoilt tourism features. According to this study, tourism and hospitality in Bangladesh border areas can provide benefits that stimulate border growth. Tourism creates jobs, boosts the local economy, helps to raise the local population's standard of living, and improves investment prospects in new businesses; to name a few benefits. Tourism supports cultural exchanges by enhancing cultural heritage, promoting natural parks, increasing leisure options, expanding recreational facilities, and facilitating cultural exchanges between visitors and hosts. With the foregoing in mind, this study will focus on the possibilities for cross-border tourism between Bangladesh and India. Bangladesh and India's border destinations have a lot of tourism potential since they have a lot of historical monuments, religious structures, mountain peaks, scenic beauty, wildlife, and local cultures. As a result, there is a critical need to encourage tourism education among locals as well as the development of rudimentary tourism infrastructure in the various Bangladesh-India border regions.

7.4 Cooperation in Cross-Border Tourism in Bangladesh-India Border Context

Cross-border tourism in the Bangladesh-India border regions is reliant on the two nations' collaboration and engagement. Tourism benefits these areas by improving the regional economy and creating jobs. The rise of the tourism industry has contributed to develop socio-economic growth in border area. As a result, cross-border tourist collaboration plays a significant role in social and regional development. In the context of Bangladesh-India cross-border tourism, it may be contributing to:

7.4.1 Regional economic development along the Bangladesh-India border. In the Bangladesh-India border areas, tourism is a relatively new business sector. Its deployment contributes to the regional economy's diversification and provides an opportunity to earn more revenue and new economic activities.

7.4.2 Regional labour market development in Bangladesh-India border regions. Tourism is a labor-intensive industry that impacts employment levels by producing new jobs and providing alternative work opportunities. Simultaneously, it promotes the development of new professional abilities and knowledge transfer.

7.4.3 Infrastructure and facilities related to border tourism in the Bangladesh-India border regions are being modernized. The tourism industry requires the availability of appropriate infrastructure and related services, such as road networks, airports, rail tracks, telecommunications, tourist information centers, hotels, and recreational and entertainment facilities. Intuitively, efficient services (public transportation, healthcare etc) and markets and shops are essential.

7.4.4 Attracting investors and distributing business throughout the Bangladesh-India border region. The socio-economic expansion that results from tourism dynamics is a significant instrument for influencing and establishing a higher standard.

7.5 Challenges of Cross-Border Tourism in Bangladesh-India Border Context

Along with the advantages and positive consequences of cross border tourism in Sunamgonj border area under the overall context of Bangladesh-India border regions, there are several challenges related to cross border tourism which are as following:

7.5.1 There is a scarcity of high-quality research on the tourism sector and analyses of the region's strengths and weaknesses. It is hard to identify common objectives and develop guidelines for forming/creating a innovative differentiated tourism product and making efficient use of tourism infrastructure and services without such in-depth research.

7.5.2 On both sides of the Bangladesh-India border, potential tensions between tourism and other sectors of growth, particularly in the event of mass tourist. This is due to a tendency to place too much emphasis on tourism, resulting in dependency and imbalance in regional economic infrastructure, as well as inconsistencies connected to severe environmental impacts and erosion, and also lack of incorporation of local culture and way of life.

7.5.3 Lack of cross-border network-linkages between public institutions, tourist support agencies, and other organizations (including commercial legal entities) to support joint efforts to manage benefits and invest in new tourism products and markets.

7.5.4 Access to the Bangladesh-India border areas is hampered by deficiencies in transportation and economic infrastructure, both of which are necessary for tourism growth.

7.5.5 Lack of skilled manpower in this sector. It is required to provide high standard of tourism services in the Bangladesh-India cross-border region.

7.5.6 Appropriate target market segment selection and delivery of a comprehensive range of high-quality tourism services in the Bangladesh-India cross-border region.

8. Recommendations

A few ideas for harnessing the untapped tourist potential in Sunamgonj border area under the overall context of Bangladesh-India border region are given in the following paragraphs:

Border tourist sites must be equipped with the necessary infrastructure to facilitate the development of tourism-related services such as transportation and telecommunications. However, border destinations should be promoted through the internet, newspapers, magazines, journals, television programs, and other media. In order for the locals to reap the advantages of tourism and contribute to the growth of tourism, the host community must participate in tourism awareness programs at the appropriate time. There should be a variety of tourism-related festivities in border regions in an effort to enhance visitor flow. At the same time, in order to ensure the safety and security of the anticipated visitors, the government should take immediate action. Traditional border roads/railways between India and Bangladesh may be reopened to facilitate cross-border tourism.

In addition to promoting the border as a tourist destination, travel agencies should also include these border tourist sites in their packages. In the border areas, there are many heritage structures in a state of disrepair and need to be preserved.

Museum should be built in the border areas to preserve and highlight the area's distinctive heritage. In order to attract tourists from across the border, effective road connection is essential. A major problem in border destinations is a lack of adequate lodging which need to be addressed. In order to enable travelers to experience and enjoy a different kind of natural beauty, authority concerned should arrange and organize places having natural beauty with flora and fauna. More extensive scholarly engagement in this sector could help peripheral border regions to achieve favorable economic and social growth.

9. Implication

Cross-border tourism is a new concept for Bangladesh's tourism industry. This study was conducted on the Bangladesh-India border area which is located in Sunamganj. However, this study will significantly contribute to the future research of cross-border studies. Thus, this study is the qualitative pilot study regarding this topic. On the other hand, this study will guide the policymakers to develop tourism facilities in the cross-border area. Appropriate policy needs to be developed to address the current issues identified in this study like; developing tourist facilities in border areas, improving safety and security as peats, developing tourism manpower, and creating network with neighboring countries.

10. Conclusion

Tourism is predicted to become a major industry and a driving factor for regional development in Asia. In this way, it can simulate a new spatial arrangement of border regions such as Bangladesh's Sunamganj border area. The development of such cross-border tourism is a sign of the international integration process. Furthermore, cross-border tourism and hospitality education among local people and infrastructure development are critical to achieving Bangladesh's tourism development goals which needs to be fostered. There is also great potential for the development of tourist circuits. Aside from the above-mentioned tourism potentials, the cultures of the border areas of Bangladesh are also quite appealing and unique. Endowed with bountiful variety of tourist attractions, Bangladesh-India border destinations offer vast potential for growth in tourism sector especially with spectacular sights that provide visual delight. The result of the study state that, Cross-Border Tourism is flourished by creating job opportunities for the local people through income generation. This also builds up Business to Business (B2B), Business to Consumer (B2C) and People to People (P2P) connectivity through intimate relationship. Thus, Cross-Border Tourism as a part of Cross-Border Trade can help develop better Border Management between Bangladesh and India.

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THE ROLE OF GREEN MARKETING FOR GREEN BRAND RELATIONSHIPS: A CONCEPTUAL UNDERSTANDING

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Abstract

The goal of the study is to focus on conceptual understanding of Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional Value, and Green Brand Relationships in banks, MFIs, Insurance, & others. The numbers of past research on Green Brand Relationships in different sectors in the worldwide side by side in Bangladesh framework directed on issues (like Brand Knowledge, Brand Attitudes, Brand Equity, Brand Trust, Brand Image, Brand Preferences, etc.) but the aspects of the role of green marketing for Green Brand Relationships was overlooked. The hypothesized theoretical framework which is developed based on the existing literature has examined the role of Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional Value on Green Brand Relationships. This study thus extends existing knowledge by highlighting the mediating role played by green brand bonding and moderating role played by emotional values in determining green brand relationships. In addition, Emotional value also has a significant moderating role in shaping the Green Brand Relationships. The potential outcome of this study mostly will encourage the marketing practitioners, bankers, government, researchers, MFIs, and Insurance firms in developing more environmentally conscious or eco-friendly marketing policies and stimulate them to incorporate in social, economic, and environmental issues.

Keywords: Green Marketing Functions, Green Brand Management, Green Brand Bonding, Emotional value, Green Brand Relationships (GBR), and Banks.

1. Introduction

Green Brand Relationships is related with the green product needs satisfaction of environmental desire, environmental performance, sustainable expectations, brand trust, credibility, generosity, and examine the interconnections of customers' loyalty to buying green products. (Chen, 2013; Martínez, 2015). Greenmarkets achieve a sharp worth in business revenues through effective environmental sustainability promotions and consumption of green brands (Lin et al., 2017; Papista & Dimitriadis, 2019). The more consumers are aware of the environment, the more preference to buy environmentally promising products (Barbarossa & de Pelsmacker, 2016). In comparison to non-green products/brands, the consumer's positive impression and association with a green brand are the most crucial predictor of purchasing green items (Schiffman et al., 2014). Consumer willingness drive to purchase green

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products based on experience, awareness, and positioning about the green brand (Wang et al., 2014). Appropriate positioning and strategic advertisement about green brands traits in order to entice added green consumers (Huang et al., 2014). Green Market of Natural Cosmetics will be valued at over \$54 billion by 2027 (Statista, 2022). Literature on green marketing identifies the significance of green brand benefits in the discipline of self-awareness aids on consumer mindset and buying intents (Hartmann et al., 2012). Consumers' lives are influenced by the brands of values they search, the image they develop, the sentiments they realize and dispense with the properties which are kept in the mind (Janiszewski et al., 2017). In a service context, relational benefits are those added values attached within service offerings that provide more performance than the core service offerings (Gwinner et al., 1998). Consumers' values have a favorable effect on relationship excellence and loyalty to the green brand (Papista et al., 2018). Green brand offers a specific value confined of environment ethical, philanthropic and expected level performance which reinforce consumers towards green brand (Ahmed et al., 2015). The relational benefits approach suggests that the service receiver and provider should be benefited from the relationships (Hennig-Thurau et al., 2002). In competitive market green branding divert customers' attention from non-green to green (Kang et al., 2012). Brand relationships are one of the active marketing components of securing and understanding the customer's (needs, wants, & demands) values and responding accordingly (Avery et al., 2014).

As a result, several sectors are appreciating the ecological, economical, and ethical benefits of integrating green strategies into business processes. (Deveau, 2009; Choi et al., 2008). In existing literature shows that industries concern for green marketing and green brand relationships are hotel and tourism, lodging services, cosmetics, organic vegetables and rice, home appliances, vehicle equipment manufacturers etc. (Bashir et al., 2020; Mishra, 2019; Hasim Zameer, 2019; Zvezdana, 2018; DP Alamsyah, 2018; Chen, 2018; Martinez, 2017). The literature shows that few services sectors are slowly going to the concept of green marketing and ensuing this concept in service sectors may build a long-term green brand relationship. Thus, emergency of adopting in the competitive business environment, the banking segment should take part in the ecological development process for sustainability. Green banks are just getting started in Bangladesh particularly in the green marketing context. However, since they have begun to implement green initiatives, Bangladeshi banks are still missing out on a number of opportunities to green their operations, particularly in terms of developing and maintaining a green brand and relationships respectively (Habib et al., 2014). Because relationships quality direct towards stronger buying/consumption behavior (De Cannière, De Pelsmacker & Geuens, 2010), where green behavioral intent is the implicit result of a healthy brand relationship with consumers which can lead to greater loyalty to green brands (Wieseke et al., 2012).

Preceding literature suggests that firms' marketing departments develop a proactive eco-orientation approach for ecological values, commitment, esteem, and environmental stewardship. Important inference for the practitioner's investment in environment-favor technology lessens the costs of buying hazardous materials and no customer complaints might improve overall economic performance in the form of market position, sales volume, and profit rate (Lin et al., 2013). Henceforward, the intent of this research is to demonstrate the mediating role of emotional value among Green Marketing Functions, Green Brand Management, Green Brand Bonding, and Green Brand Relationships.

Thus, the principal plan of this investigation would be to review the writing of Green Marketing Functions, Green Brand Management, Green Brand Bonding, and Green Brand Relationships to build up a theoretical structure. This investigation is likewise led with the end goal of recognizable proof of examination gap with regards to Banking area so the executives can improve Green Brand Relationships through fulfilling Green Marketing Functions, Green Brand Management, Green Brand Bonding and Emotional Value (Becerra & Badrinarayanan, 2013; Kang et al., 2012; Liang et al., 2008).

2. Literature Review

2.1.0 Green Brand Relationships

The Consumer Brand Relationships (CBR) concept is highly prioritized by marketers in all types of sectors and markets worldwide (Keller, 2014). Now a day's due to the diffusion of green products the attention of academicians and corporate professionals swing their attention from the initial buying to long-term & repeat consumptions (i.e. formulation of healthy & justifiable relationships between the consumer and the green band), This orientation transit relationship development from green product development to the green brand which specifies attributes and benefits attached with the product's minimized environmental negative effect and formulate strong brand equity and competitive advantage over its rivals (Hartmann et al., 2005; Lin et al., 2017). Green brand product qualities are consisting of ecological, i.e., biodegradable, recyclable, low pollution, etc. (Chen et al., 2015).

Green Brand creates value with offerings environmental favored product design, performance, and decent in nature which encompasses positive buying attitudes to the brand (Ahmad et al., 2015). Green branding strategy may differentiate and gain competitive advantages over rivals (Liu et al., 2020). Periodically researchers have identified different attributes and benefits that positively enhance consumer-brand relationships (Orth et al., 2004). Relationships have a justification that is administered by various sentiments like promises, desires, and familiarity with others (Sternberg, 1986; Alvarez & Fournier, 2016). Affectionate attitudes towards brands

activate relationships. (Wallace et al., 2014). Emotion, symbolic aspects of a brand create identity and belief which create a pool of relationships to the brand (Fetscherin et al., 2015; Sketh, 2017). Nevertheless, Durable confident brand relationships may create customer representatives who convey the positive Word of Mouth (WoM) and create new customers (Wallace et al., 2014) to numerous spectators through different message conveying tools (Karjaluoto et al., 2016), Create flavorist in social groups such as in a household (Iyer et al., 2016) and the readiness to form particular brand society (Wallace et al., 2014). All these boost up the brand performance and will minimize the excuse of the brand (Henger et al., 2017). Brand's better economic performance is the pinpoint for the managers concerned in evolving and keeping encouraging strategies for maintaining brand relationships (Dessart et al., 2015). A brand that is consistent with consumer belief, self-image, keen and clear psychological map may build a durable and solid relationship between consumer and brand (Kaufmann et al., 2016).

2.1.1 Green Marketing Functions

Green marketing consists of all doings formulated and offered any exchanges planned to fulfill customers' needs and wants, in such manner, the pleasure of those desires and wishes happens with a minimum harmful effect on nature (Polonsky and Ottman, 1998). Multiple creativities are required to fulfill these human needs and wants in an environmental familiar means includes product modification, sustainable packaging and advertising, among others. It has become progressively necessitates to introduce environmental marketing efforts at each level of the firm. Green Marketing means, Products and Services are developed and promoted in a manner that satisfy customers' needs who favors products of high quality, performance and available at reasonable price in addition do not have any harmful influence on the environment (Mishra & Sharma, 2014). Green marketing has emerged as a major area of concern for both businesses and society as a whole in recent years. This is quite similar to the original marketing; the only exception is that it incorporates market strategies such as the creation, differentiation, pricing, and promotion of environmentally friendly goods or services that suit consumers' environmental needs (Ansar, 2013). Green marketing encompasses a wide range of acts that include modifications to the manufacturing process as well as variations to product lines, advancements in packaging, and the transformation of advertising (Arseculeratne & Yazdanifard, 2014). Pride and Ferrel (1993) described the activities of a business to create, advertise, price, and distribute eco-friendly products. Kotlar & Zaltman (1971) classify that green marketing as a form of social marketing. Green marketing success requires that the firm must follow four "S" standards (Peattie, 1995). Four "S" refers – Satisfaction, Safety, Social acceptability, and Sustainability. At the operational

level of marketing management, the green marketing strategy involves the combining or mixing of marketing activities such as green product design policies; green distribution policies; green product costs; and green advertisements, support, and promotional methods (Camino, 2007). Mixed green marketing consists of broad range of functions like, modifications to the product, production process, packaging and advertising (Esmailpour & Imamgholi, 2014). Marketing mix elements are the pillar of all marketing functions of a company (Rex & Baumann, 2007).

2.1.2 Green Products

A product is called green when its social and environmental impact during production, usage, and discarding has been minimized in comparison with other competing products (Dangelico et al., 2010). Green products are known as environmentally responsive products (Tan et al., 2016). Green products are associated with a course of action considered during the manufacturing process to protect the environment by using less material, energy, and producing fewer pollutants (Dangelico & Pujari, 2010; Leonidou et al., 2013). Furthermore, a green product needs less power and capital, which results in producing additional by-products and reduced pollution throughout the product's lifespan (Song-Turner, 2014). The green products typically have the potential to be repaired, replaced, recycled, reused, and/or reconstructed (D'souza et al., 2006).

2.1.3 Green Price

Green pricing is a term used to denote the economic and environmental costs of a company's production and marketing (Leonidou et al., 2013). Green price has been defined as the regulatory price for green products in a way that balances the consumer's sensitiveness to cost and tendency to pay extra for products that are aligned with the environment (Laroche et al., 2001). Green products must secure the environment by ensuring a balance between the price paid by the consumer and the satisfaction with the product even at a higher cost (Grove et al., 1996). Green prices can also produce a reasonable profit for companies while simultaneously providing a high level of value for customers. A price strategy is also employed for product packaging in order to acquire a competitive pricing advantage (Song-Turner, 2010). Green production has more expenses than conventional production, resulting in higher green pricing. Customers have to pay a premium for green products in comparison to traditional products. Customers who respect environment-friendly products agree to pay a premium for them (Trujillo et al., 2014). Product lifecycle costs from the research and development to disposal should be strategic for a sustainable pricing perspective (Katsikeas et al., 2013).

2.1.4 Green Place

Green place refers to a management approach that focuses on supplying environment-friendly products from producers to customers (Davari & Strutton, 2014). In reducing the environmental influence of the supply chain, green places or green distribution finds the most eco-friendly locations for distribution facilities, and final retail outlets (Trujillo et al., 2014). It is critical for the company to make decisions on how and where the green product should be distributed and become available (Davari & Strutton, 2014). The green distribution must be accompanied by reduced pollution and resource consumption when delivering these products to the market (Eneizan et al., 2016) green place states that green supply to choose of channels that produce less environmental contamination. Then, partnering with channel members is valuable for developing the process for product recycling and removal and also, to make an arrangement for the consumer with the assistance to recurrence biodegradable supplies (Eneizan et al., 2016).

2.1.5 Green Promotion

Green promotion is a significant component of the green marketing mix (Davari & Strutton, 2014). Green promotion is a type of communication that aims to convey to stakeholders about the company's strong efforts, dedication, and accomplishments in the area of environmental preservation (Dahlstrom, 2011). It's a marketing strategy that emphasizes the environmental aspects of a company's operations and processes in order to raise awareness of the company's environmental initiatives and the demands of environmentally conscious customers (Wong et al., 2014). Consumers can be influenced by advertisements and advertising messages that represent a company's environmental commitment or protection (Camino, 2007). Advertisers should communicate the appropriate message to the consumer about the functional benefits of the green product (Chockalingam et al., 2016). Face-to-face communication and social media promotion are more effective for developing brand trust than a paid advertisement (Isreal et al., 2016).

2.1.6 Green People

Good Business Journey Report (2018) sated green people teaches and inspires its workforces, consumers, and dealers on the importance of environment friendly manufacturing and consumption practices. The notion of "green people" comprises cultivating a green attitude and putting it into practice in daily activities (Millar et al., 2012). Human Resources working in the organization have to commit for implementation process of green activities (Malhotra et al., 2012). Employees must be well trained and educate about green marketing according to customers' needs and environmental concerns (Eneizan & Wahab, 2016).

2.1.7 Green Process

Green processes entail eco-labeling supplies and eco-certifying warehouses using ISO 14000 procedures that adhere to eco-labeling principles in raw materials, manufacturing, logistics, transport, warehouses, stores, and offices (Yeo et al., 2010). Transformation and confirmation of the green policy in the service delivery process (Eneizan et al., 2016).

2.1.8 Green Physical evidence

Skeptical and environmental concern consumers want physical evidence in goods and services. Green marketers need to confirm this issue through Eco-brand and differentiate green services from non-green services (Warrink, 2018).

2.2.1 Green Brand Management

According to the American Marketing Association (2012), "Brand management is the process of focusing on planning, coordinating, and regulating a brand through target-oriented marketing functions." In 2001, Hislop describe branding as "the process of creating a relationship or a connection between a company's product and emotional perception of the customer for the purpose of generating segregation among competition and building loyalty among customers." Brand management associates' consumers with different premium offers and empowers the company to charge more from loyal customers. Green brands are able to meet the needs of consumers in a way that increases their own satisfaction (Barbarossa & Deplelsmaeker, 2016). The consequences of the activities build strong brand bonding and relationships with the targeted customers.

2.2.2 Green Brand Knowledge

Consumers having knowledge about green products are willing to buy the product in the future (Smith & Paladino, 2010). The positive attitude of consumers towards a particular brand depends on the way the marketers deliver environmental information to the consumers (Chang et al., 2015). Firms should provide trustworthy green information for educating consumers that will improve consumers' green environmental knowledge and purchase the brand (Ganapathy et.al., 2014). More environmentally knowledgeable consumers are more concerned about global protection and purchase green brands (Suki, 2016). Green customers group formation is enhanced by speeding up the green products traits, advertising, and advanced marketing efforts (Huang et al., 2014). The uniqueness of promises and attributes of green products develop green brand knowledge (Suki, 2016).

2.2.3 Green Brand Attitudes

Green brand attitude can be separated into two classes: one that emphasizes functional features and another that emphasizes emotional advantages (Hartmann & Ibanez, 2006). Green brand should meet customer's expectations according to the valuable qualities the brand is positioning in the market and to the customers (Wang, 2016). Affective, Behavioral, and Cognitive components are largely associated with developing attitudes towards a particular object/ green brand (Breckler et al., 2006). An Eco attitude originates from an individual self-concept, environmental focus, and consciousness of the natural environment (Axelrod et al., 1993). Also, Brand attitudes of individual consumers instinctive sentimental feedback towards an item, which is one's personal sensation for the whole brand (Abimbola et al., 2012).

2.2.4 Green Brand Preference

Environmentally concerned consumers prefer to buy environmental products (Barbarossa & de pelsmacker, 2016). Green customers group formation is enhanced by speeding up the green products traits, advertising, and advanced marketing efforts (Huang, Yang & Wang, 2014). Social acceptance pressure increases the preference of purchasing a brand (Braun et al., 2016).

2.2.5 Green Brand Image

Dichter (1985) recommended that brand image denotes that through observation and consumption a consumer builds the full set of concepts about products or services. According to Bullmore (1984), brand image pertains to a consumer's psychological picture of the product and encompasses beliefs, insights, state of mind, and attitude. Brand image is the consumers association of brand recognition, belongingness, and trial (Shabbir et al., 2017). A brand image is a type of consumer's intangible and tangible perceptions or linkages to a brand that is generated by the cognition, affection, and evaluative processes of consumers (Nyadzayo et al., 2016). Brand competitiveness is enhanced by a strong brand image (Severi & Ling, 2013). Consumers' favorability and knowledge represent their overall notion about a particular brand and Brand Image is one of the significant factors of buying decision (Budiman, 2016). Chang and Fong (2010) suggest that the most important drivers of green brand image are green product quality, green corporate image, green customer satisfaction, and green customer loyalty.

2.2.6 Green Brand Trust

Trust step-up the customer loyalty (Papista et al, 2018). Brand loyalty is the outcome of brand trust (Alhaddad, 2015). Trust is the significant ingredient of brand-consumer relationships (Chen, 2010; Lien et al., 2015) described that trust

characterizes the grade of composure that alternative party would perform as likely. Trust is an actual way to diminish insecurity or mitigate the foundations of hesitation (Pavlou et al., 2007). Consumer trust is a significant element for long-term attachment of customer behavior (Lee et al., 2011). Consumer purchase intention is depending on consumer trust and ability of buying (Heijden et al., 2003). In green marketing, a high level of trust will lead to a rise in brand equity (Akturan, 2018).

2.2.7 Green Brand Loyalty

Brand loyalty is the level of a consumer's devotion to a particular brand. This is an important outcome variable (He et al., 2012; de Villiers, 2015). Loyalty has been studied as both attitudinal and behavioral loyalty by looking at how often people buy goods and services (Kressmann et al., 2006; Romaniuk & Nenycz-Thiel, 2013). A brand loyal customer goes through a series of steps cognitive, affective, conative and conclusive with behavioral pattern (Oliver, 2016). Customer loyalty is directly related and depended on the trust a customer has towards the company or product (Martínez, 2015). Green Brand Loyalty depends on the promotional strength of environmental attitude and sustainable promises made towards a brand (Chen, 2013). Green Brand stimulus consists of green trust, green satisfaction and self-brand association (Lin et al., 2017). Brand loyalty is followed by satisfaction (Menidjel et al., 2017). Brand loyalty favors commitment to repurchase (Rahi et al., 2017). Satisfied consumer's recall brands (Chen, 2010). Satisfied consumers repeat green product purchase those who have environmental consciousness (Suki, 2016). Satisfaction is a psychological map consumer experience with particular products or services (Giebelhausen et al., 2016). Brand Confirms a social bond among the family, community and cultural groups (Veloustsou & Guzman, 2017). Symbolic benefits of brand have an influence on emotional consumer relationships (Butt et al., 2017).

2.2.8 Green Brand Equity

The set of possessions, obligations, names, symbols, and signs which improve worth or withdraw merit from a product or service is called brand equity (Aaker, 2005). In 2010, Chen in his writing first introduced the concept of green brand equity. The driving force of green brand equity is green brand image, green satisfaction, and green trust (Chen, 2010). Green Brand equity is ecological in nature so that customers always keep in mind the green value and the brand (Papista & Krystallis, 2013). Brand equity is the composition of consumers' attitudes to the brand, perceived superiority positions, brand personality, brand image, and brand awareness (Buil et al., 2013). Inanition brand image, perceived quality, brand awareness, and brand loyalty are the determinants of consumer-based brand equity (Girard et al., 2017). Brand equity is the unique brand association the consumer has about a particular product or service and Currently Brand equity dimension is one of

the significant indicators of marketing performance (Veloutsou et al., 2017). Green brand equity dimensions are Green Brand Image, Green Brand Satisfaction, Green Brand Trust, Green Brand Loyalty, Reference Group & Green Advertisement (Khandelwal et al., 2019).

2.3 Emotional Value

Emotional value is the affection that arises in consumer psychology from the particular products or service usefulness (Sheth et al., 1991). An influence of benefits in the consumer mind originates from a good or service (Sweeney et al., 2001). Positive, Negative, and Mixed perceptions of purchase decisions arise among consumers for distinctive personal value experiences (MacKay, 1999). When Brand Building strategy reaches consumers expected performance might create emotions like appreciation, pleasure, delights, melancholy, glory, motivation, dependability, honor, and affection can outcomes. On the other hand, if the strategy implications failed; an impression in the consumer's mind such as dread, worry, awkwardness, guiltiness, humiliation, dislike, remorse, and anger may result (Park et al., 2018). Consumer optimistic attitude encourages pleasant and repetitive green purchase, also formulate feeling belongingness and responsiveness towards environment protection. (Lin & Huang, 2012; Rex & Baumann, 2007). Symbolic benefits of the brand have an influence on emotional consumer relationships (Butt et al., 2017). Affectionate attitudes towards brands activate relationships (Chernatony et al., 2014).

2.4 Green Brand Bonding

Bonds are the process of physical, emotional, and economic links in a relationship which is elevated by collaboration and communication and tie-up parties collectively in an interpersonal exchange (McCall et al., 1970). Prior research abstracted bonds are two types structural and social (Han, 1992). In addition, functional bonds influence the public to link up in a relational exchange (Wilson, 1995). Chiu et al., (2005) proposed three types of bonding; Economic, Social, and Organizational. Financial bonding stands for stimulating interest groups through monetary or financial incentives, structural/organizational bonding refers to the rules, standards, norms, or procedures pertinent to the structure in relational exchange formulate relationship (Chiu et al., 2005; Liang et al., 2008). Social bonding reflects belongingness shared by firms and stakeholders (Ramström, 2008; Cater et al., 2009). Buyer-seller relationships are the foundation of relationship marketing (Liang et al., 2008; Chiu et al., 2005). Relational bonding improves interpersonal interaction and coordination among exchangers (Adler & Kwon, 2002; Tsai, 2002). Green Brand confirms a social bond among the family, community, and cultural groups (Veloustsou & Guzman, 2017).

2.5 Objectives of the Study:

The objective of the study has been categorized in two ways broad objective and specific objectives as follows;

2.5.1 Broad Objective:

The conceptual understand of Green Marketing role for Green Brand Relationships in business organizations.

2.5.2 Specific Objectives:

- i. To identify the influence of green marketing functions, green brand management for green brand bonding and green brand relationships;
- ii. To determine the impact of green brand bonding towards green brand relationships;
- iii. To determine the mediating effect of green brand bonding on green brand management and green brand relationships; and
- iv. To examine the moderating consequence of emotional value on green brand bonding and green brand relationships.

2.6 Green marketing functions, green brand management, emotional value, green brand bonding, and Green Brand Relationships.

There is an interdependent relationship in-between green marketing and Brand (Keller, 1993). In a competitive market for building a strong green brand, marketers need to green all elements of the marketing mix (Kang & Hur, 2012; Polonsky, 1994). A Brand becomes green when it creates a positive concept in the consumers' minds about eco-friendly emotion, attitudes, and actions (Ng et al., 2014). Consumer attitudes shaped from the brand image possess in mind and enhance brand equity (Buil, Martínez, & de Chernatony, 2013; Yoo et al., 2000). Brand knowledge defends brand equity (Ng et al., 2014). Brand trust is the main component of brand-consumer bonding. Brand equity and brand trust step up the customer's loyalty (Papista et al., 2018). Brand loyalty is the outcome of brand trust (Alhaddad, 2015). Brand loyalty favors commitment to repurchase (Rahi et al., 2017). Brand loyalty is followed by satisfaction. (Menidjel et al., 2017). Satisfied consumers repeat green product purchases those who have environmental consciousness (Suki, 2016). Brand confirms a social bond among the family, community, and cultural groups (Veloustsou & Guzman, 2017). Emotional value has substantial effects on green consumers and the green product buying process (Lin & Huang, 2012; Gonçalves et al., 2016). From these earlier reviews, a theoretical framework has been established, and hypothesized the follows;

Hypothesis (H₁): There is a positive effect of green marketing functions on green brand management and green brand bonding.

Hypothesis (H₂): Green marketing functions have a substantial positive effect on green brand bonding.

Hypothesis (H₃): Green brand management has a positive association with green brand bonding and green brand relationships.

Hypothesis (H₄): There is a positive extensive impact of green brand bonding on green brand relationships.

Hypothesis (H₅): Green brand bonding has positively mediated green brand management and green brand relationships.

Hypothesis (H₆): Emotional value has positively moderated the relationship between green brand bonding and green brand relationships.

3. Theoretical Framework

For this investigation, a reasonable structure has been proposed as demonstrated in figure 1. The approach received is reasonable demonstrating to introduce a fresh structure that features the huge indicators of green brand bonding in the banking sector of Bangladesh. To shape this reasonable structure, a careful writing survey in, green brand management, green marketing functions, green brand bonding, emotional value, and banking area has been directed. Extraordinary accentuation has been given to examines directed with respect to the Banking sector.

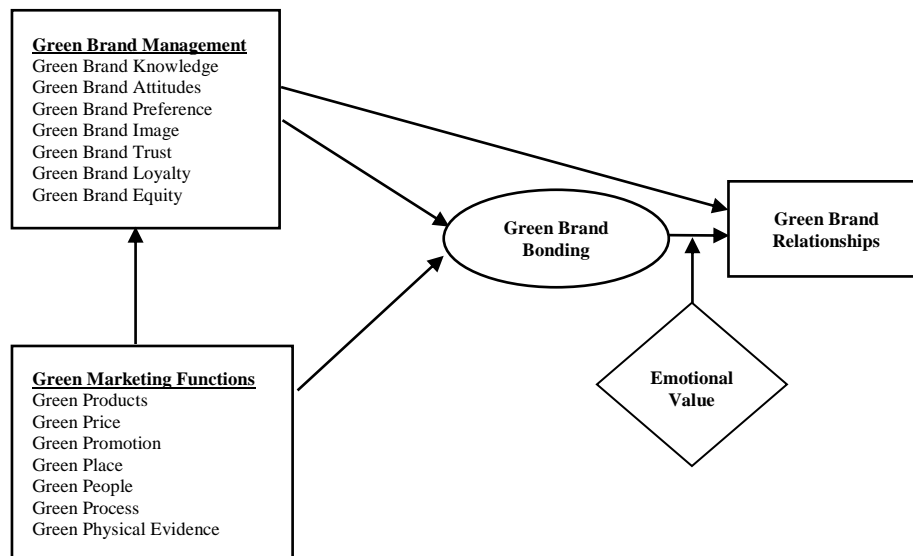


Figure-01: Hypothesized Theoretical Framework

Source: Based on Literature Review

Mediating variable postulates in what way (or mechanism by which) an assumed effect occurs (Baron et al., 1986). Also, Shadish and Sweeney (1991) defined, the mediator determines the outcome because the independent variable generates it. In

this theoretical framework, support of mediating variable can be assumed if: independent variables (Green Brand Management) are connected to the dependent variable (Green Brand Relationships); independent variables (Green Marketing Functions, Green Brand Management) are associated to the mediating variable (Green Brand Bonding) (Baron et al., 1986; Mackinnon et al., 2007), and moderating variable (Emotional value); and mediating variable (Green Brand Bonding) is linked to moderating variable (Emotional value) the dependent variable (Green Brand Relationships). The past literature indicates that Green Brand Bonding has a significant role among Green Marketing Functions, Green Brand Management, Emotional value, and Green Brand Relationships. So, considering Green Brand Bonding as mediating variable is logical to conceptualize the relationship among Green Marketing Functions, Green Brand Management, Emotional value, and Green Brand Relationships. But a thorough empirical analysis is required to generalize this perception because this relationship has not been generally shown earlier.

4. Methodology

The research has been performed on the past literature of green marketing functions, green brand management i.e. Green Brand Image and Green Brand Trust, Green Brand Knowledge, Green Brand Attitude, Green Brand Preferences, Green Brand Loyalty, Green Brand Equity was adapted from (Chen, 2010; Sukhi, 2016; Chen et al., 2015; Martínez, 2015; Kang & Hur, 2012; Ng et al., 2013; Bekk et al., 2016; Wu et al., 2015), emotional value, green brand relationship, and green brand bonding. A concept paper is a synopsis of previously published articles that integrates and offers new connections between various constructs (Gilson & Goldberg, 2015). Accordingly, this study has been concentrated to draw a relationship among, green marketing functions, green brand management, emotional value, and green brand relationships where green brand bonding plays mediating role in this relationship. Additionally, this relationship will be assessed with regards to banks, insurance & others based on seven parts of green marketing functions as the green product, green price, green place, green promotion, green people, green process, green physical evidence, likewise seven parts of green brand management incorporate green brand knowledge, green brand attitudes, green brand preference, green brand image, green brand trust, green brand loyalty, and green brand equity. At long last, a theoretical model has been proposed dependent on the current writing. Moreover, this study incorporates information about the research's future trajectory.

5. Discussion

It tends to be claimed that practices of green marketing functions, green brand management in the organizations are making green brand bonding in the consumer mind which subsequently expands green brand relationships. Past written works have

confirmed that green marketing functions, green brand management, and emotional value have a positive impact on green brand relationships and green brand bonding. Moreover, green brand bonding has a positive effect on green brand relationships. Subsequently, green brand relationships can be affirmed by the execution of green marketing functions, green brand the management which incite green brand bonding in customer mind. With regards to the Bangladeshi financial area, this relationship might be huge on the grounds that banks, MFIs, insurance & others are confronting numerous obstructions identified with green marketing functions, green brand management, emotional value, and green brand bonding. Besides, explicitly, the Bangladeshi financial area has been experiencing a helpless green brand relationship. Banking areas are confronting difficulties because of unseemly green marketing functions, green brand management, and emotional value practices. Therefore, companies, researchers, and other stakeholders will find the usefulness of this study in their daily operations with customers. Our research suggests that companies' green marketing efforts can persuade and motivate to buy green and keep engaged their customers in the long-term. Our research also, demonstrates the importance as well as the success of green marketing in the development of green brand relationships.

6. Conclusion

The idea of 'green brand bonding' is moderately new as a disaggregate approach of physical, passionate, and financial to sum up and build up the relationship among green marketing functions, green brand management, emotional value, and green brand relationships through existing written works which require a careful examination. Besides, numerous analysts asserted that satisfaction of green marketing functions, green brand management, emotional value bridge green brand relationships apart from green brand bonding autonomously impacts green brand relationships. By the by, the connections among the green marketing functions, green brand management, emotional value, green brand bonding, and green brand relationships, are not all around perceived. Green brand bonding is a significant issue to showcasing directors and specialists yet the deficiency of information in current literary works on green brand bonding drives the requirement for more exact examination. At that point, this study requests an experimental exploration with regards to the banking industry of Bangladesh that may utilize green brand bonding as a mediator to have a better understanding of these relations.

7. Suggestions for Future Research

There are some limitations to this study, which could encourage scholars to conduct additional research. Firstly, this study nature is conceptual suggested for a thorough empirical analysis is required for generalization of the concept. Secondly, this study primarily focuses on few service organizations which gives other

researchers opportunity for further research to take into consideration like green/organic goods-oriented firms for building green brand relationships. Thirdly, this research introduced green brand bonding as a mediator it is suggested for further to incorporate green brand equity as mediator of green brand relationships. To summarize, numerous elements or variables influence the development of green brand relationships, hence we advocate introducing additional variables as potential drivers of green brand relationships.

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THE DEPENDENT RELATIONSHIP ANALYSIS OF FINANCIAL OUTCOME AND THE BLENDING OF CAPITAL STRUCTURE OF LISTED CEMENT COMPANIES IN BANGLADESH

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Abstract

The optimal choice of the debt-equity mix is the burning issue in corporate finance because it affects on the firm's financial result. Therefore, this paper aims to identify the consequences of the blending of the capital structure on the financial outcome taking the consideration of five cement companies listed in Dhaka Stock Exchange (DSE) in Bangladesh. To do this both the capital structure ratios and financial performance ratios are used. The required data ranging from July, 2008 to June, 2019 are used which are retrieved from the desk of DSE. To achieve the objectives of this study correlation technique and ANOVA technique and Regression models are used. The findings of this study demonstrate that there are the mix results of an association between financial result and the capital structure. More specifically, this study evinces both positive and negative connections between capital structure and financial performance.

Keywords: Capital Structure, Financial Performance, Ratios, Correlation and ANOVA.

1. Introduction

The decision of the effect of the optimal mix of capital structure on the financial outcome is still a polemical issue in the corporate world. On one side a myriad of studies shows that firms with high leverage produce a good performance while on the other side some theorem proved that there is no effect of capital structure on the firms' performance to escalate the worth of the firm. This issue was evaluated by considering data from developed countries' companies. Therefore in this paper, this issue is examined by taking the cement companies of Bangladesh.

Capital structure denotes a composition of various long-term sources of funds including equity shares, bonds, reserves and surplus of an organization. Financial performance is an idiosyncratic measure of the extent of how well business firm can employ its belongings to engender revenues. The chronological endeavour of forming the theory of capital structure originated with the exhibition of a paper by Modigliani and Miller (MM) in 1958 to determine under what condition the configuration of capital is pertinent to the firms' financial performance. Most of the choice and selection procedures of the formation of capital structure is grounded on some factors

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like interest rate, taxes etc. (Van Horn, 1993; Titman and Wessels, 1998; Hampton, 1998). These factors directly influence the revenue generation of a firm. This issue suggested the financial researcher pay attention to know the connection between the capital structure and the firm's financial result. Brigham and Gapenski (1996) claimed that in theory, the MM model was effective, however, in the real field there exist bankruptcy costs that are related to the debt levels in a straight manner. This inference implied a straightforward linkage between capital structure and financial outcome.

Since most of the studies have been paid less attention to the Bangladeshi firms, this study is conducted by considering Bangladeshi companies. In this regard, five cement companies are selected that are listed on Dhaka Stock Exchange.

The remaining of this paper consists of objectives of this study, literature review, methodology, research hypothesis, results and discussion, and conclusion.

2. Objective of the study

The main purpose of this study is to identify and comment on the relationship between capital structure and financial effects of the five selected cement companies of Bangladesh. To do this two specific objectives are set: to test the association between the measures of the capital structure and the measures of the financial performance; and to test the significance of the relationship between capital structure ratios and financial performance ratios.

3. Review of Literature

In this section, the previous studies on the relevant issues are discussed. Some of the studies revealed the result in favor of the connection between capital structure and the financial performance, however, some of the studies discovered against it.

Exploration on the model of capital structure was firstly endeavored by the ground-breaking work of Modigliani and Miller (1958). Their paper on the capital structure which is known as the irrelevance theory of capital structure enthused researchers to argue on this subject. This controversy is still in an ongoing process. Nevertheless, with the passage of period, several new dimensions of the theory have been appended to the question of relevance or irrelevance of the composition of capital structure.

Modigliani and Miller (1958) made two 'propositions' under the condition of an idyllic capital market. In their first proposition, they showed that the worth of a company is independent of its capital structure. They affirmed that in a world of ideal capital markets, optimal capital structure is absent. This proposition has been supported by the studies of Schwartz and Aronson (1979), Hamada (1969), and

Stiglitz (1974). Nonetheless, their theory was considered irrelevant theory because of the assumption of rational economic behavior and perfect market conditions. In support of this criticism, Chaganti et al. (1995) showed that this assumption has limited applicability to small firms only. In the second proposition, Modigliani and Miller articulated that a leveraged firm's equity cost is identical to an unleveraged firm's equity cost plus an extra amount for premium for additional financial risk. This implies that there is no superfluous value in a firm if the firm employs any additional leverage. This is because the risk aroused due to the employment of excess leverage is moved from one investor to another. Hence, it remains the total risk of the firm as constant.

In later period, the MM model has been broadened by taking extensive studies by many researchers. Myers and Majluf (1984) advocated that companies will primarily be dependent on the funds which are generated within the companies. With the absence of unbalanced information, a highly profitable firm is expected to use lower-level debt capital. However, firms use debt capital to minimize the agency cost by paying interest amounts (Jensen and Meckling, 1976).

Following these theories, a myriad of researchers had been conducting several studies to unmask the affiliation between firms' usage of debt level and performance of the firms. Among them, a group of researchers have found positive relationship and another group has found a negative relationship. However, some of the researchers have concluded with no connection between debt level and the performance of the organization.

Studies that are conducted by Taub (1975), Hutchinson (1995), Lewellen (1995), Wald (1999), Hadlock and James (2002), Madan (2007), Zeitun and Tian (2007), Nrmalatasan and Brabete (2010), Nirajini and Priya (2013) etc. have been shown an affirmative linkage between leverage and the financial outcome of the firms. As, Nirmalatasan and Brabete (2010) examined the impact of the composition of capital structure on the profitability of the manufacturing companies that enlisted in Sri Lanka. They used debt-equity ratio (DER) to measure capital structure and gross profit ratio (GPM), operating profit ratio (OPM) and net profit ratio (NPM) to measure the firms' profitability. Their findings showed a strong positive link between capital structure and profitability of the Sri Lankan firms. Similarly, in another study Nirajini and Priya (2013) employed debt to asset ratio (DAR), debt-equity ratio (DER) and long term debt ratio (LTDR) as the measure of capital structure and gross profit margin (GPM), net profit margin (NPM), return on capital employed (ROCE), return on asset (ROA) and return on equity (ROE) as the measure of profit performance. They also found a positive propinquity between capital structure and firms' financial outcome.

On the other hand, studies that are conducted by Fama and French (1998), Hammes (1998), Majumdar and Chhibber (1999), Gleason et al (2000), Hammes (2003), Jermias (2008), Cheng (2009), Krivogorsky et al (2009), Wang et al (2010), and Pratheepkanth (2011) have been shown an adverse association between the debt level and the outcome of investment of the firm. As for instance, Fama and French (1998) demonstrated that the exorbitant use of the leverage in the firm could produce agency problems that ultimately result in an adverse impact on the outcome of the firm. This result was also supported by the studies of Majumdar and Chhibber (1999). In another study, Gleason et al (2000) have proved a significant inverse association between leverage and return on asset (ROA). Similarly, Jermias (2008) and Cheng (2009) showed a significant negative associations between leverage and firm's financial result in their respective studies.

Though the above authors were able to show positive and negative association separately, some authors were shown a mix of results that is both mixes of affirmative and negative association between capital structure and the output of the firms in their respective studies. Such as kinsman and Newman (1998), Mesquita and Lara (2003), Abor (2005), Chen et al (2008) and Ebaid's (2009) studies are mentionable. Mesquita and Lara (2003) have divided the total capital into two parts – long and short-term capital. They have shown that the long term debt (LTD) was inversely related and short term debt (STD) was positively allied with the firm's profit performance which is a gauge by return on equity (ROE). Similarly, Abor (2005) has also proved the same result that is short term debt is interconnected in a positive way and long term debt is linked in a negative way with return on equity (ROE). Their result indicates that a firm using excessive debt earns less in the long run as opposed in the short run. However, Kinsman and Newman (1998) have found the opposite results. They have shown that debt used for a short period and earnings are inversely related, and debt used for longer-term and earnings are positively related. In addition to these, Ebaid (2009) have proved that both current and non-current debt has an inverse effect on the organization's performance that is assessed by return on asset (ROA). Nakhaei and Jafari (2015) found that the configuration of capital and the firms' performance (as evaluated by ROA, Economic Value Added and Annual return from stock) of Tehran is significantly inversely related while they also showed that firms' performance is directly correlated with the free cash flow of the firms.

However, some works have established an insignificant and no association between capital structure and firms' financial result. As, Philips and Sipahioglu (2004) have found an insignificant tie-in between different debt levels and a firm's financial outcomes. Carpentier (2006) has revealed the absence of a significant association between the variation in debt level and the change in firm value. Similarly, San and Heng (2011) have shown that return on asset (ROA) and return on equity (ROE) were not related with the level of debt.

Recently, Al-Qudah (2017) have examined this issue using companies listed in Abu Dhabi Securities Exchange. He has used debt ratio (DER) to quantify the capital structure and return on asset (ROA) and return on equity (ROE) to appraise the financial result. They have proved that debt ratio is linked with return on asset in a positive way but with return on equity in an inverse way.

The due diligence inquiry of the literatures on capital structure and financial outcome of different firms indicates that, this issue is still debatable. Especially, there is no universal agreement among authors in using measures of capital structure and that of financial performance. Different authors used different measures of capital structure ratios and financial performance ratio in their respective studies. In addition to this, the case for Bangladeshi firm is rare. Therefore, in this paper, this issue is reexamined by introducing different measures that cover majority of the studies with concentration on data from some of Bangladeshi listed companies.

4. Methodology

In this study, five cement companies are selected which are registered in Dhaka Stock Exchange (DSE). In order to accomplish the objectives of the study, financial ratios related to the configuration of capital and the performance are used. To measure financial performance gross profit margin (GPM), net profit margin (NPM), return on assets (ROA), return on equity (ROE) and return on capital employed (ROCE) are used. To measure capital structure debt to equity (DER), debt to total asset (DAR), long term debt to total asset (LTDR) and proprietary ratios (ProR) are used. Table 01 is represented with the calculation formula for these financial ratios.

Table 01: Formula for determining capital structure and performance ratios

Capital Structure Ratios**			Performance Ratios**		
Debt to Equity	DER	$\frac{\text{Total Debt}}{\text{Total Equity}}$	Gross Profit Margin	GPM	$\frac{\text{Gross Profit}}{\text{Net Sales}}$
Debt to total Asset	DAR	$\frac{\text{Total Debt}}{\text{Total Asset}}$	Net Profit Margin	NPM	$\frac{\text{Net Profit}}{\text{Total Revenue}}$
Proprietary ratio	ProR	$\frac{\text{Shareholders' Equity}}{\text{Total Tangible Asset}}$	Return on Asset	ROA	$\frac{\text{Net Profit}}{\text{Total Asset}}$
Long term Debt total Asset	LTD R	$\frac{\text{Long Term Debt}}{\text{Total Asset}}$	Return on Equity	ROE	$\frac{\text{Net Profit}}{\text{Shareholders' Equity}}$
			Return on Capital Employed	ROCE	$\frac{\text{Net Operating Profit}}{\text{Capital Employed}}$

**These formulae are adopted from various literature studies. DER is adopted from the study of Nirmalatasan and Brabete (2010), Nirajini and Priya (2013), Al-Qudah (2017). DAR from Nirajini and Priya (2013). LTDR from Mesquita and Lara (2003), Nirajini and Priya (2013). GPM is adopted from the study of Nirmalatasan and Brabete (2010), Nirajini and Priya (2013). NPM from Nirmalatasan and Brabete (2010), Nirajini and Priya (2013). ROA from Gleson et al (2000), Ebaid (2009), San and Heng (2011), Nakhaei and Jafari (2015), Al-Qudah (2017). ROE from Mesquita and Lara (2003), San and Heng (2011), Nirajini and Priya (2013), Al-Qudah (2017). ROCE from Nirajini and Priya (2013).

The required data are collected from the annual reports from July 2008 to June 2019 which are available in the desk of Dhaka Stock Exchange. These collected data are recorded in Microsoft Excel (2010) and then the required ratios are calculated. Then all of the calculated ratios are inserted to Statistical Package for the Social Science (SPSS) software.

To determine the affiliation between capital structure ratios and performance ratios Pearson correlation technique and regression models are used. To test the significance of the relationship ANOVA technique is employed.

5. Research Hypothesis

Based on the objectives of this paper the following research hypotheses are set.

H₀: There is absence of a significant association between capital structure ratios (DER, DAR, LTDR and ProR) and the financial performance ratios (GPM, NPM, ROA, ROE, and ROCE).

H₁: There is a significant association between capital structure ratios and financial ratios.

6. Results and Discussion

In this section the correlation, ANOVA and regression techniques are run through SPSS and discussed the output to examine the stated objectives of this study.

Correlation Test result analysis

Correlation is applied to ascertain the connection between capital structure and financial performance of the selected firms. Table 02 is developed with showing the correlation test results and the p-values are presented within parentheses.

Table 02: Correlation result between capital structure ratios and performance ratios

	GPM	NPM	ROCE	ROA	ROE
DER	– 0.369** (0.006)	– 0.172 (0.210)	– 0.387** (0.004)	– 0.30 (0.826)	– 0.346** (0.01)
DAR	– 0.368** (0.006)	– 0.102 (0.457)	– 0.456** (0.000)	– 0.422** (0.001)	– 0.413** (0.002)
LTDR	0.003 (0.981)	0.448** (0.001)	– 0.342* (0.011)	– 0.375** (0.005)	0.268* (0.048)
ProR	0.087 (0.525)	– 0.329* (0.014)	0.292* (0.030)	0.242 (0.075)	– 0.438** (0.001)

** . Correlation is significant at 0.01 level.

* . Correlation is significant at 0.05 level.

From the table above, it is observed that gross profit margin (GPM) is inversely connected with both debt equity ratio (DER) and debt to total asset ratio (DAR) at 1% significant level. This implies that any changes in debt level inversely influence the profit performance that measured by gross profit margin (GPM). However, GPM is not related with both long term debt ratio (LTDR) and proprietary ratio (ProR). This means that the affiliation between GPM and LTDR and ProR is not significant.

There is a positive and significant linkage between net profit margin (NPM) and long term debt ratio (LTDR) at 1% significant level. This means that the changes in long term debt with respect to total asset can influence the net profit positively. However, it is noticed that NPM and proprietary ratio (ProR) is inversely linked at 5% significant level. This implies that any change in shareholders' equity with respect to the total asset can inversely influence the net profit of the selected firms. On the other hand there are no significant association between NPM and DER and DAR.

It is noticed from the table that return on capital employed ratio (ROCE) is significantly related with all the capital structure ratios where it is inversely associated with DER, DAR and LTDR but positively related with ProR. These results implies that any change in debt level can influence significantly the return on capital employed.

The correlation value between return on asset (ROA) and DAR is – 0.422 and ROA and LTDR is – 0.375 at 1% significant level. These demonstrate that ROA is inversely related with DAR and LTDR. However, there are no significant association between ROA and DER and also no relation between ROA and ProR.

Finally, it is observed that return on equity (ROE) is significantly allied with all the ratios of capital structure. ROE is negatively related with DER, DAR and ProR but positively related with LTDR.

Analysis of Variance (ANOVA)

The ANOVA test is run to figure out the significant relation between variables. Table 03 is represented the test result considering GPM as dependent variable. From this table, it is found that debt equity ratio (DER) and debt to total asset ratio (DAR) are significant because in both cases F statistic (8.352 and 8.317) is greater than critical (4.0012) value with p-value (0.006 and 0.006) less than 0.005. These result imply that there is a significant relationships between GPM and DER, and GPM and DAR. However, the relationships between GPM and ProR, and GPM and LTDR are not significant as the F statistic (0.001 and 0.409) is lower than critical value.

Table 03: ANOVA test result (Dependent Variable: GPM)

		Sum of Squares	df	Mean Square	F	Sig.
DER	Regression	0.041	1	0.041	8.352	0.006
	Residual	0.259	54	0.005		
	Total	0.300	55			
DAR	Regression	0.041	1	0.0041	8.317	0.006
	Residual	0.259	54	0.005		
	Total	0.300	55			
LTDR	Regression	0.001	1	0.000	0.001	0.981
	Residual	0.300	54	0.006		
	Total	0.300	55			
ProR	Regression	0.002	1	0.002	0.409	0.525
	Residual	0.289	54	0.006		
	Total	0.300	55			

Table 04 shows that 12% change in GPM is explained by DER and 11.9% change in GPM is explained by DAR.

Table 04: Model Summary (Dependent Variable: GPM)

	R	R Square	Adjusted R Square
DER	0.369	0.136	0.120
DAR	0.368	0.136	0.119

	R	R Square	Adjusted R Square
LTDR	0.003	0.000	0.019
ProR	0.087	0.008	0.011

Table 05 demonstrate that the relationships between NPM and LTDR (F statistic: 13.289), and NPM and ProR (F statistic: 6.428) are significant but the relationship between NPM and DER (F statistic: 1.611), and NPM and DAR (F statistic: 0.561) are not significant.

Table 05: ANOVA test result (Dependent Variable: NPM)

		Sum of Square	df	Mean Square	F	Sig.
DER	Regression	0.007	1	0.007	1.611	0.210
	Residual	0.217	54	0.004		
	Total	0.224	55			
DAR	Regression	0.002	1	0.002	0.561	0.457
	Residual	0.221	54	0.004		
	Total	0.224	55			
LTDR	Regression	0.045	1	0.045	13.289	0.001
	Residual	0.179	54	0.003		
	Total	0.224	55			
ProR	Regression	0.024	1	0.024	6.428	0.014
	Residual	0.199	54	0.004		
	Total	0.224	55			

From table 06, it is observed that 18.5% of NPM is explained by LTDR and 9.1% of NPM is explained by ProR.

Table 06: Model Summary (Dependent Variable: NPM)

	R	R ²	Adjusted R ²
DER	0.172	0.029	0.011
DAR	0.102	0.010	0.008
LTDR	0.448	0.200	0.185
ProR	0.329	0.108	0.091

The F statistics in case of the relationships between ROCE and all of the capital structure ratios (Table 07) are 9.318 (with DER), 13.884 (with DAR), 7.038 (with

LTDR) and 4.952 (with ProR). It is noticed that all of these values are greater than critical value (and also p-value less than 0.5). This evince the significant relationships between ROCE and all the capital structure ratios.

Table 07: ANOVA test result (Dependent Variable: ROCE)

		Sum of Square	df	Mean Square	F	Sig.
DER	Regression	0.182	1	0.182	9.318	0.004
	Residual	1.033	54	0.019		
	Total	1.214	55			
DAR	Regression	0.252	1	0.252	13.884	0.000
	Residual	0.962	54	0.018		
	Total	1.214	55			
LTDR	Regression	0.142	1	0.142	7.038	0.011
	Residual	1.072	54	0.202		
	Total	1.214	55			
ProR	Regression	0.104	1	0.104	4.952	0.030
	Residual	1.111	54	0.021		
	Total	1.214	55			

Table 08 is represented that 13.3%, 19.3%, 10.1% and 6.8% changes in ROCE are explained by DER, DAR, LTDR and ProR respectively.

Table 08: Model Summary (Dependent Variable: ROCE)

	R	R Square	Adjusted R Square
DER	0.387	0.150	0.133
DAR	0.456	0.208	0.193
LTDR	0.342	0.117	0.101
ProR	0.292	0.085	0.068

The findings from the table 09 shows that DAR and LTDR are significantly related with ROA with F statistic: 11.509 and 8.673 respectively which are greater than critical value of F statistic. However, DER and ProR are not significantly related.

Table 09: ANOVA test result (Dependent Variable: ROA)

		Sum of Square	df	Mean Square	F	Sig
DER	Regression	0.005	1	0.005	0.049	0.826
	Residual	4.890	54	0.092		
	Total	4.895	55			
DAR	Regression	0.873	1	0.873	11.509	0.001
	Residual	4.021	54	0.076		
	Total	4.895	55			
LTDR	Regression	0.688	1	0.688	8.673	0.005
	Residual	4.206	54	0.739		
	Total	4.895	55			
ProR	Regression	0.286	1	0.286	3.289	0.075
	Residual	4.609	54	0.087		
	Total	4.895	55			

From table 10, it is evident that 16.3% of ROA and 12.4% of ROA are explained by DAR and LTDR respectively.

Table 10: Model Summary (Dependent Variable: ROA)

	R	R Square	Adjusted R Square
DER	0.030	0.001	0.018
DAR	0.422	0.178	0.163
LTDR	0.375	0.141	0.124
ProR	0.242	0.058	0.041

In table 11 all of the capital structure ratios that is DER, DAR, LTDR and ProR are significantly related with ROE as it is seen that all of the F statistic values (7.188, 10.906, 4.049 and 12.598) are greater than the critical value (4.0012).

Table 11: ANOVA test result (Dependent Variable: ROE)

		Sum of Square	df	Mean Square	F	Sig
DER	Regression	0.313	1	0.313	7.188	0.010
	Residual	2.309	54	0.044		
	Total	2.622	55			

		Sum of Square	df	Mean Square	F	Sig
DAR	Regression	0.448	1	0.448	10.906	0.002
	Residual	2.175	54	0.041		
	Total	2.622	55			
LTDR	Regression	0.188	1	0.188	4.049	0.048
	Residual	2.434	54	0.046		
	Total	2.622	55			
ProR	Regression	0.504	1	0.504	12.598	0.001
	Residual	2.119	54	0.040		
	Total	2.622	55			

Table 12 shows that 10.3%, 15.5%, 5.4% and 17.7% of variability in ROE are explained by DER, DAR, LTDR and ProR respectively.

Table 12: Model Summary (Dependent Variable: ROE)

	R	R Square	Adjusted R Square
DER	0.346	0.119	0.103
DAR	0.413	0.171	0.155
LTDR	0.268	0.072	0.054
ProR	0.438	0.192	0.177

Regression Analysis

Regression model is employed to verify the significance of the coefficients of all variables and thereby test the impact capital structure ratios (independent variables) on the firm's financial outcome (dependent variables). Table 13 is represented the coefficient values with the respective p values within parentheses.

Table 13: Regression Output

	DER		DAR		LTDR		ProR	
	α	β	α	β	α	β	α	β
GPM	0.151** (0.000)	— 1.053** (0.006)	0.133** (0.000)	— 0.099** (0.006)	0.089** (0.006)	0.003 (0.981)	0.081** (0.000)	0.021 (0.525)
NPM	0.099** (0.000)	—0.423 (0.210)	0.085** (0.000)	—0.024 (0.457)	— 0.009** (0.006)	0.400** (0.001)	0.104** (0.000)	— 0.068* (0.014)

	DER		DAR		LTDR		ProR	
	α	β	α	β	α	β	α	β
ROCE	0.012 (0.791)	2.221** (0.004)	0.034 (0.322)	0.247** (0.000)	0.291** (0.000)	-0.712* (0.011)	0.081* (0.020)	0.141* (0.030)
ROA	0.276** (0.008)	0.350 (0.826)	0.496** (0.000)	- 0.460** (0.001)	0.626** (0.000)	- 1.566** (0.005)	0.196** (0.006)	0.235 (0.075)
ROE	0.064 (0.220)	0.330** (0.002)	0.034** (0.000)	0.818** (0.002)	0.032 (0.704)	0.819* (0.048)	0.340** (0.000)	- 0.311** (0.001)

** indicates significance at 0.01 level and * indicates significance at 0.05 level.

Considering GPM as dependent variable, the β coefficients of DER (-1.053) and DAR (-0.99) are significant. In both cases, the p values are less than α value of 5%. This result in rejection of null hypothesis that is there are no alliance between GPM and capital structure ratios (DER and DAR). This typifies that the changes in DER and DAR significantly influence GPM in inverse way. However, LTDR and ProR are not significant as the null hypothesis cannot be rejected.

Similarly, the null hypotheses of there are no relationship between NPM and LTDR ($\beta = 0.4$ and p-value = 0.001) and NPM and ProR ($\beta = 0 - 0.068$ and p-value = 0.014) are rejected. This indicates that NPM is significantly related with LTDR in positive way and with ProR in negative way.

It is also observed in the same way that all the capital structure ratios are significantly related with ROCE and ROE. But only DAR and LTDR are related with ROA.

7. Conclusion

The examination of the effects of the composition of capital on the financial outcome of the listed cement companies in Bangladesh is the core objectives of this paper. Through the meticulous study of literatures four measures of capital layout and five measures of financial performance are selected. Debt-equity ratio (DER), debt to total asset ratio (DAR), long-term debt ratio (LTDR) and proprietary ratio (ProR) are used as capital structure ratios and gross profit margin (GPM), net profit margin (NPM), return on capital employed (ROCE), return on asset (ROA) and return on equity (ROE) are utilized as financial performance ratios.

The required data from the year July 2008 to June 2019 are collected from annual report which are available in Dhaka Stock Exchange (DSE). The data are recorded in MS Excel and the selected ratios are determined that result in total of 540 observations. To fulfill the objectives of this research, correlation, ANOVA and regression techniques are applied by using statistical packages for social science (SPSS) software.

The result of this research work reveals the mixes of association that is both positive and negative association between the composition of capital and the financial performance ratios. Both ROCE and ROE are influenced by the all of the capital structure ratios (DER, DAR, LTDR and ProR). DER and DAR negatively influenced GPM. LTDR positively influence NPM however ProR negatively influence NPM. Finally, ROA negatively influence by DAR and LTDR however positively influence by ProR.

Overall, it can be concluded that, the result of this study disclose the mix of both positive and negative affiliation between capital structure and financial performance of selected companies of Bangladesh. The results of this study support the studies conducted by Kinsman and Newman (1998), Mesquita and Lara (2003), Abor (2005), Ebaid (2009).

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FACTORS AFFECTING THE CHOICE OF A CAREER AS PROFESSIONAL ACCOUNTANTS: PERSPECTIVE OF ACCOUNTING GRADUATES

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Abstract

The paper examines the accounting graduate's perception on accounting profession. Preceding studies indicate that perception of accounting graduates have significant effect on choosing their profession. We have tried to figure out eight variables that have an impact on graduates' perception of choosing career as professional account. These eight variables than translated into fifteen questions and this questionnaire were distributed to accounting graduates of four two public and three private and two national universities. We have received about 112 questionnaires in useable format. We have used descriptive and regression analysis techniques in order to analyze these data. The research result shows that out of eight independent variables salary, advisory received, financial assistance and opportunity to advancement have significant relationships with choice of a career as professional accountant. The findings of the paper may help professional bodies as well as educator and related organizations in order to make their effort in such a way that will increase number of professional accounting students in the professional studies.

Keywords: Accounting Graduates, Students' Perception, Accounting Profession, Professional Accountants.

1. Background of the study

Professionally qualified accountants may play a significant impact in ensuring financial accountability in organizations to drive the sustainable development of a country (Lidiyawati & Sahara, 2021). The career in the field of professional accountancy is challenging, dynamic, and highly respected. Moreover, it has appeared as a dedicated field of accounting that contributes to a firm's strategic decisions. Career in professional accounting is considered an excellent career option. Professional accountants enjoy decent compensation with stable employment rate despite fluctuations in the economy. In addition to that this career is equally demanded not only within the country but also across the border.

The economy of Bangladesh is generating consistent growth rate of over 6% for the last two decades with stunning GDP growth of 5.2% in the FY2019-20 despite the Covid-19 pandemic distress. Therefore, the need for qualified professional

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accountants is also increasing. Accounting education must be of high quality in order to produce qualified accountants who can generate and transmit accounting information to decision makers. Accounting education is provided in Bangladesh by many universities as well as two national professional schools, ICMAB and ICAB, to address the demand for highly educated human resources needed for legitimate accounting practices. At present, the required professional accountant in Bangladesh is not less than 15000, according to the professional institutions. Currently, we have not more than 1727 CAs (ICAB, 2020) and 900 CMAs (ICMAB Students Statistics, 2020). So there is a shortage of professional accountants in Bangladesh. According to the UGC (2019), there are 853,977 students under business studies in 46 public universities and 87695 students in 105 private universities. But number of articled students as of 30th June, 2020 is 3993 in ICAB and in ICMAB, no of students participated in June 2019 exam is 8724. The number of registered professional accountant and articled students of Bangladesh is quite low as per the requirements.

Despite significant advancements in the curriculum, training, and examination, total entrance into the CA profession in Bangladesh has remained equivalent to as low as 10% of existing members during the previous five years (World Bank Report on the Observance of Standards and Codes, 2015). Bangladesh is unable to drive its business students to desire for becoming professionally qualified accountants and thereafter the corporate bodies also face the difficulty of the fresh recruitment and retention of qualified accountants. As a result, the shortage of certified accountants in Bangladesh looks to be a serious issue. Moreover, the main reason for why the accounting students are not motivated to pursue professional qualifications remains a mystery to both academics and professional bodies.

As a result, the purpose of this study is to learn about accounting graduates' perceptions that impact their decision to pursue a career in accounting. This research can assist professional organizations in determining a work plan to enhance the number of professional accountants in Bangladesh. In the following part, some previous studies which are relevant to this paper are presented that leads to the research framework of the study. The research methodology is described and the study outcome and the data analysis are presented afterward. In the concluding part the study summarizes the key findings with reference to the study limitations and future research opportunities.

2. Literature Review and Model Development

According to International Federation of Accountants (IFAC), "a professional accountant is a person who has expertise in the field of accountancy, achieved through formal education and practical experience, and who demonstrates and maintains competence, complies with a code of ethics, is held to a high professional

standard, and, is subject to enforcement by a professional accountancy organization or other regulatory mechanism". That is to say, qualified professional accountants are well-educated and mostly work as auditors and/or tax and finance managers. Many of them, however, operate as company leaders and strategists, as well as corporate finance advisors and policymakers in the state services. Worldwide several studies have looked at the factors that impact accounting students' decision to pursue a career in accounting. Prior studies confirmed that grit personality, financial assistance, and advisory received (Mustapha & Abu Hassan, 2012; Aziz et al., 2017), status or prestige, job security and salary (Abdullah and Zakaria, 2006 and Mustapha and Abu Hassan, 2012), advancement opportunity and perception of students (Omar, 2009 and Abdullah, 2001), all have a significant impact on accounting graduates' choice of their career to pursue qualification for becoming a professional accountant.

Grit

According to Bacanli (2006), personality factors influence career indecisiveness. According to Gunkel et al. (2010), personality qualities have a direct effect on a students' choice of their career. According to Duckworth and Peterson (2007), grit is the most important personal attribute for successful leaders, and grit is defined as tenacity and a drive to achieve long-term goals. Prior research had revealed that adults with more grit had higher educational attainment, implying that grit was a key aspect in an individual's ability to persevere in difficult situations.

Financial Assistance

Myburgh (2005) maintains that one of the main reasons why students do not seek professional accounting qualifications is cost. This studies implied that the cost of qualifying influencing negatively the respondents. Therefore financial assistance may help motivating accounting students go further to enroll in a professional degree.

Advisory received

Parents' (Law, 2010) and teachers' (Myburgh, 2005) influence played a crucial part in persuading pupils to pursue careers as professional accountants. According to Laws (2010), the parent decision influenced the accounting students' career choice in professional accountancy. Advice from influential clan members and the impact of school professors were indicated as the top three sources of information in a survey done by Myburgh (2005) on South African undergraduate students of accounting at the University of Pretoria.

Status or Prestige

Prestige or status affected students' choice of a career in accounting since it was a powerful medium of social acknowledgment. Chartered Accountants, among other accounting professions, were in high demand both at home and abroad for upholding a respected level in society (Jackling et al., 2012).

Job Security

Many studies have shown that job security and stability are important elements in deciding whether or not to pursue a career as an accountant. Mustapha and Abu Hassan (2012) discovered a favorable association between job security and respondents opting to be professional accountants in a study of accounting students in their last year at a Malaysian public university. Job security, according to Abdullah and Zakaria (2006), is an important reason for accounting graduates who want to work as a qualified professional accountant. Another study, conducted by van Zyl and de Villiers (2011), revealed that accounting students prioritized the rank of future positions.

Salary

Abdullah and Zakaria (2006) performed study at two Malaysian state institutions and discovered that the predicted future wage was an essential factor for students interested in working for a public accounting business. According to a study conducted by Ghani et al (2008), first year accounting students consider compensation to be a crucial determinant in an accountant's happiness. According to Horowitz and Riley (1990), one of the most important factors influencing students' career decisions is the income offered to them. Another study by Trump and Hendrickson (1970) indicated that one of the most important employment characteristics for undergraduate accounting majors was starting wage. This conclusion is contradicted by research by Mustapha and Abu Hassan (2012) and Law (2010), which found that compensation was not a strong motivator for students to seek CPA professions. Similarly, Abdul Aziz et al. (2017) discovered that pay had no effect on the motivation to become a trained professional accountant.

Opportunity for advancement

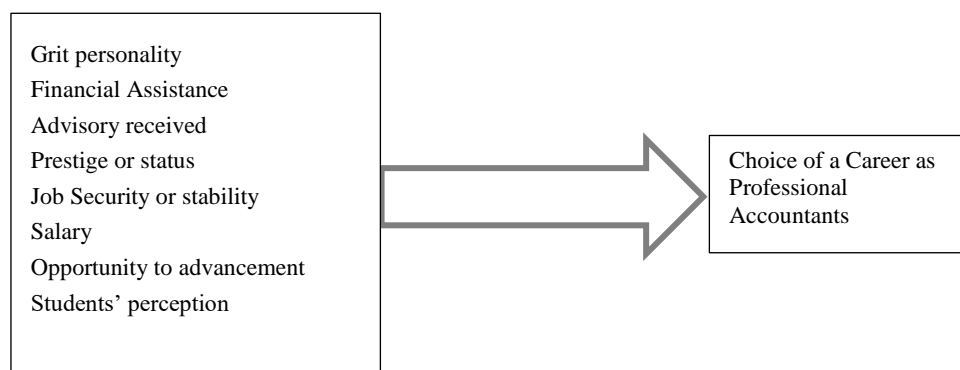
Abdullah and Zakaria (2006) discovered evidence that accounting students who aspire to be CAs value opportunities for progress much more than those who do not. Accounting students' intentions to pursue a profession in accounting, particularly female students are heavily impacted by opportunities for promotion (Mustapha and Abu Hassan 2012).

Students' Perception

There are myriad determinants that have had an influence on accounting students' perception to professional accounting career. According to Omar (2009), the sheer numbers of students opined that the examination of professional accounting programs were daunting task and taken a lot of time or attempts to qualify. This profession was suitable for those who were disciplined and highly committed students along with excellent CGPA. Female students are in a dilemma whether they complete professional accounting programmes or not (Abdullah, 2001).

Several researches have been conducted outside of Bangladesh. According to a study conducted by Akter & Siraj (2018) from the perspective of Bangladeshi students, three variables, such as public versus private university, statuses, and family income, have a substantial association with students' inclination to seek a CA professional qualification. Gender and student CGPA, on the other hand, are seen as unimportant influences. There is a study gap when it comes to examining the elements that influence Bangladeshi students' perceptions of professional examinations. This study took into account eight criteria to close this gap, which is listed below: This research aims to shed light on these eight independent variables collectively drive an accounting student to pursue a career as a professional accountant? The proposed research model is as follows, based on the conversation and research question.

Proposed research model



The model was adapted from Mustapha and Abu Hassan's (2012) study, which shows that the dependent variable is choice of a career as professional accountant and the independent variables are salary, job security or stability, prestige, opportunity to advance, students' perceptions, advisory received, financial assistance, and grit personality.

3. Methodology

This research is aimed to identify why the accounting graduates are not interested in accounting career and investigate the factors that affect perception of accounting graduates' career choice. The quantitative approach is taken with the positivism paradigm. Data collected by using primary source based on employing the questionnaire survey method is used in this analysis. The main factor of using questionnaire method is to reduced time and costs of as compared to personal interviews and it also allows researcher to obtain a broad variety of standardized data from a big sample. We have obtained the questionnaire used in this research from Omar (2009). We have distributed the questionnaires to 550 accounting graduates of two public and three private and two national universities of Bangladesh. We have preferred the graduated accounting students because they would have clear understanding about accounting profession and their career choice as they have more experience, understanding and knowledge about it as compared to the students of first, second, third and fourth year. The questionnaire composed of three parts. In part A, we attempt to know the respondents' plan after graduation. In part B, we have made questions about the influencing factors about their career choice after graduating and respondent's purpose to take a professional test and Part C is concerned with socio-demographic data of respondents. From table 3, we have obtained variables used in the study. We have grouped these 15 questions into 8 independent variables to be used in the study such as grit personality, financial assistance, advisory received, status or prestige, job security, salary, advancement opportunity, and perception of students and a dependent variable such as choice of a career as professional accountant. Respondents were asked to rate their degree of agreement with each of the statements on a seven-point Likert scale (1=strongly disagree to 7=strongly agree).

3.1 The proposed model for the study is shown below:

$$CCPA = \alpha + \beta_1 SR + \beta_2 OA + \beta_3 PS + \beta_4 OFA + \beta_5 SP + \beta_6 AR + \beta_7 FA + \beta_8 GP + \varepsilon$$

Where,

CCPA	=	Choice of a career as professional accountants
α	=	intercept
GP	=	Grit personality
FA	=	Financial Assistance
AR	=	Advisory received
PS	=	Prestige or status
JS	=	Job Security
SR	=	Salary
OA	=	Opportunity to advancement
SP	=	Students' perception
ε	=	Errors

We have analysed data by using descriptive statistics and regression analysis. In order to analyse, we have inputted these data into the Statistical Package for the Social Sciences (SPSS) software. Frequency and means analysis are used mainly in analysing the profile of the respondents such as gender, name of university, CGPA, earning members in family, average annual family income and future plan after graduation such as planning after graduation, intention to pursue professional qualification, preferred professional programs to pursue, and knowledge of professional programs, while variables influencing choice of a career as professional accountant are analyzed using multivariate regressions.

4. Results and discussions

4.1 Profile of respondents

Our first part of the questionnaire was about demographic information about respondents. In this section, we have made five questions to have overview about the demographic profile of the respondents. These five questions were asked to have knowledge about respondents' gender, university type, CGPA, earnings members in the family and average earnings member of the family.

As the below table shows that, analysis of respondent's gender indicates that about 77.7% respondents are male and 22.3% are female respondents and most of the respondents are from public university which is about 89.3%. Most of the respondents (59.3%) secured a moderate CGPA that ranges from 3.00 to 3.49. Information about earnings members of their family shows that, majority of the respondents' (57.7%) family have only 1 earnings member and most of theirs (66%) average annual earnings is below 3 lakh.

Table 1: Demographic information

Demographic Factors	n	Percentage
Gender:		
Male	87	77.7
Female	25	22.3
University:		
Public	100	89.3
Private	7	6.3
National	5	4.5
CGPA:		
2.50-2.99	24	21.4
3.00-3.49	62	59.8
3.50-4.00	21	18.8
Earnings Member in Family:		
Only 1	64	57.7
2 to 3	41	36.9
More than 3	6	5.4

Average Annual Family Income:		
Less than 1 Lakh	37	33
1 Lakh to 3 Lakh	37	33
3 Lakh to 5 Lakh	22	19.6
5 Lakh to 7 Lakh	7	6.3
More than 7 Lakh	9	8

4.2 Future planning after graduation

The bellow table shows descriptive analysis about the respondents' future plan after graduation. In this section, we wanted to know about their intention by asking them four questions. Based on the response, we can see that, the respondents want to work immediately is about 65.2% and 28.6% of the respondents want to go for further study. Apart from that, the respondents also asked of their intention to pursue professional qualification and about 62.5% of the respondents have the intention to pursue professional degree. It reveals that most of the respondents (52.7%) choose CA as their intended professional degree. The respondents were also asked about their sources of knowledge about professional programs and the survey shows that majority of the respondents become aware about the professional programs either from lecturers and academic advisor at their institution (38.4%) or from seminar/workshop/exhibition (28.6%).

Table 2: Future plan after graduation

		n	Percentage
What are your plans after graduation?	To work immediately	73	65.2
	To further study	32	28.6
	Others	7	6.3
Do you plan on pursuing a professional qualification?	Yes	70	62.5
	No	42	37.5
Which professional program would you take if you had to make a decision?	CA	59	52.7
	CMA	6	5.4
	ACCA	8	7.1
	Others	39	34.8
How did you become aware of the professional programs?	From your institution's professors and academic advisors	43	38.4
	From Seminar/workshop/exhibition	32	28.6
	From newspaper through advertisement	3	2.7
	Notice board at university	1	0.9
	Website of the Organization	6	5.4
	From friends	27	24.1

4.3 Students' perception of professional qualification

The table below presents descriptive data for assertions about choice of a career as professional accountants. Respondents were asked total 15 questions grouped into 8 segments such as grit personality, financial assistance, advisory received, status or prestige, job security, salary, advancement opportunity, and perception of students that may or may not affect the choice of a career as professional accountants.

Table 3: Descriptive statistic of the statements

Variables	n	Mean	St. Deviation
Professional graduates are paid higher than university graduates.	112	6.01	1.174
Many people opt to take professional exams after graduation because of the high pay.	112	5.61	1.211
Professional accountant's career is highly secured.	112	5.16	1.498
Other professional job is not as flexible as compared to accounting profession.	112	3.91	1.680
The field of accounting profession is more stable as compared to others.	112	3.79	1.690
Professional accountants get better opportunity for promotions.	112	5.68	1.224
Accounting is a professional sector that offers more options for training to cope with the current client demand.	112	5.43	1.206
Accountants with professional qualification are more respected than accountants with degree in accounting.	112	5.85	1.164
The examination of professional accounting programs were daunting task and taken a lot of time or attempts to qualify	112	5.60	1.069
Family obstacles are considered as factors not to go for the professional examination.	112	5.85	1.210
Age of graduate students is considered as factors not to go for the professional examination.	112	4.84	1.706
Your parents are supportive to you to pursue professional examination.	112	4.98	1.765
Your professors or academic advisor may encourage you to take a professional test.	112	5.37	1.401
The cost of pursuing a professional examination is too expense for graduates.	112	5.32	1.447
Financial support from families and others are available to pursue professional examination.	112	3.89	1.731

4.4 Reliability and validity tests

The data which used in the study are considered reliable and consistent as the Cronbach's alpha coefficient is 0.71 which is more than the minimum stated value of 0.70 (Cortina, 1993). The value of Kaiser-Meyer-Olkin for the data is 0.77 which is greater than 0.50 (Field, 2005) that means that the factor analysis model is appropriate.

4.5 Normality and multicollinearity

The descriptive statistics of the variables used in the study is shown in table 4. The data appears to be normally distributed as the skewness values lies between -2 to +2 and kurtosis values are between -7 to +7 (Hair et al.,2010).

Table 4: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness	Kurtosis
Salary (SR)	112	11.616	1.973	-1.926	5.852
Job Security (JS)	112	12.857	3.422	-0.283	-0.640
Advisory Received (AR)	112	10.348	2.598	-0.918	0.737
Students' Perception (SP)	112	16.286	2.911	-1.466	3.255
Grit Personality (GP)	112	24.804	3.911	-0.340	0.448
Financial Assistance (FA)	112	9.214	2.315	-0.714	0.804
Prestige or Status (PS)	112	5.848	1.164	-1.861	4.300
Opportunity to Advancement (OA)	112	11.107	1.938	-1.418	3.553

Pairwise correlation coefficient of all the variables used in the study shows in the table 5. The results indicate that as the correlations are below the threshold value of 0.8 (Gujarati, 2003, p. 359), so there is no multicollinearity problem.

Table 5: Pearson correlation test for the variables

	SR	JS	AR	SP	GP	FA	PS	OA
SR	1							
JS	0.24*	1						
AR	0.05	0.22*	1					
SP	0.29*	0.19**	-0.02	1				
GP	0.14	0.16	0.20**	0.11	1			
FA	-0.13	0.18**	-0.11	0.10	0.15	1		
PS	0.34*	0.16	0.16	0.32*	-0.02	-0.01	1	
OA	0.22**	0.28*	0.36*	0.38*	0.09	0.09	0.44*	1

* Significant at the 1% level (2-tailed)

** Significant at the 5% level (2-tailed)

4.6 Regression analysis

In terms of graduates' choice of a career as professional accountant, the regression model is statistically significant ($p < 0.000$). All independent factors were accounted for as independent variables in this model and explained roughly 69% of the variability in graduate students' desire to seek professional qualifications. Out of eight, four variables, namely salary ($\beta = 0.093$; $p < 0.000$), advisory received ($\beta = 0.114$; $p < 0.000$), financial assistance ($\beta = 0.149$; $p < 0.000$), and opportunity to advancement ($\beta = -0.051$; $p < 0.039$) were found to have significant impact on choice of a career as professional accountant. Other variables, namely job security, prestige or status, grit personality, and students' perceptions were not found to be significant factors toward the graduates' choice of a career as professional accountant.

Table 6: Regression result

	B	Std. Error	t	Sig.
Salary (SR)	0.093	0.023	4.098	0.000*
Job Security (JS)	-0.022	0.012	-1.821	0.072
Advisory Received (AR)	0.114	0.017	6.569	0.000*
Students' Perception (SP)	0.015	0.015	0.981	0.329
Grit Personality (GP)	-0.008	0.010	-0.797	0.427
Financial Assistance (FA)	0.149	0.018	8.300	0.000*
Prestige or Status (PS)	0.012	0.039	0.311	0.756
Opportunity to Advancement (OA)	-0.051	0.024	-2.092	0.039*

* Significant at the 1% level (2-tailed)

** Significant at the 5% level (2-tailed)

5. Conclusion and Recommendations

Public accounting profession is one of the most renowned and prominent professions in Bangladesh. However, it is having difficulty persuading graduates to pursue professional degrees, and firms are having difficulty recruiting and retaining accountants. The objective of this research is to learn about accounting graduates' views on taking professional tests and to investigate the factors that impact accounting graduates' career goals of becoming professional accountants.

The result demonstrates that salary, financial assistance, and advisory received positively and significantly influence the interests of accounting graduates to become a public accountant. Apart from that, the current findings also observed that opportunity to advancement is negatively associated with the interest of accounting graduates. The findings generated from this study were consistent with some extant

observations (Myburgh, 2005 and Ghani et al., 2008). This implies that the future predicted wage and qualifications costs are essential factors for graduates' interest in working as a professional accountant. These results can be explained through analyzing the economic and social context of Bangladesh. The study result (demographic profile of the respondent) confirmed that most of the respondents are from low or lower middle class income group. Moreover most accounting graduates have got a very minimal financial support for continuing their study. Therefore the financial assistance and salary played significant role in attracting the graduates to choose public accounting profession that require incurring additional cost and sacrificing opportunity cost of immediate employment. In addition to that, it is also interesting to note that 67% of respondents become aware of the professional programs through academic advisors and from seminar or workshop. This is consistent to the point that advisory received is positively associated to the interest of accounting graduates. However it seems that opportunity to advancement in career is negatively associated to draw the interest in professional accountant. One possible reason is that that typical accounting graduates lack interest in growth and mostly they are risk avoiders. In similar vein, this attitude may explain the non-significance of the other variables namely job security, prestige or status, grit personality, and graduates' perceptions.

There are certain drawbacks to this study. For instance, the sample size of this study is rather limited, and only data from university graduates' perceptions at a certain point in time (cross-sectional) is obtained. A longitudinal study with multiple respondents and a broader variety of circumstances may result in a better understanding of the situation. Therefore, future study may take into account additional characteristics such as culture, academic accomplishment, marital status, and other personal values. Despite these flaws, this study adds to the literature by offering information to universities and professions on the factors that influence graduates' job decisions. This research can help both academicians and policy makers. Policy makers may find this study useful designing their long term and short term incentives to attract more accounting graduates to accounting professions by spreading financial and non-financial (advisory) support. The outcomes of this study would also be valuable to accounting instructors in reflecting on whether they have had a significant impact in improving students' comprehension and awareness of the accounting profession. This would then allow them to concentrate on how and what can be done to improve their role in preparing accounting graduates for the practical world.

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CORPORATE DEMAND FOR INSURANCE: AN EMPIRICAL INVESTIGATION FROM BANGLADESH INSURANCE MARKET

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Abstract

The primary purpose of this research is to figure out how well general insurance companies are performing in Bangladesh, and whether there exists any potential or apparent areas of growth. In this research, total 650 Bangladeshi business organizations were surveyed to gather data on corporate protection needs and insurance coverage. Following the survey, the subsequent results were uncovered: As insurance operators can further penetrate the corporate sector, and most business organizations indicated a willingness to spend on insurance, a greater focus on insurance value propositions is required. Moreover, insurance policies are gaining attraction because of the established market, expanded product line, and quality service. However, business firms are heavy reliance on intermediaries which demands a strong collaboration with intermediaries to expand market. Furthermore, business firm concerns about insurance coverage and the correlation between the coverage and business firm attributes which can help insurance companies design better products and effective strategies to suit potential market groups. Although these findings may not be conclusive, they are a good indicator for the insurance industry as a whole and the target market. In addition, the study could help scholars and regulatory authorities discuss opportunities for the ongoing development of the sector.

Keywords: corporate insurance demand, corporate industry, insurance business, business entities, general insurance.

1. Introduction

Following the corporate organizations in developed countries, companies in Bangladesh and developing countries typically buy insurance contracts to protect businesses from the unforeseen hazard. Before getting started, it is crucial to understand why companies purchase so many insurance policies. Recent research revealed that a commonly held perception about company insurance coverage was incorrect; many individuals thought that stockholders were protected from danger while stockholders weren't protected. A modern school of thought states that investors can mitigate the effects of insurable risks by diversifying their portfolios. When putting together, it is clear that risk aversion has a significant impact on

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personal insurance demand, while the impact on corporate insurance demand is ambiguous (Main, 1983; Mayers & Smith, 1990; and MacMinn, 1987).

Government-owned JBC (Jiban Bima Corporation) and SBC (Sadharan Bima Corporation) were the only insurance companies in Bangladesh in the 1970s that offered life and general insurance, respectively, for private citizens and businesses. A private insurance company was established in the country in 1985. As a result, non-government insurers have grown rapidly in setting up organizations, formulating policies, and expanding their business. However, the real competition in the insurance industry has only begun since non-government insurers have gained a foothold. There are still not enough insured people in Bangladesh, as its insurance market is relatively small compared to its overall economic size (Islam & Mamun, 2005). Currently 43 general (non-life) and 17 life insurance companies in Bangladesh, which is insufficient to provide insurance services to approximately 150 million people (BIA, 2000; Siddiqui, 1995; Islam & Chowdhury, 1995).

It is almost the first attempt to study corporate firms' demands for insurance in terms of overall corporate institutions. Previous studies were done on a different industry, which is to say, the insurance industry's re-insurance demand, or on another kind of insurance company, which is to say a specific insurance company.

This study provides a more thorough understanding of the Bangladesh economy and its influence on insurance demand. This study also outlines various factors that influences on corporate insurance demand considering previous studies. Moreover, growth and improvement opportunities of insurance business in Bangladesh also focused in this research.

Finally, giving attention to prospects of demand and opportunities to be opened to businesses helps to position insurance companies. This research is mainly concerned with -

- determining how much target respondents know about insurance and insurance benefits to focus on their security needs.
- assessing how respondents' security needs are met and determining which ones are necessary.
- finding out which factors target respondents consider when obtaining insurance; and
- identifying what aspects of insurance target respondents know about the insurance policy.

2.0 Literature Review

Insurance is vital in today's business world, therefore, analyzing corporate insurance demand is fundamental. In a theoretical model, market defects create a

need for insurance. Prior research looked into the connection between an enterprise's risk and the purchase of insurance. According to these studies, insurance can help business owners and managers avoid financial ruin due to unanticipated losses. To put it another way, risky companies are more likely to buy insurance than those that are less risky (Smith, 1986; Mayers & Smith, 1987; MacMinn & Han, 1990; and Han, 1996).

For instance, Grace & Rebello (1993) found that they would demand insurance if firms had information asymmetry. Thus, insurance has utility as a perceived sign of trustworthiness. MacMinn (1987) developed a model with expensive complications, including bankruptcy and bondholder/corporate management conflict, which had to be factored in. He discovered that corporations purchase insurance to reduce or eliminate the costs of financial failure or employment agencies. In a study conducted by Skogh (1989), it was discovered that the purchase of insurance is in many cases because it is impossible to complete contingent claim contracts. This means that transaction costs are always present in such contracts.

Joe, Mike & Mike (2001) looked into how property insurance in China compares to the risk of investing in publicly traded companies. According to their findings, companies with a high level of operating leverage and systemic risk are more likely to purchase property insurance than other businesses. In addition, foreign-owned businesses appear to spend more on property insurance than domestically owned ones. However, there was no correlation between the two variables (Joe et al., 2001). Moreover, Simone & Mathias (2007) studied German businesses' insurance needs and opined that the size of a company has a negative impact on insurance demand, a strong correlation between insurance demand and policy-damage ratios. That is why businesses with greater losses than the policy's capital demand a more robust insurance package. It is possible that large insurance companies may be less effective at negotiating insurance policy terms if they have greater market power. When compared to other business forms, stock companies buy far fewer policies of insurance. Commercial insurance rates tend to be higher for legally operating businesses than for illegally operating ones. In addition, the need for insurance rises in direct proportion to the number of sales generated by the company's employees (Simone & Mathias, 2007).

Additionally, Kerjan, Raschky & Kunreuther (2009) found that larger companies in the United States were more likely to have more comprehensive disaster insurance. However, insurance against non-catastrophic risks is more elastic than disaster insurance (Kerjan et al., 2009). Mohammad (2010) looked at factors such as underinvestment, debt ratios, growth opportunities, and expected bankruptcy costs to

identify critical factors for prevalent insurance in Malaysia. There is a strong correlation between the amount of debt a company has and the amount of insurance it needs in Malaysia, based on the results of this study (Mohammad, 2010).

3.0 Methodology

3.1 Data Collection and Survey Framework

The authors developed a survey that would help conduct the investigation. Closed-ended questions were used in the survey questionnaire, and respondents had to select from the list of answer options. Multiple choice, Yes-No options, and Likert-type scales were all used for the answer options.

The authors created a bilingual (English and Bangla) questionnaire to reach out to the broader section of the population. A survey was created with three main parts, the first of which was "protection needs and awareness," the second of which was "insurance take-up," and the third of which was "organization profile" (i.e., the respondents). An additional Part D was made more extensively to give people additional opportunities to communicate with them. To implement this research, the authors distributed a total of 650 questionnaires among the respondents and found 603 were usable and complete.

3.2 Target Respondents.

The targeted respondents were 650 corporate organizational entities in Bangladesh (including commercial as well as non-commercial entities), but 603 were usable for this research. For example, various risks associated with day-to-day operations, like property, third-party liability, and business interruptions, and equipment failure, may be covered by insurance.

3.3 Analytic evaluations of Survey Responses

An analysis of the responses was conducted using descriptive and correlational methods. As part of this process, we defined investigation variables and analyzed the interactions between them to establish the characteristics of respondents and explain their frequency distribution.

4.0 Results and Interpretation

4.1 Respondent profile

Both corporations and non-profit organizations completed an exhaustive study on 603 different responses. This involved groups like sole proprietorships, partnerships, government-linked companies (GLCs), public and private companies, and other agencies of the government.

In terms of how many respondents belonged to different types of legal entities, the highest number of respondents (41.62 percent) were private limited companies, while 22.11 percent were for government and 22.11 percent were for public limited companies' 21.24 percent. 11.40 percent of which are Government Linked Companies and sole proprietary trading firms (1.9 percent). For this poll, a small group of respondents was formed into partnerships (1.73 percent).

The length of time for respondents who have been in business for five years or more, and have 30 or more staff or more employees, has shown that A huge percentage of people in the survey had been doing their job for a long time. In addition to the top three business activities that we researched, we discovered that secondary enterprises, such as wholesale/retail sales, construction /property/real estate, and manufacturing, were popular. The following facts are conveyed by Figures 1, 2, 3, and 4, respectively:

- respondents broke down according to the institutional variety
- representation of participants based on the duration of their operations
- correspondence survey in which each responder is uniquely identified by the company for which they work
- the number of respondents' primary business rankings in numbers.

There is a conversation about the many evaluation elements covered in the findings section of the report, as they are all based on the insights discovered in the survey and the market information accessible.

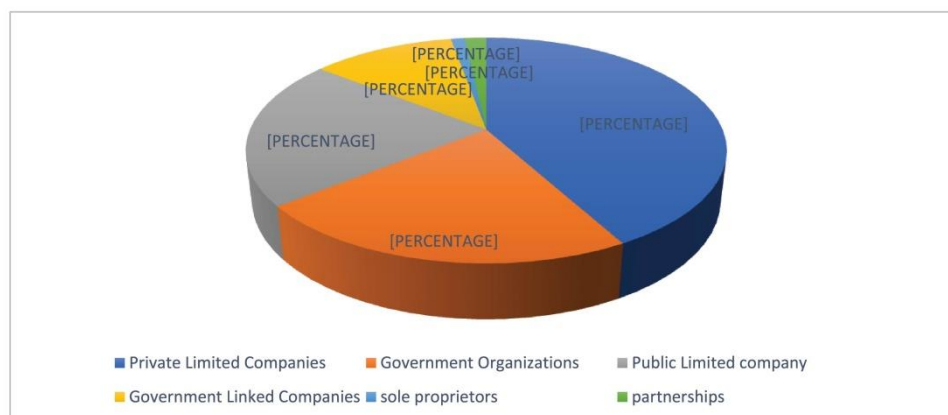


Figure: 1: The composition of respondents is based on the type of institution.

Source: Authors Estimation

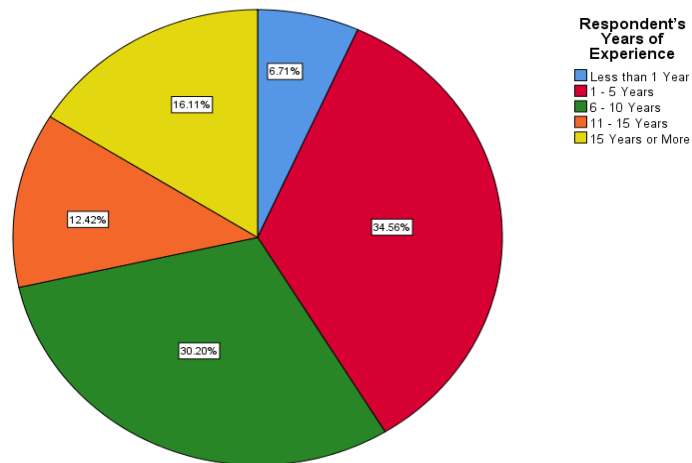


Figure 2: Respondents' distribution by operation time in years
Source: Authors Estimation

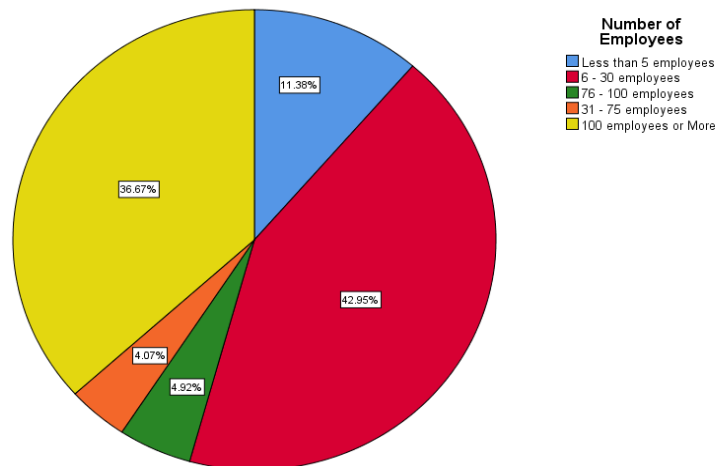


Figure 3: A demographic sample was assembled based on the size of the employees.
Source: Authors Estimation

4.2 Awareness of Insurance Coverage Availability

The primary area of evaluation in the study of the essence of insurance demand is the extent to which target respondents have information about their insurance coverage. In this section, questions are designed to ascertain respondents' knowledge regarding security strategies (i.e., insurance coverage) To protect themselves from financial losses resulting from events such as accidents or business assets getting damaged or becoming damaged.

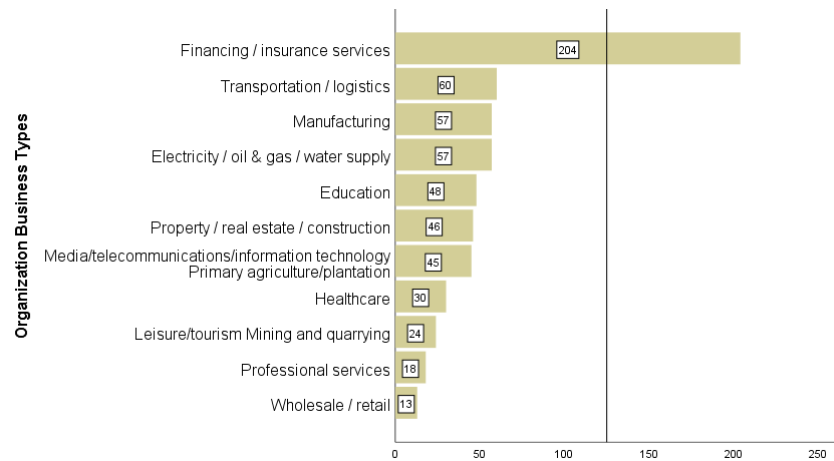


Figure 4: The primary business sector's ranking and the corresponding number of respondents

Source: Authors Estimation

There was usually an appropriate degree of awareness about insurance coverage among the participants. Insurance is made available to protect companies from financial losses resulting from misfortunes when approximately 90% of respondents confirmed their awareness of the availability of insurance. According to the survey, a total of 89 percent of respondents reported that insurance was one of the most significant factors, as they believed they were aware of its availability.

When compared to Figure 5, the rate of insurance knowledge was shorter; for example, 80 percent of survey respondents had insurance knowledge. Insurance knowledge was found to be an area for further development, with almost 50% of those who responded saying they were not aware of any additional details about it. Moreover, only about 31% of respondents appeared to understand the concept of insurance quite well.

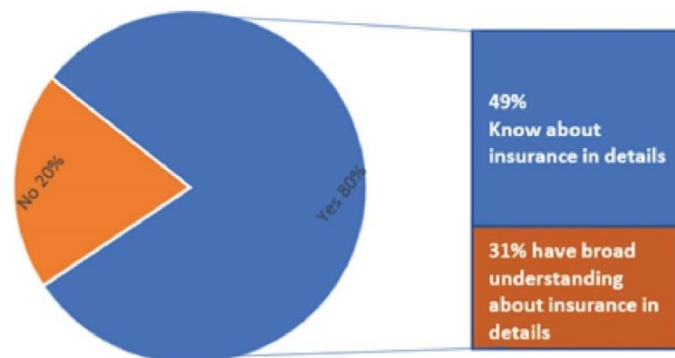


Figure 5: Awareness of the availability of insurance among respondents

Source: Authors Estimation

According to an analysis of survey respondents regarding 'Organization Criterion', companies and institutions with more staff and long-term activities have a higher level of insurance knowledge. As an outcome of the research, it was discovered that it was the government (ministries, agencies, and government-owned corporations) rather than independent entities (sole proprietorships and partnerships) that was more aware of insurance policies (later two had the lowest levels of 17 percent and 15 percent, respectively). These insurance companies may be heavily involved in numerous government ministries or agencies-led initiatives.

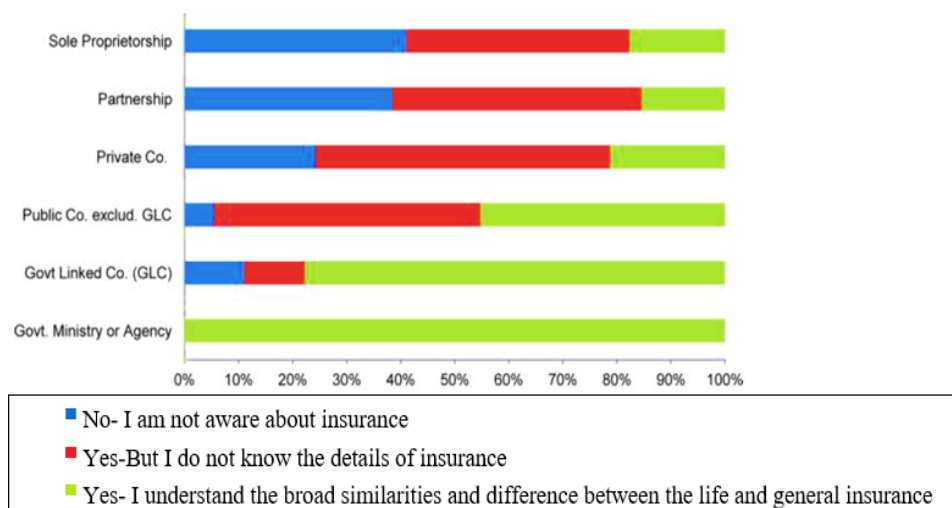


Figure 6. Based on respondents' awareness of insurance, respondents were sorted according to their awareness level.

Source: Authors Estimation

These findings advocate the need to focus on improving insurance awareness to this point. More efforts must be made to improve consumers' attitudes, as well as their awareness of the value of insurance, by both businesses and non-profit organizations. Insurance products should also be presented to the public and the business community to emphasize the various features of the insurance industry (e.g., transferring the protection surplus with qualified customers after the expiry of the insurance contract).

The questionnaire has also been designed to assess the likelihood of respondents taking out insurance or buy insurance. 71% of people in our survey realize importance to seek some kind of protection for their companies and organizations, no matter the risks they feel are significant, without taking into consideration whether they have insurance. The group included respondents (43%) who already had insurance cover and respondents (39%) willing to look at potential premiums.

These findings are highlighted in Figure 7. It is evident that there is excellent potential for the insurance industry based on our study of consumers' attitudes.

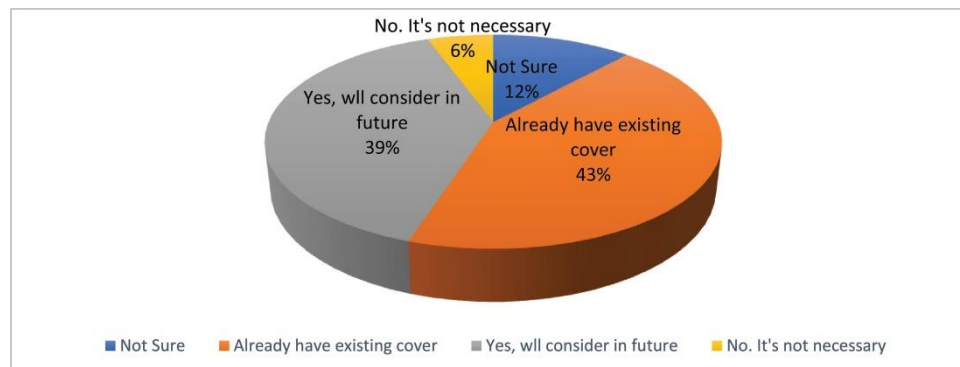


Figure 7. A breakdown of respondents' readiness to purchase insurance based on that decision

Source: Authors Estimation

4.3 Operational protection requirements for businesses and other entities

A prerequisite for ensuring insurance coverage is that consumers place a priority on their security needs. A sample of the target population has been asked to assign importance to the various incident and risk exposures and other institutional matters (e.g., businesses, offices, employee welfare) as stated in the questionnaire.

Even though they were asked about different possible events that could affect them, among the various threats to their enterprise, they considered physical damage to the business the greatest threat. The conclusions were that more than 85% of total claims were paid for lost profits and 75% of claims were paid for defaulted payments. While market risks to be protected against include personal and professional safety, vehicle breakdown, trade credit, and consequential loss, these market risks have relevant products to protect against them. Figure 8 reflects these results.

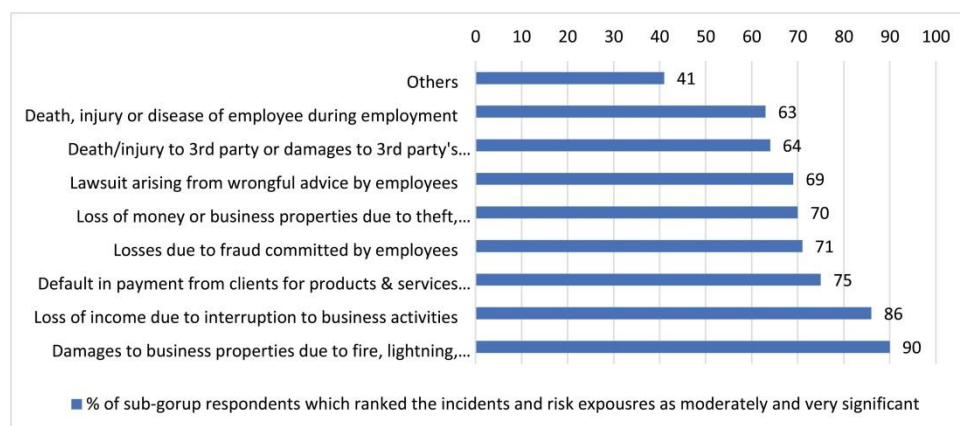


Figure 8. Ranking of their exposures that involves their operations and events which are significant to respondents

Source: Authors Estimation

According to the profiles of the respondents, the top three principal industries are Financing and insurance, Transportation and manufacturing, as seen in figure 4. These business lines are well-known for managing stocks. For lowering the chance of a cash loss, their commitment offers a substantial incentive for insurance policies. In this regard, Yamori (1999) emphasized that the risk of harm depends on the industry. There are other examples like the risk to chemical operators is larger because there are many extremely combustible products in use. The higher risk involved in certain industries could drive up the need for insurance. In this respect, insurance providers' business opportunities are not limited to providing insurance protection tailored to the needs of potential customers. Insurance providers may also provide advisory services to selected customers relating to risk management.

Respondents were surveyed about which of the risk exposures indicated in the questionnaire they experienced, covered by checking off each exposure, after which they were asked if they participated in an insurance plan or if they bought insurance to cover the items listed. The survey includes options for identifying several insurance policies, which the participants can decide.

A surprising number of survey respondents are willing to pay for insurance to cover injuries, break-ins, and property damage: for employee liability, 22% of respondents respond that they were interested; for employees' medical risks, 15% of respondents wanted coverage; and for property damage, there was 15% of respondents demanded insurance. According to the survey, workmen's compensation/liability employers and medical-related insurance products are often purchased. This is because they match product categories with common risk exposures. In addition, there is a lot of demand for fire-related insurance among people who use vaping devices, at 19% of respondents. The share of general insurance in the portfolio 20% is in the second position and matches what the report found when looking at how the various products performed.

Across all risk exposures, Figure 9 demonstrates the respondents with riskier business activities have a greater need for insurance, as evidenced by greater insurance subscriptions. Similarly, the data from the survey confirm that the associated public is aware of insurance issues.

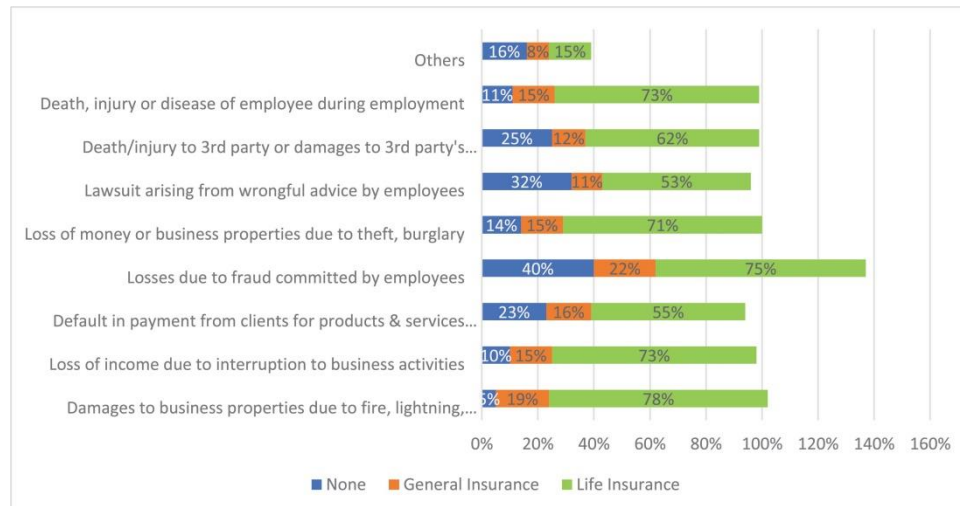


Figure 9: Insurance-related subscriptions for the respondents are categorized by their exposure to risk.

Source: Authors Estimation

Furthermore, the authors tried to find out whether the relationships between the respondents' own individual qualities and their use of insurance were evident. Size (in terms of the number of employees) and time in operation (i.e., length of time the institution has been in business) were used as proxies to select the firms and organizations to participate in the simulation.

Table-1 contains several risk exposures represented by different symbols. As shown in Figures 10 and 11, it appears that the relationship between the age and size of the participants, along with the participation rate of the participants in insurance programs, is positively correlated. Employees and years of operation were key predictors of participation in insurance coverage; the more employees and the longer the years of operation, the more people had participated in any type of insurance coverage. Additionally, as seen in Table 2, the correlation study completed across these variables supports this conclusion. There was a positive link between respondent age and size and between risk exposure and the inclination to get insurance coverage. In the latter, there was a better link.

At the time of study on corporate demand for insurance, we have found a link between firm size and the take-up of coverage, and the findings reflect those of previous studies. It was discovered by Hamid et al. (2009) that large corporations are more vulnerable to the burden of potential bankruptcy costs, which means that they need to diminish the risk of incurring those expenditures. This is accomplished by getting insurance coverage for both life and general liabilities. Larger firms face risk-shifting incentives to obtain insurance, as Mayers & Smith (1982) reported. The investigation confirmed that the firm's capital stock sets the limits on the amount of

risk that stockholders can be exposed to. Insurance company risk-shifting enables the business to effectively allocate risk, shifting the risk from the business to the insurance company. As a result, the company is more likely to buy insurance if its employees, customers, and suppliers get a bigger percentage of the company's production. The possibility of general insurance or life insurance coverage purchasing is higher for those respondents that have been in operation longer. This is especially true with general insurance, which tends to be a product people are more likely to buy the longer they have been in business. Perhaps this is because it's seen as less of a priority than other critical areas like pursuing additional clients by using advertising and other means.

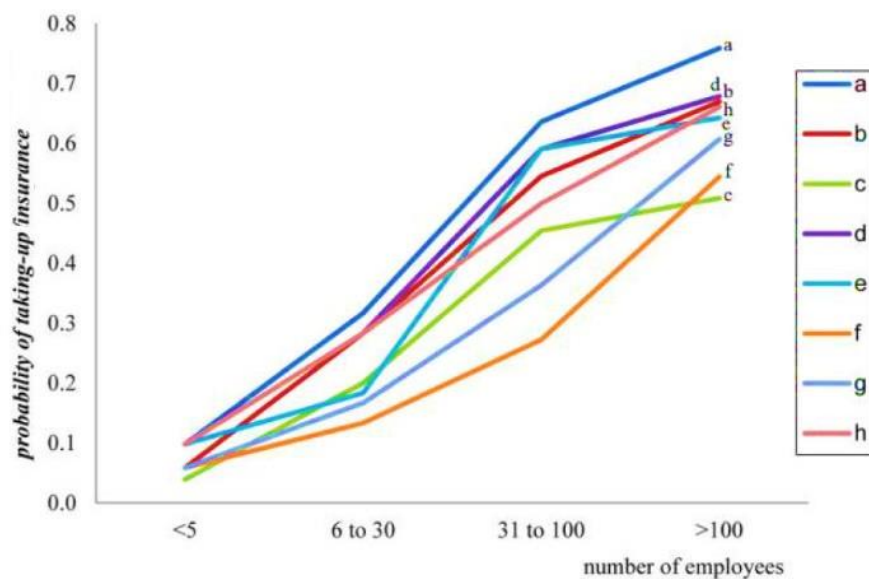


Figure 10. Results of respondent insurance preference: Probability plot by the number of employees.

Source: Authors Estimation

Risk Exposure	Legend
Damages incurred due to fire on businesses' property and premises.	[a]
Explosions, lightning, and others like burglary and theft losses that include broken/damaged commercial properties and facilities.	[b]
Damage caused by machine failure.	[c]
Ability to protect employees from being held legally liable for harm or illness while working.	[d]
Elimination of potential lawsuits if someone is hurt by or if someone's property is damaged by a third-party loss of company property and assets due to employee embezzlement.	[e]

Theft from the company because of dishonest employees.	
Loss of money or property during transit or on company premises.	[f]
Reimbursement for general medical treatments and hospital stays	[g]
Others	[h]
	[i]

Table 1: A breakdown of the risks and corresponding legend

Source: Authors Estimation

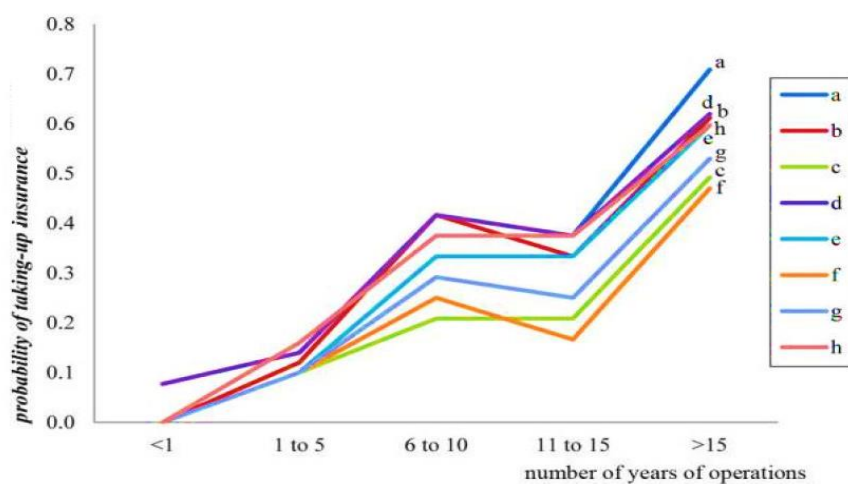


Figure 11. Probability plot of respondents' subscriptions to insurance based on the number of years of operations

Source: Authors Estimation

4.4 Considerations that come into play when looking for coverage

A significant aspect of the analysis of demand for insurance is how the participants in the survey evaluated their reasons for buying insurance. When considering getting an insurance policy, participants were asked how many of their preferences played a role in their decision. Nearly all respondents (97%) cited having someone defend their interests as important, as did 95% of the respondents, who were concerned about premiums. About 90% of the people valued customer service. According to this study, the frequency distribution of those who rated the various criteria as at least "rather important" was computed in relation to all respondents.

Legends	a	b	c	d	e	f	g	h	i
Size	0.4557	0.4093	0.3474	0.3860	0.4213	0.3410	0.3804	0.3916	0.1286
Age	0.5220	0.4901	0.3847	0.4725	0.4711	0.4632	0.4929	0.4763	0.2103

Table 2. Testing for a correlation between the take-up of insurance coverage among respondents and their age and size.

Source: Authors Estimation

The association between risk priority and insurance usage was examined in the follow-up test shown in Figure 12. Those who regarded each concern as significant are more likely to get insurance from their personal point of view, whereas those who deemed each aspect unimportant are more likely to take up insurance to cover others in their lives. The findings (which are on display in Table 3) make this quite clear.

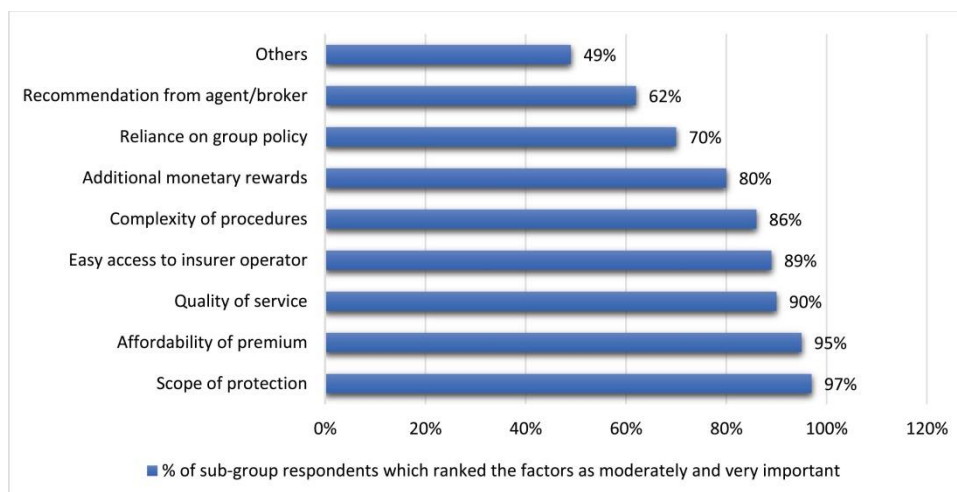


Figure 12. Survey respondents' consideration of considerations while making a decision about whether to buy insurance

Source: Authors Estimation

Risk Exposure	Take-up rate	
	Respondents Sample (%)	The entire Respondents (%)
i. Damages incurred due to fire damage to businesses' property and premises.	31	21
ii. Explosions, lightning, and other things like that. Burglary and theft losses that include broken/damaged commercial properties and facilities.	28	23
iii. Damage caused by machine failure.	41	27
iv. The ability to protect employees from being held legally liable for harm or illness while working.	35	25
v. The elimination of potential lawsuits if someone is hurt by or if someone's property is damaged by a third-party loss of company property and assets due to employee embezzlement.	27	19

vi.	Theft from the company because of dishonest employees.	33	18
vii.	Loss of money or property during transit or on company premises.	31	19
viii.	Reimbursement for general medical treatments and hospital stays	29	17
ix.	Others	32	14

Table 3. *The percentage of participants who are utilizing health insurance among those of interest (the test participants) as compared to the total sample.*

Source: Authors Estimation

The next sections highlight the results and conclusions on respondents who stated they had the insurance protection in place for their companies and organizations and those who chose not to buy any security services at all.

4.5 Survey Participants Who have Not Purchased Any Kind of Insurance Solution

Of the total corporations and organizations surveyed, approximately 58% of respondent stated that they do not currently have any type of insurance. This particular subset of survey takers was prompted to provide additional explanations for their lack of insurance coverage as part of the survey's predetermined answer options. There is a perception that a protection solution for institutions is more important than the weaknesses of the products or providers, according to these findings (i.e., the insurance companies). 40% of this group of respondents cited a negative perception of the importance of insurance coverage as a deterrent to signing up for any type of protection solution. Only 25% and 27% percent of the respondents cited pricing and complicated procedures as the reasons for their dissatisfaction. Figure 13 depicts the responses in greater detail.

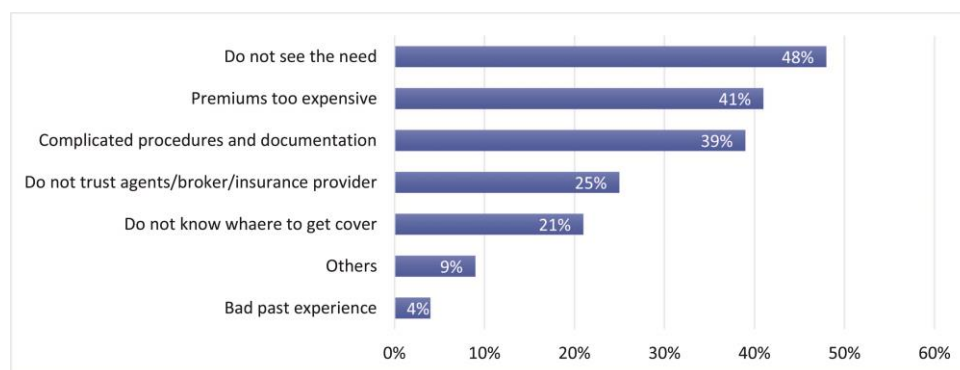


Figure 13. *Survey results about why people don't get insurance, broken down by respondent motivation.*

Source: Authors Estimation

The survey focuses on what is prompting customers to get their own coverage instead of getting insured and finding out what variables they are responding to.

The study, as illustrated in Figures 14 and 15, demonstrated how respondents in this survey chose to select insurance coverage largely because of a "positive reputation" of insurers (77% of respondents selected this factor), and Almost half of the participants supported better claim procedures (49 percent of respondents selected this factor). More than half of those who were polled chose "knowledge of insurance" (46 percent of respondents made this choice).

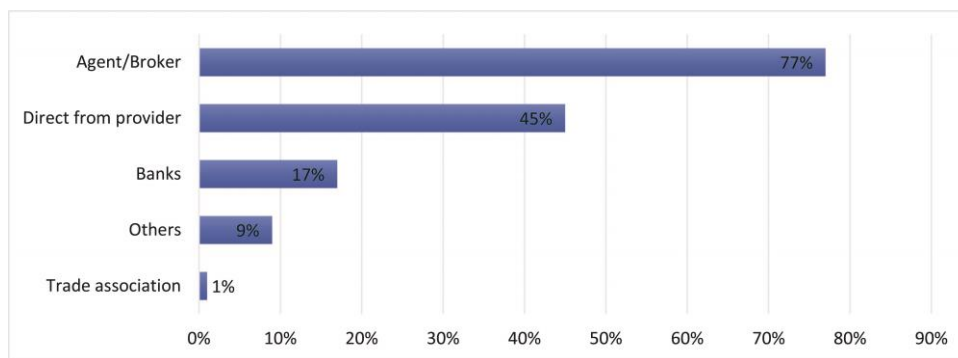


Figure 14. Channels methods utilized by survey participants to secure insurance
Source: Authors Estimation

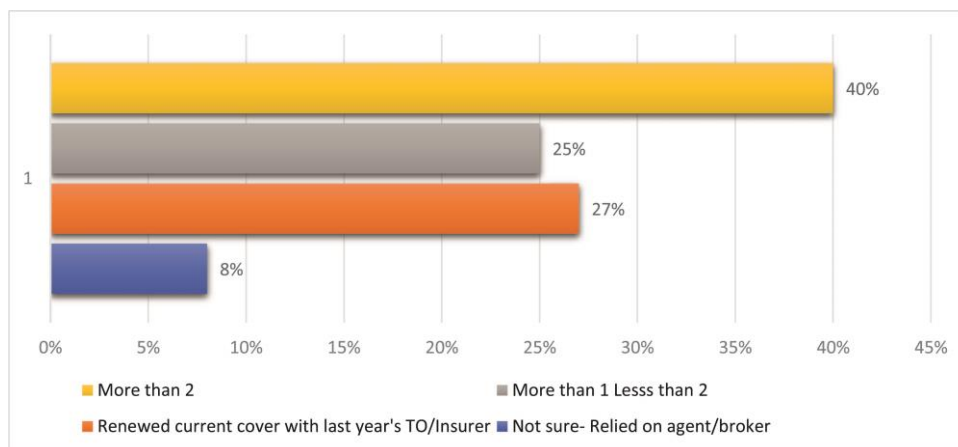


Figure 15. Total insurance carriers targeted for current coverage
Source: Authors Estimation

The results above imply that insurers will need to devote more resources to improving their market penetration in the corporate sector. Among the new strategies is increasing customers' understanding of insurance, which gives them a stake in the profits. Other ways to boost sales include improving services and rolling out more appealing products.

4.6 Respondents who opted for insurance coverage

An additional set of survey questions focused on the possible motivations for those survey participants who indicated that they had insurance coverage. Results are shown in Figure 16 and illustrate that "positive reputation of insurers," apart from "more effective claim procedures," was the most important factor for respondents to choose insurance (65% chose this factor as the most significant than 51%). One other significant factor was "familiarity with insurance" (chosen by 48% of those surveyed). More needs to be done to improve insurance's market presence among corporations, as shown by the aforementioned findings and research. Consumer awareness of insurance's value propositions and more customer-friendly products and services are among the measures taken.

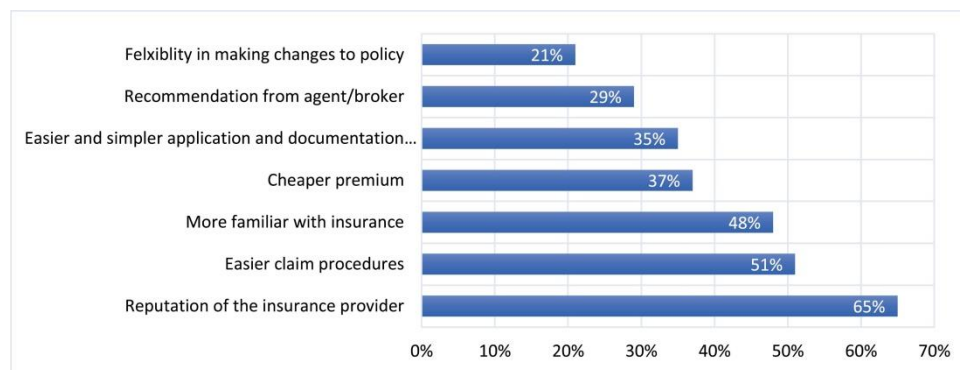


Figure 16: Ranking of factors for choosing insurance coverage

Source: Authors Estimation

According to the data presented above, more work needs to be done to improve insurance's market presence among corporations. This includes, for example, educating customers about the benefits of insurance and expanding the range of products and services available to them.

4.7 Respondents who chose not to acquire any of the protective solutions

More than a third of those who responded to the survey, which was sent to all firms and organizations, have stated that they have no insurance. For this particular group of people, the questionnaire prompted them to specify the reasons for not obtaining any coverage in a set of pre-defined answers. The results showed that having a protective solution is a more notable element than vulnerabilities in products or their suppliers (such as insurance operators and insurance firms). A distaste for insurance coverage was indicated by 36% of the group as the primary reason for not subscribing to any protection solution and was a dominant factor for the majority of the respondents. Other causes that were significantly less common were difficulties in pricing and lengthy procedures. For example, one in four consumers cited

difficulty in pricing items as a contributing factor, while almost one in five cited lengthy purchase procedures.

Given above the findings, it is important for insurance companies to boost their competitiveness and increase their customer base so they can better take advantage of this group.

4.8 Method of securing insurance coverage

When asked to respondents from where they obtained their insurance, participants were expected to reveal all of the places they went. To find out whether or not respondents had compared the terms of coverage from different insurance providers, we conducted a survey. 77% of respondents said they obtained their insurance through an agent or broker, indicating a strong reliance on intermediaries. It was also consistent with findings that 8% of respondents relied solely on the advice of intermediaries when purchasing insurance coverage for their company or organization.

In addition, 58% of those survey respondents answered that they purchased around for insurance before finally settling on a provider. In order to make this type of product comparison possible, intermediaries play a critical role. Figures 15 and 16 provide additional information on the results of the survey.

In order to examine the links between different channels and respondent awareness of Insurance availability, the data collected was parsed in order to assess the correspondence between channels and respondent awareness of insurance availability. This is used to determine if respondents use intermediaries to get coverage, regardless of whether or not they have previously heard of or used the company in question. While it might be surprising, it turns out that half of

The respondents were still using brokers to help get insurance, even though they were well aware of its availability. Only 32% of respondents received insurance coverage straight from the insurance companies or insurance brokers. This indicates that intermediaries are vitally important to the insurance industry as a whole. This makes sense because the experts know the special risks specific to each firm.

5.0 Conclusion

According to the findings of the study, the following conclusions can be drawn:

(1) Awareness of the accessibility of insurance

The interviewees were observed to be highly sensitive to insurance coverage availability. There has been greater awareness of insurance than that of the respondents' insurance. The majority of respondents have indicated that they are

ready to receive insurance policies to protect their businesses from risks. But only a handful had received the exposure already.

(2) Current subscription and protection need to insurance coverage

The three most pressing concerns, according to respondents, are the ones that would affect their organizations and operations, these are:

1. injuries to property,
2. monetary loss due to business disruption, and
3. payment default by customers

The survey showed a high insurance liability subscription rate with an emphasis on medical and workplace security. Insurance coverage usage has also been relatively high for fire-related coverage. In keeping with the greater understanding of risk among insurance respondents, there was more insurance reported compared to insurance coverage across all the risks identified. Individuals in our analysis tended to be of a good age and large in size and had high-risk exposure.

(3) Considerations involved with getting insurance coverage

The security coverage feature caught the interest of a number of respondents. The respondents' decisions on whether to seek insurance coverage determined how greatly insurance coverage impacted their level of risk and overall cost. Even though respondents have faith in the insurance security compliance feature, many of them still face risks because they don't have insurance coverage.

It looks like there are less competitive conditions for insurance products, which can be why insurance operators don't offer as many insurance products. That could be the reason why the insurance subset took over.

When asked to rank the types of insurance they prefer, respondents mentioned the insurers' superior reputation, more efficient claim procedures, and their own experience with insurance compared to insurance in the results.

Respondents mentioned that they believe insurance isn't necessary for a school and are worried about the steep fees and confusing policies for getting coverage.

(4) Prior insurance coverage experience

The research concluded that intermediaries had excellent insurance coverage penetration. Agents and brokers were the primary avenues for finding coverage among the respondents.

The survey results indicated SMEs' capacity as a target market. The report also indicated that insurance operators tended to have a limited understanding of their available options, but they are nonetheless interested in having more coverage.

Recommendations

To summarize, the survey results suggest the criticality of implementing change measures to ensure to have more efficient business practices at the end of insurance operators. There is also a need to enhance the market presence of insurance providers, which is an important part of the overall insurance market staying significant and competitive. Providers can reach corporate customers, in particular, small and medium-sized enterprises. Consciousness and recognition of insurance-protected economic and social advantages can be a key element in bringing more companies and organizations to insurance companies. Knowledge asymmetry could be reduced by better educational and informative interaction on insurance theory and application among potential insurance participants.

Investment and promotional plans, as well as the kinds and nature of their products and services, must be planned by insurance providers to suit the market segment in which they wish to engage. For insurance providers, it is particularly important not only to rely on customer demand as a key point of sales for their efforts to draw attention to their target market segment. Instead, competition in the market should take precedence over the reasonable price and easy customer access, based on features and scales of products and on the quality of services offered. Insurance providers can increase their market penetration and reach unserved markets with their full coverage, appealing product features, and effective advertising. The strengthening of the market presence and the strengthening of cooperation between agents and brokers are important. Last but not least, there is a need to strengthen the professionalism of the middlemen and insurance providers in serving customers and ensuring long-term interactions with them is also guaranteed. This research is constrained because it examines Bangladeshi insurance market and corporate perspective exclusively. The findings are significant since they include all major demographics in the insurance sector and those consumers in the target market (although they may not be conclusive). Future work into company and association attitudes towards general insurance will research by investigating similar focus groups in order to discover new trends and obtain new insights. The findings may be relevant for other nations offering insurance.

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JOB SATISFACTION AS A DETERMINANT OF EMPLOYEE PERFORMANCE: A STUDY ON THE EMPLOYEES OF PRIVATE COMPANIES OF BANGLADESH

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Abstract

The aim of this study was to examine the effect of job satisfaction on employee performance among the private companies of Bangladesh. For this purpose, a well-structured questionnaire of a five-point Likert-type scale was used to measure work satisfaction and employee performance. The data were collected through applying simple random sampling method from the respondents. After collecting the data from the field, the researchers went through a comprehensive statistical analysis to determine the study aims. However, the study's findings suggest that the following elements contribute to job satisfaction: remuneration, promotion, sense of accomplishment, growth opportunities, interpersonal relationships, work pressure, and self-actualization. It has also been shown that the elements of remuneration, promotion, sense of achievement, and growth opportunities have a considerable beneficial impact on employee performance in Bangladeshi private companies.

Keywords: Job Satisfaction; Effort; Performance; Bangladesh.

Introduction

In today's intensely competitive world, every organization's success is dependent on their human resources. Furthermore, human resources are amongst the company's most valuable assets which not only increases the company's efficiency and effectiveness but also a unique competitive advantage for the company. Consequently; the company's performance is strongly influenced by its employee's dedication and focus on achieving the company's long-term goals (Khan et al. 2012; Hidayah & Tobing, 2018). Since organizations achieve strategic goals through initiatives at the workplace and employees constitute a primary determinant of the future success through their experience, expertise, and abilities. (Vokic & Heanaus; Bruck, et al., 2002; Turkyilmaz et al., 2011). Apart from it, human resources are by and large the source of power that utilizes other resources and obtains the best return from them. Yet getting the best out of human resources requires massive organizational and management steps. When the human resources or employees are satisfied to deal with the movements and actions of managers, they make an effort for the sake of the company. But if they aren't in that condition They may result in

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significant losses for the organization. However, in order to achieve an organization's high degree of performance advancement, a highly pleased workforce is a must, since satisfied workers put in more job-performance effort, and then work harder and better (Navale, 2018). Organizations; therefore; try to ensure that they have a sufficient workforce to help meet the organization's long-term goals. However, job satisfaction is basically the mental state of an employee on particular job-related tasks and different aspects of their employment. A person with high job satisfaction feels good about his or her employment, whereas a dissatisfied employee feels bad about his or her job (Robins & Judge, 2013). Moreover, it has been observed that employees who perform high-quality work are generally satisfied with their jobs. Happy workers tend to have high retention rates; they are more organizationally involved and continue to achieve higher job efficiency (Arif & Chohan, 2012) and employee satisfaction is a critical factor in determining organizational success and should therefore be of major concern to companies, meaning that it is necessary to know how to retain employees through their workplace satisfaction which generates greater quality performance of employees (Ubaka & Altamimi, 2017). There's a significant relationship between employee performance and job satisfaction. A better understanding of its meaning needs further work.

Since competition is very high nowadays. Hence, each and every organization must be competitive with another organization. In this regard, the business expects greater performance to be obtained by gratifying employees in order to create competitive advantage, which requires the organization to retain labor. Therefore, the company needs to satisfy its employees in order to achieve their goals. However, the purpose of this study is to investigate at the influence of work satisfaction on employee performance in Bangladeshi private companies.

Job Satisfaction

Since the 1900s, several researches have focused on job satisfaction, and many definitions have been presented in the literature (Handsome, 2009: 39). Locke (1976) defines job satisfaction as a delightful or favorable psychological response arising from the evaluation of one's job or a job experience, which is one of the most commonly, used definitions of job satisfaction in organizational research. Job satisfaction, according to Simatwa (2011), is a function that is positively connected to the degree to which one's personal requirements are met at work. Robbins (2006) also claimed that Job satisfaction is a common response to work performance, and there are appropriate benefits and success. In principle, job satisfaction is connected to productivity. Employee happiness has been related to greater organizational performance and productivity. In addition, Affective and cognitive components make up job satisfaction. The employee's degree of positive and negative sentiments toward his or her job is the affective component, while the employee's thoughts and

beliefs about his or her job constitute the cognitive component (Schleicher, Watt, & Greguras, 2004).

Employee Performance

Performance is a stage in the process of completing a task (Simanjuntak, 2011). It indicates that quality of work is a level of achievement in which a person from the company completes a task. However, employee performance refers to a task's completion or an employee's ability to work efficiently (Thomas, 2014). It's a method for corporate and governmental organizations to attain their objectives by repeating operations. According to Rotundo and Sackett, 2002; job performance refers to the visible behaviors that individuals witness at work that are crucial in attaining organizational goals, and these behaviors must be relevant to the organization's goals. In the words of (Mathis, Fredrick and Kenneth, 2009); employees' performance is linked to amount of output, quality of output, timeliness of output, presence or attendance on the job, morale at work, efficiency of finished work, and effectiveness of completed work.

Relationship between Job Satisfaction and Employee Performance

Employees who are satisfied with their jobs can put out remarkable effort and improve their performance because of their strong morale and drive. Fisher (2003) studied managers, supervisors, and employees and found that the majority of them felt that feelings of pleasure are linked to performance. Job satisfaction is one of the drivers of job performance, and several studies have found a link between job satisfaction and job performance. It's also pretty apparent that happy employees bring in even more revenue (Ahmed et al. 2010). Cummings (1970) identified three main frames of view on this topic. Performance leads to contentment, which leads to performance, and incentives lead to both performance and satisfaction.

Review of Literature

A study by Sun et al. (2021) looked at the impact of organizational decentralization on job satisfaction and performance. They discovered that employee job satisfaction and performance are linked to the degree of decentralization. Employee happiness is influenced by decentralization because it increases employee engagement in decision-making and freedom in achieving personal objectives. Employee satisfaction is better in projects with a high degree of decentralization. Because of its impact on information and knowledge transmission, work efficiency, work excitement, and job satisfaction, the degree of decentralization in a project has an effect on job performance. According to Tran, et al. (2020) investigation, job autonomy, intrinsic drive, and job happiness are all important factors in the anticipated support and quality of work link, with the usability of social media

channels having a perplexing role. Another study by Ye, Liu, and Gu (2019) found that work satisfaction promotes the connection between conflicts and perceived job performance, whereas collectivism moderates the conflict-job standards of excellence.

In their study Platis, et al. (2014) tried to investigate the relationship between job satisfaction and job performance in healthcare services in Greece based on job satisfaction parameters versus self-employment satisfaction parameters. The study findings indicate that the most important metrics for job satisfaction are (based on their weights respectively): manager satisfaction, manager satisfaction, employee satisfaction, satisfaction with appreciation, good working hours and satisfactory work safety. Self-satisfaction with the amount of work, self-satisfaction with performance, self-satisfaction with services, self-satisfaction with job goals and self-satisfaction with quality improvements. In his study, Navale (2018) surveyed professionals, managers, and non-managers from 20 private sector businesses in India to see how work happiness affects employee performance. Higher-level employees continue to draw more happiness from intrinsic incentives, whereas lower-level employees tend to derive more satisfaction from extrinsic rewards, according to the findings of the study. The amount of job satisfaction is determined by factors such as the workers' age, gender, and experience.

Abuhashesh, et al. (2019) conducted a study to determine factors affecting employee satisfaction and performance in the tasks relevant to their work among the employees of Jordan Industrial Sector. The findings indicated that the Jordanian workers care most about their pay and position themselves more than any other factor. The study also suggests that plan to study the pay range for each job so they don't miss out on talented individuals or lose a good employee. In their study, Alromaihi, et al. (2017) attempted to investigate the elements influencing work satisfaction and the drivers of employee performance in Bahrain. The study's findings reveal the dual nature of the link that connects process cause and effect, namely, contentment leads to success and performance leads to satisfaction, depending on the number of mediating elements. Successful firms, according to this study, are those who use satisfaction and performance evaluation tests on a regular basis to monitor the level of these crucial factors and establish remedial actions. In their study; Anitha & Pragadeeswaran (2016) conducted a survey to determine the impact of job satisfaction factors on the performance of employees in India. They examined the positive attitude of a happy employee to work more and develop his knowledge/competence/ engagement to achieve organizational objectives. They find that satisfied employees work effectively and efficiently towards the organization's outcome / output / efficiency.

Fadlallh (2015) conducted a survey in the faculty of science and humanity studies at the University of Salman bin Abdul-Aziz-Aflaj branch in Saudi Arabia to

determine the effect of job satisfaction factors on employee performance (impressions, inclinations, expectations, and visualizations of employees of their jobs). He discovered that when working circumstances are better (such as compensation and progression, as well as working relationships), job happiness and performance in the collage are higher. Hossain (2014) measured job satisfaction of Bangladesh's bank employees in his study. He identified that organizational variables such as working conditions, pay, fairness and promotion have significantly affected the Bank's employee satisfaction and age and gender in Banks did not have a significant influence on employee satisfaction. In their study Javed, et al. (2014) attempted to explore the determinants of job satisfaction and its effect on employee performance, Bahawalpur, Pakistan. The study results show that his happiness would improve when workers have flexibility in business decisions, beneficial and clean climate. It also shows that the level of job satisfaction and motivation influences the productivity of employees. Sarker (2014) investigated how effective HRM practices in Bangladesh's private commercial banking industry may improve employee job satisfaction and organizational performance. He discovered that better salaries, incentives, and involving employees in decision-making increase employee productivity or performance.

According to Singh and Jain (2013), employee job satisfaction may be attained by providing a work environment that sustains employee job happiness as well as inspires employees to achieve outstanding performance at the workplace, attaining work-life balance. They demonstrated that a positive work atmosphere and favorable working circumstances may boost employee job satisfaction, and that employees will go above and beyond to improve their job performance. Aziri (2011) found that job satisfaction has a disproportionately high influence on employee motivation, and that motivation has an impact on productivity, and hence on business performance. Christen, et al. (2006) had done an extensive research to resolve discrepancies in the literature on the links between three major work relationship constructs: effort, job performance, and job satisfaction. They identified a negative, direct influence of effort and a positive, direct effect of work performance on job satisfaction using a model including variables that are essential for both agency theory and organizational psychology.

The above evidence strongly suggests that many studies have been conducted in the field of job satisfaction and employee performance, but there is a clear gap that, according to the best of our knowledge, none of them has demonstrated the impact of job satisfaction on the performance of employees among private companies of Bangladesh. So, this study is thus an attempt to expose the crucial issue identified above.

Research Questions

This study addresses the answer of the following research questions:

- What is the level of job satisfaction among the employees of private companies of Bangladesh? and
- Which of the factors of job satisfaction do influence mostly on the performance of employees?

Rationale of this Study

The rationale of the study was to identify variables that induce job satisfaction among the employees of private company's operating in Bangladesh and how these variables affect employee performance. Furthermore, it aimed to propose successful ways to enhance the level of satisfaction of workers in these organizations to gain their dedication.

Conceptual Framework of the Study

The factors that form the subject of this study have a strong link from theoretical and empirical research. Based on the explanation of not just the issues in the settings of having some theoretical studies and empiric research to follow them up. However, job satisfaction was shown as an independent variable, whereas employee performance was designated as a dependent variable in this study. The focus of this study is to determine which aspects of job satisfaction lead to an organization's employee's improved performance. As a result, the study's conceptual model is uncomplicated, as illustrated below.

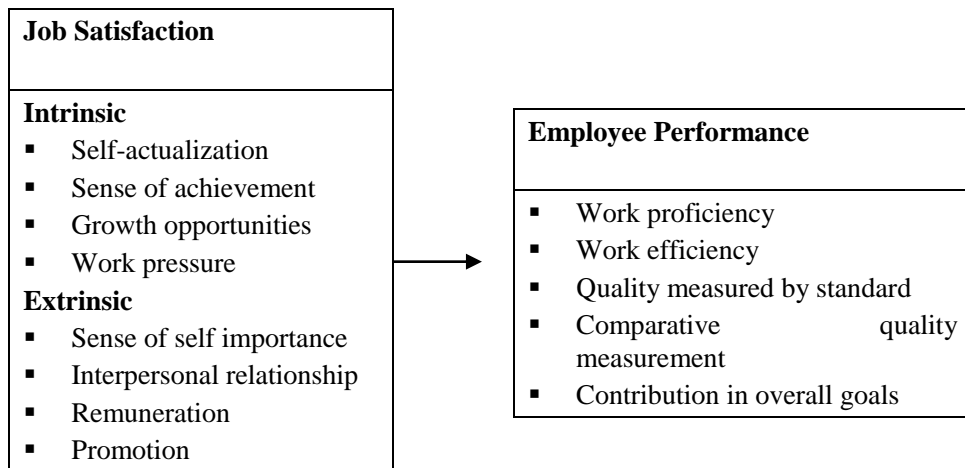


Figure: Conceptual framework of the study.

Objectives of the Study

As per literature it is clear that a satisfied employee can lead the organization through his/her performance. But in Bangladesh context, especially in private

companies' job satisfaction issue need to care properly to bring out the best from the employees. However, the current study was conducted to achieve the following objectives:

- to identify the level of job satisfaction of employee among the private companies of Bangladesh;
- to investigate the factors of job satisfaction affecting mostly in the performance of employees; and
- to examine the impact of job satisfaction on the performance of employees among the different private companies of Bangladesh.

Methodology of the Study

Origin of Data

In this study, both primary and secondary data were employed. Secondary data and information were gathered from existing literature in the subject, while primary data was gathered via a questionnaire survey.

Questionnaire Design

The questionnaire design is critical for achieving the study's goal since it directs the remainder of the research process. Questionnaires have a number of advantages over face-to-face surveys, including the ease with which they can be analyzed, the fact that they are known to most people, the ability to eliminate bias, and the fact that they are less invasive. A well-structured questionnaire with a five-point Likert-type scale was used to measure work satisfaction and employee performance, with 5 indicating strongly agree and 1 indicating strongly disagree. The questionnaires for job satisfaction were adopted from Tsui et al. (1992); Yu et al. 2007; and Sun et al. 2021. These three studies were combined to produce this questionnaire. In addition, the questionnaires for employee performance were adopted from Wang (2011); Hendri (2019) and Sun et al. (2021). Furthermore, two different sorts of questionnaires were designed. Job satisfaction questionnaires had been produced for employees to measure the satisfaction level of employees of the private companies; on the other hand, the questionnaire for employee performance had been designed for managers to get a performance scenario of the employees.

Study Area & Selecting Sample

This study was carried out in Bangladesh's two major cities, Dhaka and Mymensingh. In addition, the data were collected between March 12 and June 5, 2021. This study applied simple random sampling for collecting data. For this survey, 235 questionnaires were distributed to employees through hand-delivered mail across the company's various branches. But the survey only examined 190

responses for analysis due to lack of proper responses. Among them, 170 received from employees and 20 from managers.

Pilot Testing

Initially, the questionnaires were distributed to a small group of participants as part of a pilot study. A total of 15 copies were collected for the pilot testing. To make the present study more realistic, the authors made a few small adjustments to the pilot survey questionnaire and included some extra criteria.

Reliability of Data

Reliability is the degree of precision with which an instrument calculates a characteristic (Polit & Hungler, 1999). The initial durability of the items was validated using Cronbach's alpha. According to Cronbach's alpha, a minimum alpha of .60 is required for early stage testing (Nunnally, 1978). However, Cronbach's alpha for all of the factors is .784 which signifies satisfactory efficiency.

Table-1: Reliability Statistics

Cronbach's alpha	Items
.784	13

Data Analysis Tools

In three steps, the data was examined. Descriptive statistics and multiple regression were employed to articulate the data via SPSS 16.0.

Hypothesis

In order to find out the effect of job satisfaction on employee performance; the study tests the following hypothesis:

Ha: There is a significant relationship between the job satisfaction and employee performance among the different private companies of Bangladesh.

Results and Discussions

Respondents' Profile

The table below (table 2) shows the profile of the respondents:

Table 2: Respondents Profile

Particulars	Total	
	(N)	(%)
Gender		
Male	145	76.32

Female	45	23.68
Total	190	100
Age	(N)	(%)
20-30	70	36.85
30-40	44	23.16
40-50	40	21.05
50-60	36	18.94
Total	190	100
Education	(N)	(%)
Graduate Level	80	42.11
Postgraduate Level	110	57.89
Total	190	100
Position	(N)	(%)
Employee (other than managers)	170	89.47
Managers	20	10.53
Total	190	100
Working years	(N)	(%)
Less than 3 Years	38	20
3-6 Years	62	32.63
6-9 Years	48	25.26
9-above	42	22.11
Total	190	100

The above table 2 shows that most of the respondents are male (76.32%), majority of them are in the age of 20-30 (36.85%). All the respondents are educated and the none is less than the level of graduation and mostly (57.89%) have completed post-graduation. The table also reveals that most of the respondents are employees other than managers 89.47% and the majority (32.63%) of them have 3-6 years of experience of working.

Respondents' Opinion

Following table 3 shows the descriptive statistics for each of the factors of job satisfaction and employee performance based on the respondents' opinion:

Table 3: The respondents' opinion regarding the factors of job satisfaction and employee performance Table-3:

Particulars	Mean	Std. Deviation	Rank order
Remuneration (R)	4.27	0.611	1 st
Promotion (P)	4.23	0.547	2 nd
Sense of achievement (SOA)	4.11	0.506	3 rd
Growth opportunities (GO)	4.03	0.576	4 th
Interpersonal relationship (IR)	3.66	0.728	5 th
Employee Performance (EP)	3.41	0.532	6 th
Work Pressure (WP)	3.36	0.527	7 th
Self-actualization (SA)	3.14	0.699	8 th
Sense of self-importance (SSI)	2.38	0.674	9 th

Scale: 5= Strongly Agree, 1 = Strongly Disagree

The highest mean value for the variables Remuneration (R), Promotion (P), Sense of achievement (SOA), Growth opportunities (GO), Interpersonal Relationship (IR), Work pressure (WP), and Self-actualization (SA) are 4.27, 4.23, 4.11, 4.03, 3.66, 3.36, 3.14, respectively, as shown in the table above. It shows that, in the respondents' perspective, these elements are sufficiently available in their companies; yet, the respondents' opinion also indicates that the factor Sense of self-importance (SSI), i.e. 2.38, is not suitable in their organizations. Furthermore, the respondents' level of employee performance (EP) is 3.41 on a scale of 1 to 5.

Job Satisfaction Factor's Effect on Employees' Performance

This study used the multiple regression analysis to show whether the factors of job satisfaction have any influence on the employee performance among the private companies of Bangladesh. The output of the analysis and the interpretation are in the following table 4:

Table 4: Influence of job satisfaction factors on employee performance Table-4:

Factors (Variables)	B	Std. Error	T	P
(Constant)	4.083	.519	10.338	.000
Self-actualization (SA)	.330	.567	1.62	.066
Sense of achievement (SOA)	.440	.046	2.01	.003
Growth opportunities (GO)	.350	.054	1.98	.000

Work Pressure (WP)	-.455	.064	1.24	.056
Sense of self-importance (SSI)	.035	.083	1.01	.058
Interpersonal relationship (IR)	-.044	.071	1.12	.063
Remuneration (R)	-.036	.069	2.59	.001
Promotion (P)	.233	.053	2.06	.338
R = .813 and R ² = .66				
Dependent Variable: Employee Performance (EP)				

The above table (table 4) shows the value of the coefficients of the regression model. It shows that the T- value for the factors Remuneration (R), Promotion (P), Sense of achievement, and Growth Opportunities (GO) have 2.59, 2.06, 2.01, and 1.98 respectively. It signifies that these factors have a significant positive influence on the employee performance among the private companies of Bangladesh. The findings are also identical to the earlier studies of Syed (2020) Fadallah (2015), Al-Ajoumi (2015), Hutabarat (2015), Hanzaeel & Mirvaisi (2013), Hussin (2011) and Nimalathan & Brabete (2010) The factors Self-actualization (t=1.62), Work pressure (WP) (t=1.24), Interpersonal relationship (IR) (t=1.12) and Sense of self-importance (SSI) (t=1.01) have no significant influence on the employee performance because they have the t value less than the threshold (1.96). The study of Tran, et al. (2020) also pointed out that an employee with stress can't work better. Again, people would be better off, according to Ellis, (1979) if they ceased convincing themselves that they are deserving. Thus, the result demonstrates that both monetary and non-monetary aspects are equally crucial in ensuring the satisfaction of employees which leads to increase the performance of employees among the private companies in Bangladesh.

Conclusion

This study highlighted the relevance of workplace satisfaction elements in predicting greater performance levels among existing workers. According to this study, there is a favorable link between job satisfaction and employee performance. High levels of fair promotion, a fair pay structure, suitable job, and decent working conditions all contribute to high levels of employee performance. To put it another way, job satisfaction has a beneficial influence on employee performance. To do this, employee satisfaction must be controlled in a number of ways. This aids in the retention and development of "true believers" who can add value to the company. Since job satisfaction is regarded as one of the most important elements influencing the efficiency and effectiveness of businesses and it has a major impact on organizational measurements. Future HR managers will face a problem in expanding and fostering the number of "true believers." This entails a high level of creativity and invention. Employee performance is affected by job satisfaction. As a result, in

order to boost productivity, businesses must focus on these concepts. Employee motivation leads to job satisfaction, which in turn increases employee performance.

Implications

This study adds to our understanding of how inner and extrinsic job satisfaction elements interact to increase work performance in an autonomy-supportive setting. The effects are also obvious for managers. Employee performance is improved by a supportive workplace and employee satisfaction, according to the research. As a result, the results offer organizational and HRM experts and practitioners a better understanding of employee satisfaction and employee performance and they back up recommendations that positive and satisfied work environments are preferable. Furthermore, to boost employee performance via job satisfaction, organizations should provide good working conditions, good relationships among workers, employee performance feedback, unbiased promotion, good grievance procedures, disciplinary procedures, and equitable employment opportunities.

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THE ROLE OF RIDE-SHARING BUSINESS IN CREATING INFORMAL EMPLOYMENT OPPORTUNITIES IN BANGLADESH

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Abstract

Ride-sharing services have been viewed as heralding the next generation of mobility and recognized for their potential to provide an alternate and more flexible model of work. These services have also been used for creating employment, increasing income opportunities, and empowering the informal economy of the nation. This is a qualitative investigation of the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country. This study conducted 20 in-depth interviews of ride-sharing drivers and commuters in Dhaka city of Bangladesh. The collected data were analyzed thematically. The findings indicated that informal employment through secured app-based infrastructure, positive socio-cultural attitude, and inflation control, reduction of unemployment and income inequality, avoidance of economic corruption, women's employment, and economic development had been meaningfully enhanced by ride-sharing business in Bangladesh. The findings thus suggest government policy planners formulate favorable policies to boost ride-sharing businesses in Bangladesh.

Keywords: Ride-sharing Service, Informal Employment, Commuter, Dhaka dwellers, In-depth Interview, Qualitative Approach

1. Introduction

According to the report of the World Bank (2020), half of all workers now work in the informal economy in the world. This report also shows that the informal sector, on average, accounts for about one third of official Gross Domestic Product (GDP) and about 70% of total employment in Emerging Markets and Developing Economies (EMDE). Informal employment is usually marginal and sweatshop-like work that contributes to the development of the country's economy and society (Williams & Lansky, 2013). Informal employment is defined by the 17th International Conference on Labor Statisticians (ICLS) as the employment comprising the total number of informal jobs, whether carried out by informal sector enterprises, or households (Husmanns, 2004). Informal employment is also defined as any work that is not incorporated within formally regulated structures and involved in such employment that does not have to pay taxes on their incomes (Chen, 2012). A person can be informally employed besides formal employment (Hohberg & Lay, 2015).

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At present informal employment is seen as a significant source of livelihood for many people in Bangladesh like in many developing countries (Reza, 2017). With formal sector job availability that has not kept pace with the growth of the labor force, the formalization of employment being procedurally difficult, and the allure of benefits such as being free of taxation, a staggering 85% of total employment is estimated to be informal (Shahnaz, Rahman & Sadaf, 2018). Due to the huge pressure or facing a lack of employment opportunities in the formal sector in Bangladesh, the people have paid an immense tendency to generate employment for themselves as street vendors, carpenters, cross-border traders, sculptors, and brick-molders, etc. (Mujeri, 2020). Contrasting usual motorbikes, four-wheel taxis do not represent a formal type of public transportation but have constantly belonged to the informal transportation sector. Ride-sharing drivers are not defined as employees but are defined as self-employed or the part of the informal employed (von Vacano, 2017). These ride-sharing services have opened a huge opportunity for the employment of many people in Bangladesh and therefore helped to reduce unemployment (Karim, 2020).

Ride-sharing is a type of transportation, supplementing public transport, in which more than one passenger shares the utilization of an automobile such as a van or car, or motorbike to have a trip (Shaheen & Cohen, 2020). Ride-sharing is an arrangement in which a passenger travels in a private vehicle by its owner for a fee, especially as arranged using a website or app. Simply it can be mentioned that ride-sharing is a service that connects drivers with people looking for rides (Keiloch, 2019). This service is an app-based that provides commuters to connect with a network and this app calculates the fare of the ride according to real-time demand/supply data, traffic data, as well as distance (Tarek & Amit, 2019). The market size of this service is expected around the United States Dollar (USD) 61 billion to USD 218 billion from 2018 to 2025, and it is anticipated that the market size of ride-sharing will reach around USD 285 billion annually by 2030. Moreover, this business is projected to append approximately 100 million users worldwide by 2022 (Wang, 2019).

The ride-sharing services are playing an immense contribution to the issues of the economic, social, and environmental welfare by reducing traffic jams and making a minimum number of vehicles on the road (Hansen et al., 2010). This service attracts the people particularly the young generations, job seekers, investors, businesspersons, and government officials to use and invest in this industry. Therefore, the ride-sharing service creates a lion's share of acceptability in developed as well as developing countries (Chan & Shaheen, 2012). This service is the most friendly and convenient to commuters than other modes of transportation. From the viewpoint of the users, it is such a type of transportation mode which saves time and cost-effective than that traditional transportation. On the other hand, it creates the social benefits of

reducing traffic jams and saving huge working hours. From the business viewpoint, it generates major revenue by increasing market share by creating employment (Yu, Ma et al., 2017). Moreover, it rises and untapped opportunities to capture the potential market (Sakib & Mia, 2019). This service is providing benefits by offering new dimensions of services and a new avenue of earning profit (Belk, 2014). In addition to these, this service eliminates the problems of traditional transportation and provides potential relief from congestion and improved travel options (DeMaio, 2009).

Within a short time, many ride-sharing businesses launched with innovative technology to have the mobility of the passengers more expediently and flexible and generate informal employment opportunities for the people of Bangladesh especially the young generation of the country (Islam et al., 2019). Moreover, this service attracts new companies and provides people to use this frequently, which is further creating a new avenue to enter the market and making the competition intense. Ride-sharing businesses play an important role in improving the security conditions of both drivers and riders (Sakib & Mia, 2019). This app-based work providing services to communities lends itself well to employment generation through labor-intensive methods. Simply, ride-sharing is grabbing the opportunity of informal employment, as there is a lacking of sufficient job growth in the formal sector of the economy (Hossain, Siddique & Islam, 2015). The minimum income of people who are facing the decrease in the household purchasing power is justifying themselves in the entrance to informal employment like ride-sharing. To engage with such informal employment people are finding a way to fight against poverty and economic corruption (Eisenmeier, 2019). Like other informal employment, the ride-sharing industry is notable potential to better include and serve women to engage in employment. Moreover, ride-sharing businesses are an emerging model of informal employment that positively contributes to economic development and sustainability (Nowshin, 2020).

Studies by Islam et al. (2019) and Sakib & Mia (2019) have focused on the ride-sharing business to attain its present scenario, prospects, and problems. Moreover, Ahmed et al. (2020) stated that developing countries like Bangladesh address earnings from the ride-sharing services and their contribution to the economy of Bangladesh. The emergence of optimum application of ride-sharing business in the informal sector is largely ignored. Moreover, scholars have paid inadequate attention to linking the ride-sharing business and informal employment creation. To the best of my knowledge of the researcher, there is no good documentation in the existing literature regarding the reorganization of ride-sharing as an informal sector, even; though the idea is far away in the context of a developing country like Bangladesh. Therefore, this study intends to investigate the role of the ride-sharing business in creating informal employment opportunities in Bangladesh.

The paper expects that the findings of this study would add valuable insight into the literature on this area of study and fill this study's research gap on how ride-sharing businesses informally create employment opportunities in a developing country, especially in the context of Bangladesh.

2. Background and Overview

This study aims to address the roles of ride-sharing businesses in creating informal employment, especially in the context of Bangladesh. The notion of informal employment is considered related to the transition and developing countries as well as developed countries (Yu, 2012). Employees are thought to be informal when their employment relationship is in law or in practice that is not in accordance with national labor legislation, income taxation, social protection, or prerogative to definite employment payback or benefits (Goldman, 1999). This type of employment is concerned with limited short duration; jobs with hours of work or wages below a particular threshold. These are the employees which are not incorporated enterprises or by persons in households; employment where the employee's location of the job is outside the site of the employer's enterprise (Hussmanns, 2001). This is the work without an employment contract. Moreover, labor regulations are not applied, not enforced, or not complied with for any other reason for informal employment (Chen 2012). Accordingly, examples of informal employment are street vendors, taxi drivers; home-based workers, etc. Informal employment, however, include types of job which has no comprehensible employer-employee relationship (Maligalig, Cuevas & Rosario, 2009). Therefore, this study explains how the ride-sharing business informally creates employment in Bangladesh.

The informal sector in Bangladesh is approximately projected to contribute about 64% of total GDP (Shahriar, Arafat & Alam, 2019). According to BBS (2019), the total population in Bangladesh was approximately 168.31 million from whom about 106.1 million people were working-aged. Out of this working population, only 13.8% were employed formal employment and the rest (86.2%) were in informal employment (Rahman, Bhattacharya & Al-Hasan, 2019). According to the quarterly Labor Force Survey (LFS), in 2019, 2.6 million people were estimated as unemployed in Bangladesh at the rate of 4.2% of the labor force. In the informal sector, the highest rate is in the agricultural sector and then the industrial sector followed by the services sector. More than 2 crore young people are employed in Bangladesh, having 33.5% of the workforce. Overall, 79.6% of the unemployed are youths (ur Rahman & Hossen, 2019). In Bangladesh, about 90% of the youth people are engaged in employment in the informal sector as they face the daunting task of creating formal jobs (Mussida & Sciulli, 2020). It can be argued that the creativity and resourcefulness that characterizes informal employment can even prompt it to become an engine of growth in Bangladesh. In Bangladesh, technology is creating

opportunities in the informal sector economy. New industries produce informal employment such as shared ride drivers, homestay hosts, and e-commerce logistics (Karim, 2020).

The international ride-sharing app, Uber initiated its ride-sharing operation in Bangladesh on 22nd November 2016 (Ahmed et al., 2020). 10 companies such as Pickme Limited, Pathao, OBHAI, Chaldal, Computer Systems, Akash Technology, Ezzyr Technologies Limited, Segesta Limited, Shohoz Limited, and Uber Bangladesh Limited obtained the license in Bangladesh in July 2019. In Bangladesh, the top three ride-sharing services are Uber, Shohoz, and Pathao. It has already been an extensive embracing of app-based ride-sharing by Dhaka dwellers. In Bangladesh, ride-sharing services have obtained popularity for their supportive functionality (Cynthia et al., 2019) and it has been a safer transportation mode than any other public transport in Bangladesh (Dills & Mulholland, 2018). The increased use of social media, especially by young people gradually reduces the level of distrust towards strangers. This result also complemented the sharp use of ride-sharing services. The use of digital payments, including digital payment gateways (e.g. debit/credit card) and mobile financial services (e.g. bKash, Rocket, Nagad) for ride-sharing services can additionally enhance its uses (Ahmed et al., 2020).

The ride-sharing sector is providing opportunities for employment by saving time for commuters of the most densely populated city in the world. The trend is showing that the drivers of the ride-sharing services belong the most of the young people, who are financially comforted to work in the potential industry (Li, Hong & Zhang, 2016). Many students take it as part-time work to assist pay for their studies and other usual expenditure. It is found that not many years ago association with app-based ride-sharing works brought incredible changes in the earnings of the people who take this sector as informal (Islam et al., 2019). An anticipated 40,000 drivers/riders under the ride-sharing network implies the job creation potential of this sector. From a car/bike owner/driver's perspective, Uber-Pathao has brought about tangible positive benefits (Jahan, 2019). The ride-sharing business ensures significant security and safety of the transportation communities which helps to increase the demand for this sector boosting employment opportunities (Witt, Suzor & Wikström, 2015). The ride-sharing business provides direct jobs to the unemployed people, students, and even who have formal jobs and tends huge employment opportunities in the country. Furthermore, this business removes income inequalities and generates an additional income leading to the alleviation of poverty (Abedin et al., 2020). Moreover, the ride-sharing business also plays an important role in improving the socio-cultural status, values, and lifestyle of the community (Islam et al., 2019). However, the communities consider the development of the ride-sharing service sector as a blessing for the creation of employment informally and are very intense to be involved in this sector. Thus, the

ride-sharing business creates informal employment in Bangladesh by empowering job seekers and passengers economically, socially, and culturally (Hossain, Siddique & Islam, 2015).

2.1 The History of Ride Sharing in Bangladesh

With the launch of Pathao, the most popular local ride-sharing firm, in 2016, and the arrival of Uber in the Bangladesh market in late 2016, Bangladesh saw a significant increase in the ride-sharing area. Aside from Pathao and Uber, a slew of other ride-sharing companies are springing up to meet the growing public demand. Approximately 500,000 commuters used apps to request ride-hailing on vehicles and bikes as of November 2017, commonly known as e-hailing. In January, this number was merely 10,000. With Uber, Pathao, and Amar Ride beginning services in Dhaka in 2016, ride-hailing tech companies swept the Bangladeshi market. Such initiatives have sparked a trend of ordering a taxi or motorcycle using smartphone apps for either solo or shared travel. Surprisingly, Pathao started out as an E-delivery service in 2015. The company was successful in using its fleet of motorcycles, but it wasn't until October 2016, when Uber started in Dhaka in November 2016, that Pathao decided to promote motorcycle ride-sharing services. Despite its popularity, Pathao is not Bangladesh's first motorcycle-based ride-sharing company.

Share-A-Motorcycle, or SAM, is the recipient of this honor, which was established on May 7, 2016. Pathao's superior business model, on the other hand, appears to have made them more successful and popular. Uber appears to have taken notice of Pathao's success because, in the fourth quarter of 2017, Uber created UberMoto, which is modeled after Pathao's motorbike taxi service. In essence, Uber has set the tone for firms like Chalo, Muv, Dhaka Moto, Bahun, Amar Bike, Amar Ride, Taxiwala, Dako, Ezzyr, Goti, and Hellow Ride, all of which have helped to develop a thriving e-hailing market in Bangladesh.

Although the notion of ridesharing is not new, its expansion in emerging economies such as Bangladesh has acquired a lot of traction recently (Kamau et al., 2016). Furthermore, Bangladesh's definition of ridesharing differs greatly from that of many other industrialized countries, such as the United States and the United Kingdom. While in developed countries, it refers to the concept of sharing a ride with two or more passengers to reach the same destination, in Bangladesh, the concept has taken on a new dimension in the form of searching for a ride using smartphone apps and an internet connection by selecting the destinations. Furthermore, Dhaka's infrastructure, road networks, and communication systems fall short of that of comparable developed-country cities (Chowdhury et al., 2016).

3. Methodology

3.1 Research Design

This paper attempts to present a qualitative investigation of the contribution made by the ride-sharing businesses in Bangladesh emphasizing its merits-demerits from the viewpoints of the drivers and the riders. The qualitative method has been used to have replies using questions relating to various aspects of ride sharing business from the participant's point of view (Goedeke et al., 2015). In qualitative research there is hardly any answer to a question like how many respondents are asked to gather information on having a panoptic picture of the ride sharing businesses in Bangladesh based on thematic analyses (Robinson (2014; Fugard & Potts, 2015). Face-to-face interviews were conducted for having a better understanding of the kind of businesses based on the opinions, experiences of participants using the interview schedule (appendix-B). The researcher conducted interviews until reached data saturation was reached (Guest, Bunce & Johnson, 2006). The sample respondents of this study are selected purposefully and based on the convenience of the researcher. Interviews took place in Bengali and were then recorded, transcribed, and translated to English.

3.2 Study Sites

In Dhaka and Chattogram city the local and foreign ride-sharing companies namely Uber, Pathao, Shohoz Rides, Obhai, and PickMe are providing services (Hayder, 2020). This study is conducted in Dhaka City from late 2020 to early 2021. In Bangladesh, Dhaka city is the commercial and financial hub. Moreover, the main office of national and international companies is situated in this city. For this reason, Dhaka city is the dominating job market. Why are job seekers eager to move to Dhaka for getting their employment (Karim, 2020)? On the other hand, this city is one of the most densely populated and congested cities in the world where every day about 3.2 million works hours and every year about 660 million working hours are wasted (Hasan et al., 2019). In this city, many modes of public transportation are seen namely auto-rickshaws, taxis, CNGs, and public buses. These types of transportation exploited the elasticity of demand for transportation by refusing the passengers favors and choices. These transportations most of the time exploited the passengers by refusing to charge by the meters installed in the vehicles, hiking up fares, and refusing to go to places that do not generate a higher fare (Mahmud, Gope & Chowdhury, 2012). These situations demand mass transportation, which considers the efficiency, reliability, and safety of the commuters. To eliminate such exploitation the app-based ride-sharing services introduced in Dhaka city in November 2016 have brought blessings to the commuters with ease of finding transport, doorstep pick-up, and app-based fare estimation (Tusher, Hasnat & Rahman, 2020). For these commuters favored blessings tend to the rapid increase of

ride-sharing businesses in the traffic-congested Dhaka city and day by day gaining popularity. Moreover, data in January 2020 shows that commuters took 7.5 million rides per month in the city, which becomes one of the sources of employment for the people in the country (Ahmed et al., 2020). Considering these issues the researcher selected Dhaka city as the study site for this budding industry.

3.3 Selecting Samples

The selection of subjects is purposeful in qualitative research, participants are chosen who can help to inform the research questions and increase understanding of the phenomenon under study. In the study design process, therefore, one of the most critical tasks is to identify suitable participants. Selection decisions are focused on empirical concerns, theoretical insights, and information that informs the study. In this study, extensive literature reviewing the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country has helped the researcher to identify the participants in the context of the subject matter of this study. As a result, given the qualitative analysis and scope of this study, the researcher interviewed 12 Uber, Pathao, OBHAI, and OBON drivers and 8 riders of these ride-sharing services for approximately 30 minutes each.

3.4 Sampling Technique

Convenience sampling was employed in this research. In both qualitative and quantitative research, the process of convenience sampling is valid. Personal contacts-based convenience sampling was applied. In qualitative research, there are no computations or power analyses that can be performed to determine the minimum number and types of sampling units needed a priori. Sample size adequacy in qualitative study is relative. For certain kinds of homogeneous or essential case sampling, a sample size of 10 might be considered sufficient, too small to achieve full variation of a complex phenomenon or to establish theory, or too large for certain kinds of narrative studies. According to Van Kaam (1959) the sample size 10 to 50 is sufficient to discern its necessary and constituents in a qualitative research. In the existing research, 20 respondents were selected to be interviewed based on personal connections. The researcher interviewed 12 Uber, Pathao, OBHAI, and OBON drivers and 8 riders of these ride-sharing services for approximately 30 minutes each. As a result, given the qualitative analysis and scope of this study, a sample size of 20 was deemed sufficient.

3.5 Interview Questionnaire Development

A semi-structured interview methodology was used in the qualitative part of this research to share views and viewpoints between the investigator and the participants.

The semi-structured questionnaire was designed and developed by considering literature review. For the drivers, one primary question and twelve probing questions and for the riders a separate questionnaire was used consisting one primary question and ten probing questions to perform the field study (Appendix-B). The production of interview questions was considered very critical because the qualitative approach was used to provide real-world perspectives. In the present research the field study has conducted with the in-depth interview with 20 interviews relating to the subject of the study.

3.6 Data Collection Procedure

A total 20 in-depth interviews were carried out at the study site from September 2020 to January 2021. These interviews were conducted to understand the respondents' views on the role of the ride-sharing business in creating informal employment opportunities in Bangladesh and its prospect for the economic development of the country. Before taking interviews from the respondents, permission was taken from the respective interviewees. However, at the month of September 2020, the researcher visited the study site and tried to develop relationship with the drivers and riders of the ride-sharing service. The researcher was able to conduct 5 interviews as a pretest on initial questionnaire which are designed on the basis of research questions and objectives of this study. After returning from the field, few modifications were done by following the comments and opinions of the respondents. After modifying questionnaire, 20 interviews had been conducted until the information saturation stage was reached. The researcher has not used data from the incomplete interview in this study. During the interview, the participants were requested to allow recording their speech by using the mobile recorder. Most of the participants allowed but very few did not. In case of the respondents who did not allow to use the recorder, key points were noted down. For data analysis, the verbatim transcriptions of all recorded interviews were completed to ensure accurate data from the discussions of participants, body language, and others.

3.7 Data Analysis

To analyze the in-depth interviews gathered from the field study using thematic technique. This technique helps in transcribing the collected data, coding, and developing the central theme of the research (Shneidman, 2013). To analyze the data gathered from the field study, first, the interviews were transcribed by using the verbatim mobile records and the notes written down during the interviews. Then, to examine and evaluate the collected data, the content analysis approach was used (Lune & Berg, 2017) to investigate the contribution of ride-sharing in creating employment opportunities in Bangladesh. The data gathered from interviews was consolidated and subjected to open coding and inductive analysis, as recommended

by Merriam (Merriam, 2002). Moreover, secondary data were collected from the published documents and websites for this research.

3.8 Demographic Description

The following table 3.1 shows the demographic characteristics of the respondents.

Demographic Variables	Frequency	Percentage (%)
Gender		
Male	18	90%
Female	2	10%
Education		
No Education	0	0
Primary	0	0
Secondary	5	25%
Higher- Secondary	7	35%
Graduate	8	40%
Age Group		
18-25 Years	4	20%
25-32 Years	13	65%
32- Above Years	3	15%
Occupation		
Employed	2	10%
Unemployed	11	55%
Business	3	15%
Students	4	20%
Marital Status		
Married	11	55%
Unmarried	9	45%
Divorced	0	0
No. of Dependence		
No dependence	3	15%
1-3 dependence	6	30%
3-6 dependence	11	55%
6-9 dependence	0	0

Family Type (Staying)		
Single	17	85%
Family	3	15%
Respondent Types		
Drivers	12	60%
Riders	8	40%

Source: Author

Above table 3.1 represents the demographic characteristics of the respondents of this study. Out of 20 respondents, 18 were males and 2 were females. As far as education is concerned 40% of the respondents have a graduation degree, whereas 35% of the total respondents contain a secondary school certificate and only 25% of them have a secondary school certificate. Out of 20 respondents, 65% have an age limit between 25 to 32 years. 4 (20%) of them are between the age limit of 18 to 25 years, and only 15% of the interviewed respondents are aged more than 32 years old. The majority percent (55%) of the interviewed respondents are unemployed. 20% of them are students and 10% and 15% of the respondents are employed and businessmen. As far as marital status is concerned 55% of the respondents are married and the rest of them are unmarried. As far as dependence is concerned, 55% of the respondents have 3 to 6 dependences. 6 of them have 1 to 3 dependence, and the rest 15% of the respondents do not have any dependence to take care of. 85% of the respondents remain single in Dhaka city and the rest 15% of them live with their families. Finally, 60% of the respondents are drivers, and 40% of their riders in this study.

4. Results and Findings

The in-depth interviews with both the drivers and riders provided insights into several areas that exist for support in creating informal employment in Bangladesh. The main issues to investigate were included perceptions of social exclusion, personal traits, social security, considerable efficiency, reliability, safety, and comfort as the areas where a nexus between ride-sharing and informal employment opportunity creation are formed. The outcome of this study will have an important policy impact on employment opportunity creation and have a contribution to the literature on the studied field.

App-based Secured Infrastructure

The infrastructure with proper information has a huge potential for improving the security conditions and thereby the working conditions for informal sector workers because such infrastructure ensures the safety of the stakeholders (Chambers &

Evans, 2020). The Ride-sharing companies have developed and promoted apps-based infrastructure programs where both the drivers and riders need to register to provide their personal information along with their present and permanent addresses. Such information gives both parties security and safety during of getting services. Moreover, apps have the option to rate the driver and passengers. This rating affects both the rider and driver profiles and, in some cases, affects their ride-sharing options in the future (Ghosh, 2018). Experience has demonstrated that app-based infrastructure works providing services to communities lend themselves well to employment generation through labor-intensive methods. Therefore, the ride-sharing business brings a comprehensive app-based infrastructural development that ensures the safety and security of both drivers and rides which helps to generate employment. This viewpoint of the participants is outlined briefly below:

“Since this is an app-based service and all personal information is recorded on the server so there is no chance to create any unexpected incidents from both sides. Moreover, in this app-based programming service, there is the option of rating both parties, which affects our profiles and affects our ride-sharing opportunities in the future. When the riders are satisfied and rated positively then they encouraged others to avail of this service. That is why; more demand is increased to take more services which create self or informal employment opportunities.”

PO6, Male, Age 29, Unmarried, dependence: 3, Stay: Single, Educational Status: Graduate
 # UR2, Male, Age 31, Married, dependence: 3, Single, Educational Status: HSC
 # RD4, Male, Age 40, Married, dependence: 4, Single, Educational Status: Graduate

Improvement of Social Character

Social character gives raises a position of individual aspiration and social essentiality by assuring that persons want or need to do what they encompass to do, and therefore obtain fulfillment from performing according to social and cultural prospects or expectations (Foster, 2017). Maddah & Sobhani (2014) stated the role of social character issues as the most imperative force distressing the informal economy. They ingrained the direct relation of unemployment and other issues such as poverty, illiteracy, economic corruption, inflation, and low wages with the size of the informal economy of a country. The informal sector is defined by micro-enterprises that necessitate little investments, and enjoy minimal state rules, regulation, and freedom. The organization of one's personal enterprise provides a feasible chance for reducing and overcoming poverty and offering work to others (Sethuraman, 1976). The lack of sufficient job growth in the formal sector particularly in Bangladesh as well as the lack of skills of the large labor force of the country has resulted in the growth of informal employment in the country like ride-

sharing businesses. The participants gave their opinions regarding improvement of social character as below:

“Our country’s per capita national income and education rate is lower than developed countries and inflation and poverty rates are high and labor wages are low. Due to these social characteristics, it is not possible to meet our expected demand. All these social characteristics are driving us towards informal activities. Moreover, lack of skills, requirements of small investments, enjoying the freedom, and minimal State regulation tend us to engage in informal employment like ride-sharing. Notably, incorporation into social characters of our country has positive behavioral changes among the people of the ride-sharing services.”

OB1, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate

RD2, Male, Age 25, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

RD2, Female, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate

Inflation Control

The Price level rising of consumer goods refers to inflation and brings the difference between expenses and incomes of households of the consumers. Simply, it is an indication of a reduction in people and a firm’s purchasing power. Such a situation tends to enter informal employment in order to recompense the extra expenses. To subsist a living and manage the extra expenditure due to inflation people lead to increase their income by engaging in informal employment. In this regard, Maddah & Sobhani (2014) pointed out that inflation is the most important reason for the informal employment emersion. Barro (1996) describes that inflation is a manifestation of financial steadiness circumstances, which by its raise small companies ruined and by exiting the formal market, they will be inclined to carry out in the informal market. Therefore, there is a nexus between ride-sharing businesses and informal employment opportunities created. A number of participants who are engaged in ride-sharing businesses in the Dhaka city stated as below:

“We are engaged with the ride-sharing services as our secondary employment besides our primary employment because of meeting up increased expenses of our households. The hike of the consumer goods prices decreased purchasing power of us and we are unable to meet up our daily family expenses which tend us to enter into the informal employment like ride-sharing.”

UR1, Male, Age 29, Married, dependence: 3, Stay: Single, Educational Status: Graduate

PO1, Male, Age 26, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

RD1, Male, Age 18, Unmarried, dependence: 2, Stay: Single, Educational Status: SSC

Reduction of Unemployment

In developing countries, higher rates of unemployment can carry out as a growing concern in the informal sector. Unemployment and lack of job are identical to being deficient in income and necessary sources to entail a living. In this circumstance, people have elevated inspiration to engage in informal activities (Rahman et al., 2019). Frey and Weck-Hanneman (1984) mentioned that unemployment is among the most important determining factor of the informal economy. Dell'Anno and Solomonl (2008) used the USA economy's data, showed a direct and significant relationship between unemployment and the informal economy, and recognized unemployment as a major factor in the emersion of the USA's informal economy. In developing countries like Bangladesh, ride-sharing services as informal employment are a source of work creation, and engaging in this sector is thought of as a means to fight poverty. According to the Bangladesh Bureau of Statistics (BBS), in Bangladesh, the unemployment rate was at approximately 4.38% in 2015, which has decreased, and now the rate is at around 4.2% in 2020. In 2018, Pathao raised USD 10 million and Shohoz raised USD 15 million from investors. At preset USD 300 million markets, business is estimated in Bangladesh. It is expected from 2018 to 2025 the market value of the ride-sharing business in Bangladesh will grow from around USD61 billion to USD 218 billion and the figure will be USD 285 by 2030 which will generate huge employment for the people of the country (Ahmed et al., 2020). Regarding the informal employment creation, the participants' standpoints are followed:

“We observe that ride-sharing businesses are creating a huge number of informal employment opportunities for the unemployed people of Bangladesh. Many young people who are students informally involved with this sector leads to earning extra income that helps them bear their living and educational expenses. Moreover, the people who have completed their education and seeking jobs are also involved with these ride-sharing activities. During the pandemic, COVID 19 situation many organizations fired their employees and created a huge unemployment situation. Such unemployed people are engaging with this business to lead their lives. About 371,093 motorcycles were registered in Dhaka from 2017, when the ride-sharing services Uber, Pathao, and Shohoz were introduced, till February 2020. The highest number of 104,064 motorcycles was registered in 2018. Such a picture indicates the role of the ride-sharing business in reducing the rate of unemployment in Bangladesh. Consequently, the unemployed peoples are empowered economically owing to be an integral part of the informal ride-sharing sector.”

UR3, Male, Age 39, Married, dependence: 5, Stay: Single, Educational Status: HSC

OB2, Male, Age 32, Married, dependence: 4, Stay: Single, Educational Status: SSC

PO3, Male, Age 37, Married, dependence: 4, Stay: Single, Educational Status: HSC

Avoidance of Economic Corruption

From the economic view, corruption means the use of unethical power for personal profit. Researchers investigated the relationship between corruption and informal employment (Anand, Ashforth & Joshi, 2004). Maddah & Sobhani (2014) showed the expansion of the informal sector due to the existence of corruption. He also showed that weakened laws increase the volume of informal employment. They also investigated the choice between the formal and informal sectors according to the impact of corruption. He also argued that the introduced economic corruption and bribery as key factors in leaning toward informal employment. Thus, economic corruption activities also allow job seekers to engage themselves in informal employment like ride-sharing. The summary of the opinions of several participants is mentioned below:

“We think that there are a lot of unethical ways to get a job in the formal sector. We often learn through various media that a candidate has to pay a large bribe to get a job in some formal institutions of the country. We think it is better not to get involved in such kind of economic corruption but to get involved in informal activities. Such type of mindset of the job seekers tends to engage themselves to ride-sharing businesses.”

PO4, Male, Age 32, Married, dependence: 3, Stay: Single, Educational Status: SSC

RD3, Female, Age 21, Unmarried, dependence: 0, Stay: Single, Educational Status: HSC

Reduction of Income Inequality

It is established that income inequality affects societies and economies, with a rising indication that unwarranted income inequality creates dissatisfaction among the people who have comparatively lower-income (McCall, 2013). There are also concerns that income inequality may increase individual deprivation and reduce social mobility. Moreover, income inequality can be an indication of deficiency in income mobility and an opportunity-an indication of a relentless nuisance for fastidious segments of the society (Jenkins, 2011). Besides, people with the same qualifications work in different organizations and face income inequality, then comparatively low-income people will try to increase their income by quitting their jobs or engaging in other informal employment besides their existing jobs (Balkin, 1989). Widening income inequality has significant implications for the growth of

informal employment (Wang, Cooke & Lin, 2016). Therefore, there is a nexus between the standard of living in accordance with income and the growth of informal employment. Ride-sharing businesses have created enormous opportunities for the employment of the people who expect extra income for meeting up their hiked wants. As a result, the intention of income equality tends people are trying to increase income through informal sectors like ride-sharing. A number of participants who are engaged in ride-sharing activities stated as below:

“Many of us have experienced income inequality by having the same qualifications and spending the same working hours. As a result, living with same class people in the society has created inequality in the standard of living. Therefore, we have taken the opportunity of informal employment like ride-sharing to increase the standard of living through increased income. Thus, the ride-sharing business helps to eliminate income inequality of the same qualified and employed persons in the country.”

PO5, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: HSC

RD5, Male, Age 18, Unmarried, dependence: 0, Stay: Family, Educational Status: HSC

RD6, Male, Age 32, Married, dependence: 3, Stay: Single, Educational Status: Graduates

Women Employment

Informal work is not a term for gender biases (Carmichael & Charles, 2003). It covers the work of both genders. Hoyman (1987) suggests that women's participation is expected to surpass that of men. Women face many challenges in participation in the formal work and such challenges move forward women workers to the informal work. That is why women participate in the informal work for meeting up their necessities rather than choice. In many countries, the number of women is half of the working population who works in the informal sector and contributes to poverty reduction. Evidence shows that women are certainly more exposed to informal employment. Statistics show that more than 90% of women in sub-Saharan African countries, 89% of women in countries from Southern Asia, and almost 75% of women in Latin American countries are working in the informal sector (Bonnet, Vanek & Chen, 2019). Moreover, the new technologies and business models open alternative pathways for the women workforce to engage in informal employment (Chen, 2012). Informal employment particularly in the ride-sharing industry is a prominent part of this revolution and has the prospects to include women engaging in employment. Thus, ride-sharing helps expand employment opportunities for the women of Bangladesh. Critical informants of the study are outlined below:

“Lily Ride and OBON as women ride-sharing services that are currently gaining popularity in Bangladesh. These services come up with something that can ensure convenience for women. According to the information from the media, 90% of women using public transport in Bangladesh say they have encountered some form of harassment. In order to combat such widespread incidents, ‘Lily Ride’ and ‘OBON’ were created to make the commute for women in the country both safe and comfortable. Female-only riding apps are seen as a step toward advancing women’s freedom in Bangladesh. The ride-sharing service now opens up a new avenue for extra income for us. Ride-sharing apps boost women’s income and ease our entry into the transportation industry. It’s not just a vehicle to move around-it’s a symbol of women’s employment advancement in Bangladesh.”

PO6, Male, Age 29, Unmarried, dependence: 3, Stay: Single, Educational Status: Graduates

RD3, Female, Age 21, Unmarried, dependence: 0, Stay: Single, Educational Status: HSC

RD8, Male, Age 24, Unmarried, dependence: 0, Stay: Single, Educational Status: Graduates

RD8, Female, Age 35, Married, dependence: 5, Stay: Single, Educational Status: Graduates

Economic Development

For the last three decades, the development of economy in the developing countries depends on the expansion of employment in the informal sector other than the formal sector (Abdallah, 2017). Because informal employment is increasing significantly and contributing to economic development (Bacchetta, Ernst, and Bustamante, 2009). From an economic development perspective, ride-sharing services can generate new avenues in terms of market share and social benefits. Moreover, ride-sharing companies are providing benefits of new dimensions of service and a new area of earning a profit (Belk, 2014). A ride-sharing service is a budding form of transportation that optimistically contributes to economic development and sustainability (Geisberger et al., 2010; Hansen et al., 2010). The participants’ responses are stated in the following summary form below:

“Most people enter the ride-sharing business not by choice but as a consequence of a lack of opportunities in the formal economy and in the absence of any other means of earning for living. It creates an extra income for the community’s general people, especially those who do not have a particular job. Through involvement in the ride-sharing business, the people of Bangladesh significantly reduce economic inequality. It is estimated that ride-sharing is already a BDT 2200 crore business, comprising 23% of the transportation sector. It is found that a few years ago acquaintance with app-based ride-sharing businesses brought tremendous changes in the income of the people who take this sector as informal and play a vital role for the economic development of the country.”

UR2, Male, Age 31, Married, dependence: 3, Single, Educational Status: HSC
 # OB1, Male, Age 28, Unmarried, dependence: 2, Stay: Single, Educational Status: Graduate
 # OB2, Male, Age 32, Married, dependence: 4, Stay: Single, Educational Status: SSC
 # RD5, Male, Age 18, Unmarried, dependence: 0, Stay: Family, Educational Status: HSC

5. Discussions and Implications

5.1 Discussions

The transportation sector got drastic changes by using modern technology (Amey, 2010). Due to the rapid infrastructural and industrial development, modern technology changes the mode and services of transportation by applying web 2.0 technologies and services, etc. (Sakib & Mia, 2019). This web 2.0 technology advanced vehicles, mobile communication networks, real-time responses, and standard bandwidth of the internet. Ride-sharing is a technology-based transportation service based on-demand mobility in which drivers and commuters are connected via an application software (Fielbaum & Tirachini, 2020). This app-based digital system provides the services through smartphones or tablets. With this digital system, there are options for booking, electronic payment, and ratings of passengers and drivers (Shaheen, Cohen & Zohdy, 2016).

Ride-sharing platforms determine trip fares, which are known in advance and are accepted by passengers and drivers. Once a trip is finished and the fare of the service is processed, then the ride-sharing platform collects a percentage of the total fare and transferred it to the drivers as a commission (Fielbaum & Tirachini, 2020). This dynamic and online-based service brings many benefits to both the drivers and commuters by leveraging time and cost. It is also associated with the benefit of reducing the burden of using excessive personal vehicles and provides relief from traffic congestion. Moreover, it brings a new avenue for employment especially for the part-time employees and the students also. (Agatz et al., 2012). At present, this service has explored the opportunities and benefits of online or internet-based marketing in the country (Kumar, Jafarinaimi & Morshed, 2018).

The ride-sharing business has gained long-term economic importance and appeared as one of the fast-rising service industries in creating employment. It as an instrument of economic and socio-cultural development brings a possibility to empower communities by addressing their interests and benefits (Almeida, 2019). Moreover, it gradually enhances the economic strengths of the commuters in various forms (Ahmed et al., 2020). Thus, the ride-sharing service business extends an opportunity to emerge as an informal economy by providing income, investment, and employment in the country (Karim, 2020). Ride-sharing service also contributes to

unemployed people engaging with employment informally. Such contribution turns out to be the platform for creating job opportunities and entrepreneurship. It figures out several ways for the unemployed people to get engaged with self businesses towards financial independence. It also unveils the horizons for more economically viable activities to be taken place and broaden the scope for all forms of investment opportunities that generate return within a shortage possible of time (Bracha, & Burke, 2016). There is a nexus between ride-sharing services and the improvement of living standards of the commuters is found. The exploration of generating income and revenues by creating informal employment opportunities and providing chances to people to be engaged in this informal employment for improving their standard of living.

Moreover, ride-sharing business as micro-enterprises that require small investments, freedom, and enjoy minimal state regulation represents a viable opportunity for overcoming poverty and providing work to others (Zein, 2018). People mitigate their inflation problem to engage with such businesses and tend to bring economic stability through this informal employment. Job seekers engage themselves in informal employment like ride-sharing businesses because of avoiding economic corruption activities. Ride-sharing businesses have created enormous opportunities for the employment of the people who expect extra income for meeting up their hiked wants (Rahel, 2016). This opportunity also helps to expand employment for the women of Bangladesh. From an economic development perspective, this sector creates more opportunities in terms of market share and social benefits. Moreover, new dimensions of service use and a new area of earning a profit also are benefiting this business.

Nevertheless, the ineffectiveness and unreliability of the transport steering plans are one of the challenges of this service. This challenge can mitigate by re-positioning pick-up or drop-off locations. When the female passengers felt discomfort about sharing a bike ride behind a male driver then and then “OBHAI” launched a new feature “OBON” for the female riders. The “OBON” ride-sharing service appointed female drivers (Nowshin, 2020). In the informal sector, the workers of ride-sharing yet are suffering from a lack of a written employment contract and other employment benefits. A holistic approach needs to be undertaken by the government and stakeholders in formulating rules and regulations to oversee this sector and also should take steps to provide necessary assistance to the people who are involved with this sector.

5.2 Implications

The findings of this study provide an overall knowledge and understanding of how ride-sharing businesses play a role to create informal employment in a country, particularly in Bangladesh. Similarly, it assists in informing the stakeholders how

ride-sharing businesses play a key role in bringing socio-cultural, infrastructural, and economic development by creating informal employment for the people of the country. The findings can be helpful to formulate comprehensive plans and policies to boost the ride-sharing service that may assist in bringing significant employment creation. The insight of the findings approaches the ride-sharing service as a catalyst for commuters' empowerment that may explore a new dimension for enabling their happy livelihood and simultaneously contribute towards making the country economically empowered. The government and non-government organizations can take the initiative to provide formal training, education, and awareness to the commuters. Simultaneously, policies and strategies can be designed and implemented accordingly for enhancing the sector. Furthermore, the technical organizations and investors can be aided by the findings in finalizing their decision to invest, support, and patronize this sector. In addition, this paper might add knowledge to this field of studies by examining how the ride-sharing business contributes to creating employment in the country particularly informally. More specifically, with the typical findings of previous studies, this article indicates that the ride-sharing business creates informal employment due to the influence of various factors and issues. This finding will specify the future research avenues; grow the interest of the scholars in conducting additional research in this area.

6. Conclusions, Limitations, and Future Research Avenues

The ride-sharing industry has witnessed entries and exits of start-up companies within a very short time. Recently ride-sharing is bringing great relief to the inhabitants of the people of Dhaka city and some other districts (Jahan, 2019). Many ride-sharing services are launched with innovative technology to make the mobility of the people more conveniently and flexible and create informal employment opportunities for the people of Bangladesh especially the young people of the country (Islam et al., 2019). It is viewed as a feasible option that can proffer long-term growth, employment, multiplier effect, and macroeconomic stability. Ride-sharing business as an instrument of growing informal employment through secured app-based infrastructure, socio-cultural improvement, inflation control, reduction of unemployment and income inequality, economic corruption avoidance, empowering women, and economic development (Sakib & Mia, 2019). These instruments enable both drivers and riders to enhance their capabilities and engender to engage in ride-sharing business for generating informal employment. Meanwhile, it needs the development of infrastructural facilities such as roads and technologies to advance the ride-sharing industry for the people of Bangladesh to avail more opportunities for employment. This study creates valuable insights for academics, policymakers, and participants who are interested to involve in informal sector employment in Bangladesh.

However, this research is not without its limits. This study relied on the data collected from Dhaka city. More divisional cities covering ride-sharing services can be included in future studies in order to make the findings more vibrant. This study used a non-probability convenience sampling technique further study can be undertaken using the probability sampling technique. Moreover, this research incorporates only a qualitative approach, in the future quantitative or mixed-method approaches may apply to consolidate the viability of the outcome as a whole. Last but not least, future research should initiate to find out the challenges and prospects of women's entrepreneurship development in Bangladesh through ride-sharing services.

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Appendix

A) Respondents List

No.	Profession	Gender	Age Group	Marital Status	No. of dependence	Family (Stay)	Education
1	UR1	Male	29	Married	3	Single	Graduate
2	UR2	Male	31	Married	3	Single	HSC
3	UR3	Male	39	Married	5	Single	HSC
4	PO1	Male	26	Unmarried	2	Single	SSC
5	PO2	Male	28	Married	3	Single	HSC
6	PO3	Male	37	Married	4	Single	HSSC
7	PO4	Male	32	Married	3	Single	SSC
8	PO5	Male	28	Unmarried	2	Single	HSC
9	PO6	Male	29	Unmarried	3	Single	Graduate
10	OB1	Male	28	Unmarried	2	Single	Graduate
11	OB2	Male	32	Married	4	Single	SSC
12	OBN1	Male	35	Married	5	Single	Graduate
13	RD1	Male	18	Unmarried	2	Single	SSC
14	RD2	Male	25	Unmarried	2	Single	SSC
15	RD3	Female	21	Unmarried	0	Family	HSC
16	RD4	Male	40	Married	4	Single	Graduate
17	RD5	Male	18	Unmarried	0	Family	HSC
18	RD6	Male	32	Married	3	Single	Graduate
19	RD7	Female	28	Unmarried	2	Family	Graduate
20	RD8	Male	24	Unmarried	0	Single	Graduate

B) In-depth Interview Questions

The prominent purpose of this study is to investigate the role of the ride-sharing business in creating informal employment opportunities in Bangladesh.

Interview Protocols/ guidelines:

- a) Open-ended questionnaires
- b) Natural set up
- c) Medium of language is English but the respondents are allowed to give answers in Bangla upon his desire.
- d) The interview session may last around 40 to 45 minutes and the entire session is recorded using audio recorder. Note taking using paper pencil is also employed to record the highlighted issues informed by the respondents.

Demographic Variables

1. **Gender:** a) Male b) Female
2. **Education:** a) No Education b) Primary c) Secondary d) Higher- Secondary
e) Graduate
3. **Age:** a) 18-25 Years b) 25-32 Years c) 32- Above Years
4. **Occupation:** a) Employed b) Unemployed d) Business d) Students
5. **Marital Status:** a) Married b) Unmarried c) Divorced
6. **No. of Dependence:** a) No dependence b) 1-3 dependence
c) 3-6 dependence d) 6-9 dependence
7. **Family Type (Staying):** a) Single b) Family
8. **Respondent Types:** a) Drivers b) Riders

Questions for the Drivers**Main Question:**

How can you explain about the role of the ride-sharing business in creating informal employment opportunities in Bangladesh?

Probing Questions:

- i. What do you think regarding minimum quality of the drivers to start ride-sharing business?
- ii. What is your opinion regarding the infrastructural need for ride-sharing business?
- iii. How does ride-sharing business improve the social character?
- iv. Do you think the increasing the price level of consumer goods is one of the main causes to enter you in the ride-sharing business?
- v. How does ride-sharing business reduce the unemployment?
- vi. How does ride-sharing business decrease the economic corruption?
- vii. Does ride-sharing business reduce income inequality? How?
- viii. Do you feel freedom in decision making in your ride-sharing business?
- ix. What is your opinion regarding the employment generation for woman by the ride-sharing service?

- x. Why do you choose such employment to avoid the economic corruption of the formal employment?
- xi. What are the basic rights involved with the ride-sharing business?
- xii. What is your opinion regarding the contribution of ride-sharing service to the economic development?

Questions for the Riders

Main Question:

How can you explain about the role of the ride-sharing business in creating informal employment opportunities in Bangladesh?

Probing Questions:

- i. What is your opinion regarding the ride sharing drivers to avail the riding services?
- ii. Do you think that ride sharing businesses stand with required infrastructural design?
- iii. Do you think that ride sharing business contributes to the social improvement?
- iv. Is it the price hikes of the daily necessities that made you to avail ride sharing services?
- v. Do you think that ride sharing services in the country reduce unemployment problem?
- vi. Can ride sharing services reduce economic corruption?
- vii. Does ride-sharing business reduce income inequality? How is your opinion?
- viii. Do you think that more females should come to join ride sharing services?
- ix. Is it your right to avail ride sharing services and choose any of the ride sharing services of your own will?
- x. Do you think, as an informal sector, ride sharing businesses have the potential to contribute significantly to the economic development of Bangladesh?

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STUDENTS' PERCEPTION ABOUT ONLINE LEARNING IN THE EDUCATION SECTOR DURING COVID-19: A STUDY ON THE DIFFERENT EDUCATIONAL INSTITUTIONS OF BANGLADESH

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Abstract

The COVID-19 has made monumental changes in the field of education as it has already made large interruption in the way the conventional education system to run their classes and doing their lessons not only in Bangladesh but also around the world. To adopt this situation world-wide all the education systems have temporarily shifted from traditional learning to online learning and Bangladesh is also in this platform. This study is emphasized on the online teaching modes adopted by the different educational institutes for their students for the learning process as well as to assess the perceptions of the students regarding this new experience. This study employs quantitative and qualitative approaches to study the perceptions of students on online learning modes and how different modes are followed by different educational institutes during emergency online learning. A comprehensive search of the literature in different sites online was also called upon in considering, and a Google survey and interview were made with many students for this purpose. The result reveals that most of the respondents did not attend any online classes before this pandemic and most of the online classes are conducting using Zoom and Google Classroom/ Meet platform where most of the students are university level. However, students do appreciate the mode of conducting online classes as their experiences are pretty familiar with their perceptions. As Bangladesh is adopting online learning, this study can contribute to developing this online learning platform for an upcoming situation where this learning platform can bring out several positive outcomes.

Keywords: Online learning, students' perception, COVID-19, education system, Bangladesh.

1. Introduction

The new Corona virus has already wreaked devastation around the world, hitting practically every country, and its spread is still on the rise, affecting virtually every industry. However, from late 2019 till today 2022, it has had a significant impacts on world education. A report of World Economic Forum argued that the COVID-19 already prevent over 1.2 billion youngsters from attending school in April 2020. As a result of the epidemic, educational institutes around the world were forced to close,

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and educational methods acquire rapidly with the launching of online learning. Before the Covid-19 pandemic, online learning was primarily viewed as an optional mode of education, but the pandemic time caused it to take the position of being the primary form of learning. As a result, educational institutions are now using online platforms to assist students in their studying (Mulyanti et al., 2020). Furthermore, several distance learning platforms make their pandemic resources available for free (Li and Lalani, 2020). Nonetheless, the most frequently encountered hurdles in online education are a lack of appropriate resources and suitable teacher training, limited access to technology, faculty preparation, late adoption of learners' online learning, and a lack of technical facilities in remote areas (Dubey and Pandey, 2020).

Educational sector of Bangladesh like other countries over the world, is severely affected by COVID-19. COVID-19 led in academic closure in Bangladesh in March 2020. (Moralista & Oducado, 2020). Academic activities have been severely disrupted, and students are disgruntled as they consider their academic future in the aftermath of the COVID-19 Lockdown. The online class has brought a lot of attention to Bangladesh's education system, as well as other countries'. Furthermore, virtual teaching-learning was a novel experience at practically all Bangladeshi universities; unexpected closures of face-to-face classes allowed professors and students the shortest time to adjust to the new virtual class and classroom alternative. Facebook, Zoom, Google Classroom, Google Meet, and other platforms offer ways for academic institutions to engage with students (Fami, 2020). However, problems about e-learning readiness, design, and efficacy remain unanswered, particularly for a developing country like Bangladesh. Technical constraints such as device appropriateness and bandwidth availability represent a significant difficulty. For a country like ours, online learning is difficult; it is not just only for the students, but also for the teachers. Some schools used "synchronous" learning, which takes place at a specified time and through a certain medium. In Bangladesh, the majority of students confront a variety of challenges while taking online classes. On the other side, some teachers are finding it difficult to teach online because they have never conducted an online class or received any training in this area. The study attempts to analyse the reality of higher education in Bangladesh during the COVID-19 pandemic. Besides, government measures (stay-at-home and/or physical distance), university-level students' perspectives of online learning adoption, use, and acceptability were investigated here by the researchers. To reveal this fact, a web-based questionnaire was formed to collect data through the respondents (student) and the author's personal observation via online Zoom classes/ Zoom meeting conversation of different university students of Bangladesh. After finding out several issues, the researchers think that it will be helpful for the government and institutional authorities to take some initiatives to make online class effective. The study findings may be useful tools for the stakeholders in our educational systems in developing a plan for universities to maintain their e-learning programs throughout

the pandemic and any further crisis. Furthermore, this study discusses the challenges, benefits, and future of online education in Bangladesh. Students may experience unique challenges relating to online class preparedness, participation, and activities after transferring to online classrooms during the epidemic.

2. Research Objectives

The present study attempts to investigate the scenario of higher education in Bangladesh during the COVID-19 pandemic. Along with the main objective, the researchers have fixed the following specific objectives to make the study a goal oriented. The objectives are-

- to have a look on the state of online learning during COVID-19 in Bangladesh;
- to know about the modes/ tools used in conducting online classes during COVID-19; and
- to know about the students' preparedness, adoption process and their perceptions about the online classes.

3. Research questions:

To conduct the study following research questions are considered:

- RQ1: What are the real scenario and challenges of online learning in Bangladesh?
- RQ2: How (the modes/ tool and techniques) online classes are conducting over online?
- RQ3: What's the students' perception regarding online learning?

4. Literature Review

Students can learn via the internet using electronic devices such as laptops, mobile phones, and tablet PCs rather than attending academic institutions in online education. The spread of the Covid-19 epidemic has led in a massive mortality toll around the world, as well as widespread alarm and uncertainty. Countries all over the world are working to close the gap and reduce the number of students who have died as a result of the current pandemic. However, as indicated by the discovery of various difficulties in the context of online teaching and learning, which caused considerable concern about the sensitive subject of online education during COVID-19, the outcomes of online education are not always beneficial to the learners' community. For starters, students who participate in online or distance learning are geographically separated from their lecturers and require a delivery method (Wang, Shan- non, & Ross, 2013; Wilde & Hsu, 2019). Second, ICT facilitates student-teacher interaction, and the design of new education environments (e.g., the physical location where learning occurs) can have a substantial impact on learning outcomes (Bower, 2019;

Wang et al., 2013). Third, prospering online learning is the outcome of careful methodological design and planning, which has been studied for decades (Hodges et al., 2020). With today's technology breakthroughs, we may create online content in a variety of ways. To make learning successful and productive, it is critical to consider learners' preferences and views when building online courses. The learner's preference is linked to his or her readiness or willingness to participate in collaborative learning, as well as the elements that influence readiness for online learning. Any endeavour to increase the effectiveness of online teaching and learning must consider the users' perceptions as the students have both optimistic and pessimistic sensitivity towards online classes. Several studies have found that the teachers' interaction with pupil has a significant impact on students' cognition of online learning. The ability of course teacher play vital role to increase or decrease the critical thinking skills and information processing (Duffy et al., 1998; Picciano, 2002; Hay et al., 2004), and the pace of interactivity in the online setting (Arbaugh et al., 2000).

Several research were conducted in order to rationalize the concept of online learning and the learners' readiness. Former studies identified that self-reliant learning (Guglielmino (1977); motivation for learning (Ryan and Deci, 2000; Fairchild et al., 2005), learner control (Shyu and Brown, 1992; Hung et al., 2010), online communication self-efficacy (Roper et. al., 2010) act as the factors that influenced the readiness of learner for online learning. A well-designed course materials, well-prepared teacher, innovative and modern technologies and proper response and clear instructions are all indispensable constituent of a good online class (Sun and Chen, 2016; Gilbert, 2015). Students' mental conditions, frustration over the long period of study gap make them willing to enrol in online programs (Shama and Ikbai, 2020). They do, however, lack the necessary technical skills, such as access to inexpensive information for online lectures. According to Biswas et al. (2020), mobile learning is a useful educational tool in all developing nations, however it is not employed correctly in Bangladesh. University students in Bangladesh, on the other hand, are eager to learn online. In addition, they do research using a variety of network protocols including social media. Students believe that filling up the study gap during the COVID-19 epidemic is beneficial. According to Hajri et al. (2017), the accessibility of mobile phones among the learners is the essential reason for them paring their attraction to online learning in order to complete their ongoing education.

To expedite learning, so many tools are used such as WhatsApp which can message or share documents, information, and presentations, whereas YouTube for self-learning through viewing others' comments, Zoom, Skype, and Google Meet as video conferencing and/ or taking classes and examinations. Students are increasingly confident in their ability to learn, access, exchange, and generate

meaningful information and gain understanding of a subject utilizing technology. In Bangladesh, a significant majority of pupils reside in rural areas. Some of them reside in a remote rural region where these necessities are difficult to get by (The Independent BD, 2020a). Students are also compelled to use a variety of online learning tools that require a fast internet connection. However, in rural locations, obtaining a high-speed network connection to complete online coursework is nearly impossible. These students complete their courses online due to a lack of suitable instructions, which may jeopardize their future education or employment opportunities (Zaman, 2020). In rural locations, most students must purchase data packs in order to participate in online classes. However, due to network issues in rural locations and the expensive cost of data packs, the ratio of pupils has shifted. This problem was explored in greater depth in the national budget for 2020-2021 and also for 2021-2022. The findings suggest that if a country wishes to go toward online education, it must first improve its internet infrastructure. Along with the issues outlined above, the lack of a traditional style of direct interactions in classrooms is a key worry while conducting online classes.

A large number of earlier research have been noted in the literature, which give the basic theoretical account for knowing students' perceptual experience of online teaching method and also identified potency challenges for online learning's success. However, few studies have attempted to embrace students' perceptions and preferences in the context of Bangladesh. Before the Covid-19 epidemic, just a few distance learning programs were adopting online means of education. Only a few studies have been performed, as far as we know, to reveal the general perception of students from various university levels in Bangladesh, despite the fact that higher education in Bangladesh plays a vital part in the growth and outcome of education systems in Bangladesh. We attempted to fill the vacuum and present the scenario of online learning in this research, focusing on undergraduate and graduate students. The goal of this study was to discover the obstacles and opportunities faced by countries that are not as technologically advanced as those that are. Covid-19 had numerous effects on our daily life, but the effects on education, particularly on students, are substantial obstacles to overcome. Policymakers can use a variety of measures to adapt to this circumstance right now and in the near future.

5. Research Methodology

Using both primary and secondary data, the study primarily focused on descriptive methods with some quantitative analysis. According to Mugenda & Mugenda (2003), descriptive survey design aids researchers in gathering, summarizing, presenting, and interpreting data in order to clarify. To collect primary data the researcher developed a web-based structured questionnaire using Google forms and render the survey on the respondents (students). Besides, the author's

personal observation via online Zoom classes/ Zoom meeting conversation of different university students of Bangladesh also taking into consideration to do the study. For secondary data, the researchers review many publications from different internet-based database linked to the impacts of online learning and students' perceptions about it.

The authors adopt Cochran (1963) suggestion to determine sample size- at 7% precision level the sample should be at least 200; and the researchers here considered 220 samples for the study. Collected data were organized and analyzed using MS-Excel and IBM SPSS-25 software. Descriptive statistics were carried out to understand the distribution of study participants. The statements were prepared based on an extensive review of literature and discussion with experts to minimize researcher bias. To identify and summarize the perceptions of the students', statements were rated on a five-point continuum scale (5= strongly agree; 1= strongly disagree). Frequency and percentage were calculated for most of the questions to summarize the data to assess online classes' opinions and perceptions related to study due to the lockdown.

6. Education in Bangladesh during COVID-19

Online education has been newly added at the country's higher education levels. There are about 46 public and 105 private universities is rendering their education service in Bangladesh to educate students in higher level. Furthermore, about 1500 colleges affiliated with National University of Bangladesh which also offer a diverse range of higher education courses and programs. In these unprecedented days, online teaching-learning is the only solution to address global academic difficulties caused by the Corona virus epidemic. Individuals with psycho-social difficulties, mental health issues, impediments to individual growth and development, unequal access to educational materials, and the economic impact on family income are all barriers that must be overcome in Bangladesh using both short and long-term measures. In the aftermath during COVID-19 online learning has opened a new window in the education sector of Bangladesh along with other countries of the world, and it has already considered as the backup plan to offset longer period of educational losses. Before COVID-19 outbreak in Bangladesh, online education was unknown, but it is now widely employed to close the educational gap. The Government of Bangladesh has closed all the education institutions from March 17, 2020, after confirming the first COVID-19 case on March 8, 2020, to limit the virus's rapid spread, according to The Business Standard June 2020. (Islam et al., 2020). Following the closure of all educational institutions, the ministry of education directed all universities to implement online education. In Bangladesh, the use of web-based resources is increasing at an increasing rate. Most academic institutions in Bangladesh have chosen to create online courses through academic portals (Chowdhury, 2020b). Soon

after, the Bangladeshi government instructed instructors to conduct classes for primary school children via television. In the wake of the Lockdown, private schools have hastened to embrace web-based learning methodologies, offering lectures delivered via online media platforms such as Zoom, Google Classroom, Google Meet, WhatsApp, Facebook, and YouTube (Bhuiyan, 2020; Chen et al., 2020). Later, the University Grants Commission approved universities' use of online media such as Zoom, Google Meet, and others to complete their semesters. BdREN supports 147 of Bangladesh's 153 public and private institutions in their efforts to teach online (Rahman et al., 2020).

Bangladesh lacks technological resources, has a high cost, has inconsistent internet connections, has a family financial problems, and pupils have a psychological load. Because of the government's lack of technical and methodological support, most of the students were initially opposed the initiation of taking online classes (Ramij and Sultana, 2020). There is a high possibility of session jams at the universities. Over a longer period of time Bangladesh's education system is going through an uncertain situation, the Education ministry, the Parents of the students, and the stakeholders involved with the education systems are not sure what to decide, how to implement, and how to respond to this pandemic situation. Looking back to April 30, 2020, the Government asked the public and private universities to continue their curriculum through online classes and start their academic activities online. Finally, UGC the guardian of the higher education institutions announced that both public and private universities would be able to take online tests in order to reduce session length and the education gap. Besides, the UGC offers low-interest loans to students who cannot afford digital equipment to run their education and online learning smoothly. Public universities employ a variety of technologies to deliver online classes, but Zoom and Google Meet are the most popular. Many universities now offer their practical and lab sessions online as well. Although it has been difficult for students who reside in rural locations to take online classes, it has also provided them with benefits. According to the UGC, at the start of online learning, 63 universities in Bangladesh, including seven public institutions and 56 private institutions, offered online classes with 60-70 percent student attendance (Sujan, 2020). While ignoring all of the drawbacks of online education, these classes assisted students in filling in the gaps in their studies (Abdullah, 2020). According to a recent poll, while 40% of students take online classes, over 50% of students are unable to do so due to a lack of device availability. However, the majority of them (70%) are from private universities. Students often believe that the practicality and efficacy of online courses are questionable (Islam et al., 2020).

In comparison, according to 2020, around 12.70 percent of impoverished families do not own a mobile phone, despite the fact that students require at least a Smartphone and a strong internet connection to participate in online education (Tariq

and Fami, 2020). Students from private universities completed their semesters faster than students at public universities by giving exams on time (The Independent BD, 2020). Some institutions are now providing free internet packets to students who attend Zoom or Google Meet. However, in rural regions, internet services are so bad that low-income families do not have enough data to use it adequately (Daily Star, 2020). After publishing the HSC result, UGC stated that Private universities could admit their new students using online if they want to to run their education program regular basis. Considering the situation UGC instructed all the universities to take online exams and/ or in campus exam arrangement to clear the gradation and post graduation final examination. So, now public universities are preparing themselves to take examinations as their own way whether it is online or on-campus exams with maintaining social distance.

6. Impacts of COVID-19 on Educational Institution

During the Covid-19 period, the world of third-tier pupils has been blighted by educational hurdles. Because of the catastrophic spread of Corona virus, the government declared the closure of all academic institutions, and coaching centres in Bangladesh as numerous suspicious cases began to emerge. Since March 17, 2020, all educational institutions in Bangladesh have been shuttered (Barua, 2020). Due to the statement, the library and residential halls were immediately shuttered. Students living in university dorms were compelled to leave campus and return home on short notice, and as a result, they were unable to bring all of their belongings with them. As a result, kids from elementary school to university are obliged to sit at home rather than attend lessons in order to preserve social distance (Dutta & Smita, 2020). During the Lockdown, university students lost their jobs as a result of the closure of stores and restaurants, and many suffered greatly as a result. Due to Coronavirus many students' parents become unemployed. Students at certain private universities are also required to pay semester fees. Students are worried about making ends meet during Covid-19 (Emon et al., 2020). Engineering and medical students also face significant challenges. They are unable to participate in any workshops or practice classes, which will have a detrimental impact on their careers (Islam et al., 2020). To support students' distance learning alternatives ways of education must be developed from the primary to higher education levels of learning. Due to poor economic condition the students are supposed to drop out which will impact on early marriage, child labour and so on. The mental health of pupils has been adversely impacted by this pandemic, and the development process has been hampered. In their lives, they are confronted with a variety of psychological issues that require careful attention.

The global economic recession affects all working people in South Asian countries, but the worst suffer are the lower middle and lower social classes in Bangladesh. The pandemic has also disturbed the lives of instructors. Long-term

absences and disengagement from teaching, as well as ongoing professional development, will have an impact on teaching quality and motivation. Non-formal learning centres, vocational, and technical training facilities, and other non-formal types of education and skill training have all been closed as a result of the pandemic. Some Bangladeshi students have squandered their time on Facebook, television, and web series rather than focusing on their school work. Most of the time, kids are engrossed in pointless talk in several Facebook and WhatsApp groups, jeopardizing their future (Barua, 2020).

As a result, students from socioeconomic backwardness are more likely to drop out of school since their parents cannot afford to continue paying the tuition. Students at the tertiary level, are likely to lose interest to continue their studies. This tertiary student are mostly the youngsters who are not confined for an extended period of time. As a result, these kids are becoming increasingly reliant on the internet and social media platforms. These populations' mental health is severely harmed as they face a challenging moment in their lives. An academic session jam has occurred due to the indefinite shutdown of educational institutions (Hossain, 2020). Especially the final year students who thought to become graduates at the end of 2020 have missed their opportunity to catch many job circulars. Still, some private universities compelled their students to finish their final year semester exam and made them graduate. This kind of short time exam was not well evaluated. Ultimately, they became graduates, but quality education was not ensured during this process. In the absence of education and skills training to support access to traditional job markets, economic impacts, especially among post-secondary students, may increase the risk of youth unemployment (ILO, 2020). Massive job losses in recent times and increasing working pressure have a particularly painful effect on young people worldwide. Youth people are already at risk in the workforce before the crises. Recent situations only pinpointed that losses or disruptions in the academic year will affect disadvantaged youth from poor socioeconomic families, mainly due to the increased cost of education opportunities. It can increase anti-social activity and social unrest among the youth. This is a particular risk in Bangladesh due to covid-19 to youth and social media (Mopme, 2020).

7. Results and Discussion:

The findings from the present study are presented below.

Type of educational institute, gender, educational field, current study level, and location of residence were among the demographic characteristics. There were 160 male respondents (72.70 percent) compared to 60 female respondents (27.30 percent). The bulk of the respondents (107, or 48.60%) came from a rural background, while 72 (32.7%) came from metropolitan areas, and only 41 (18.7%) came from semi-urban areas. Moreover half of the responses (57.3%) came from

different private institutions, while 24.8 percent came from public universities, and the rest came from national universities (11.6 percent) and other educational/affiliated education institutes (6.3 percent). In this survey, the respondents' response in the question of in which year they are in now, 11.3% answered that they are in 1st year, 13.9% were in 2nd year, and 16.9% were in 3rd year at their education field. In comparison, most of the students were from the final year and master level where 39% from the final year and 19.9% from the master level. From the survey we have come to know that most of the students are from business studies field (56.1%) where 19.1% are from Science & Engineering, 16.5% are from Arts & Social Science and rest of the students (8.3%) are from other different educational backgrounds.

Table 1. Respondents' demographic information

<i>Demographic variables</i>		<i>Percentage (N =220)</i>
Type of Education Institute	Private University	57.3
	Public University	24.8
	National University	11.6
	Other	6.3
Education Field	Science& Engineering	19.1
	Business Studies	56.1
	Arts & Social Science	16.5
	Other	8.3
Gender	Male	72.7
	Female	27.3
Current Study Level	1st year	11.3
	2 nd Year	13.9
	3 rd Year	16.9
	Final Year	39
	Master	19.9
Place of Residence	Urban	48.6
	Rural	32.7
	Semi-urban	18.7

Source: Field Survey

Table -2. Basic Information Regarding Online Class

Questions	Response	Percentage (N =220)
Did you attend any online classes before COVID-19?	Yes	29.6
	No	70.4
Did your institute start conducting online classes from the very beginning of the Government Declaration to do online classes?	Yes	63
	No	37

Source: Field Survey

The table indicates that only 155 (70.45%) of the respondents had not participated any online classes before, and 65 (29.6%) had participated there. It has been mentioned that everybody who has taken online classes has received various types of instruction and other teaching resources. Furthermore, 63 percent of respondents claimed that online lessons have already begun at the institutions where they have registered, while 37 percent claimed that their university has yet to begin online lessons as a result of the Bangladesh government's proclamation.

Table-3. The technical requirements, class duration and frequency, and other issues

Questions	Response	Percentage (N =220)
Technical Requirements for Online Classes:		
Which device do you prefer for an online class?	Desktop	7.6
	Laptop	14.3
	Smartphone	34.4
	Both Desktop & Smartphone	43.7
	Other	0
Which source do you use for your internet connection?	LAN	12.5
	Mobile Data Pack	26
	Wi-Fi	61.5
Structure of online classes.		
Online Classes Format.	Live Classes	100
	Recorded Classes uploaded on the online platform.	
	Sending reading materials	
Modes of Online classes:	Google Classroom	16.2
	Zoom/Google Meet/Skype	55.9
	Individual E-Learning Management	0
	YouTube Videos/Facebook streaming	7.3
	Zoom, Facebook Live, and YouTube videos.	6.3
	Zoom/ Google classroom	14.3

Nature of Course Material	Reading material is well designed	22.1
	Video content is also provided with reading materials.	32.5
	Classes and Video Content is enough.	22.1
	PPT slides	23.4
Equipment of online classes	Lecture only	22.1
	PPT Slides	27.3
	PPT Slides & Whiteboard	13
	PDF books & others	37.7
Frequency and duration of online classes		
How often do you want to attend online classes?	As per the schedule	72.7
	Weekly once	14.3
	Weekly Twice	9.1
	Not interested to attend	3.9
How much time do you want for a single class for online classes?	30-40 min	22.1
	41-50 min	15.6
	51-60 min	24.7
	More than 1 hour	37.7
How many classes do you like to attend in a day for online classes?	1	3.9
	2	33.8
	Not more than two	40.3
	Do not want daily	22.1
How do you ask any queries?	Live chat	22.1
	Live chat & e-mail	9.1
	Raising hand at the class.	37.7
	Message/Post after/during classes at online classes modes	31.2
How many students an online class usually consist of?	20-30	49.4
	31-50	42.9
	51-70	3.9
	71-100+	3.9

Plans and criteria for evaluation.		
Do you attend an online exam?	Yes	54.8
	No	45.2
Nature of Online Exam	Subjective	24.7
	Objective	1.3
	Both	67.5
	Have not Attended	6.5

Source: Field Survey

In table-3 some other related issues are presented considering tools and techniques, class duration, frequency of classes, and all other arrangements are presented. The respondents argued in favor of technical support they use-smartphones (34.4 percent), laptop (14.3 percent), desktop (7.6 percent), and both desktop and smartphone (43.70 percent) were the devices preferred by respondents for attending online classes. This clearly indicates that any organization developing an application for online learning must ensure that the platform is compatible with smartphones. Mobile data packs were the source of internet for 26% of respondents, with the majority of respondents saying they normally use Wi-Fi (61.5%) and the rest saying they generally use desktops with LAN as the source of internet connection. Whenever a simple question was asked about the format of online classes 100% give their answer that they usually did Live classes at different platforms. Majority of the respondents (55.9%) said that Zoom/ Google Meet/ Skype was the best way to communicate class updates. Rest of the respondents prefer Google Classroom (16.2%), YouTube Videos/ Facebook streaming (7.3%), Zoom, Facebook Live, and YouTube videos (6.3%), Zoom/ Google classroom (14.3%).

In the online platform the nature of the course materials were generally is good enough where Reading material was well designed(22.1%) said so, whereas majority said that Video content was also provided with reading materials (32.5%), from the rest of the respondents were saying that Classes and Video Content was enough (22.1%) and the rest said the course contents was PPT slides (23.4%).Whenever the instructor were conducting online classes they usually used Lecture only (22.1%), whereas PPT Slides (27.3%), PPT Slides & Whiteboard (13%) and rest of the respondents said it was PDF books & others(37.7%). As online classes were conducted to minimize the education gap the frequency about the conducting of online classes was conducted as per the schedule (72.7%), Weekly once (14.3%), Weekly twice (9.1%) and most interestingly some of the respondents were saying that they would not be interested to do online classes (3.9%). Around 58% of the learners wanted online classes for twice in a week with 33.3% respondents preferring 45 min duration for each class. Where majority said that not more than two class (40.3%), and somebody didn't want daily online classes (22.1%). Surprisingly,

54.8% of the respondents attended at online exam and majority of them belonged to private universities and different educational institutes, where rest of the 45.2% did not take part in online examination. Moreover that 24.7% of total respondents gave their opinion that they would like to give subjective (24.7%) and only (1.3%) objective examination. Whereas (27.5%) were ready to give their online examination in the form of subjective & objective both. Rest of the (47.5%) did not take part in examination.

As stated in Table 4, the frequency and percentage were determined for each of the fourteen questions graded on a five-point Likert-scale. There were few differences in graduate and postgraduate students' attitudes toward online learning, according to the study. It's also obvious that about 60% of respondents feel that when it comes to communicating with the instructor, online programs are less effective than face-to-face classes.

Table 4. Descriptive statistics

Questions relating to students perception regarding online classes and learning	N	Mean	Std. Dev.	Variance
I prefer my online courses as they are very structured with set due date similar to face-to-face courses.	220	3.1727	1.09260	1.194
Online classes help me comprehend the course materials compared to Classroom learning.	220	3.2045	1.15825	1.342
The online environment makes it easier for me to communicate with my instructor than the classroom environment.	220	2.9364	1.31918	1.740
The nature of online classes' content should be easy to understand.	220	3.1818	1.21017	1.465
I am more comfortable responding to questions by e-mail than orally.	220	2.9318	1.17814	1.388
The online class has enabled me to gather knowledge of new tools.	220	3.4591	1.14004	1.300
I spend more time on my homework in comparison with regular classroom learning.	220	3.0227	1.13654	1.292
The instructor understands the online environment and makes it easy to learn whereas continuum.	220	3.4182	.90035	.811
I feel a quiz of 5–10 min during each class is necessary to achieve better.	220	3.2773	1.04704	1.096
I have available Wi-Fi/LAN/data pack to enjoy the internet facility.	220	3.4227	1.26000	1.588

I can access the Internet without interruption.	220	2.7682	1.05375	1.110
Low-quality audio/video/bandwidth interrupts online classes.	220	3.7636	1.13819	1.295
The financial issue does not matter during online classes.	220	2.8227	1.18222	1.398
Online learning provides slides, video, discussion forum, and post-test.	220	3.7864	.91402	.835
Valid N (list wise)	220			

Source: Field Survey

The descriptive statistics illustrate that all the average values are higher than 3.0 (highest point is 5.0), where the standard deviation is ± 1.16 . Besides, the table also reveals that all variables have Cronbach's alpha values ranging from .710 to 0.70, which is the least permissible level of coefficient alpha (Pallant, 2007). Validity can be examined using expert opinion and informed judgment, according to Kothari (2004) which represent in the following table:

Variables	Mean	SD	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Students' Perception	3.221	1.162	.710	.719

8. Conclusion

The COVID-19 epidemic stunned the world, affecting people from all walks of life. In a matter of weeks, most educational institutions around the world were forced to close, and face-to-face education was replaced by online education. This unexpected change put a lot of strain on everyone engaged in the educational process, but it also gave instructors and students a chance to obtain hands-on experience with online learning. Furthermore, the pandemic has demonstrated the importance of being well-prepared in order to preserve high-quality education in the face of upheavals and disasters. As a result, as Bozkurt (2020) points out, the question should be what we will do in the future to avoid repeating our mistakes rather than what we did during the COVID-19 outbreak. The current study intends to aid in this preparedness by analysing the most positive and unfavourable aspects of online education during the pandemic's first wave from the perspective of students.

9. Recommendations

As we are still going through a difficult time but the most warning thing is that we will have to survive after the ending of this breakout. So, for the future practice and the well-being of our education system academic administrations should do the followings:

- a) To make online learning effective, investment is needed for infrastructural development so that we can continue online learning in further crisis moment.
- b) As most of the students or even teachers are using this platform for very first time, training should be provided to them to make online learning fruitful.
- c) As the related parties are facing problems in case of getting smooth internet/Wi-Fi facilities; the education institutions or government should ensure the uninterrupted internet service with minimum cost.
- d) In case of online exams, the questions should be short or quiz type because most of the students are not well equipped and their typing speed is not good enough. Moreover, hand written exam option for students should be accepted for a short period.
- e) Introduce educators to unified knowledge frameworks that allow technology, pedagogy, and content to be integrated. To make it success a support communities should create to help students cope psychologically with the new learning systems
- f) The education institutes should create lines of contact between students and instructors, as well as between students and students. As a result of this network, the students' will be connected in a network and their confidence will grow in online learning.

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