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## Stamford Journal of Business Studies

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## **DRIVERS OF CUSTOMER LOYALTY IN SUPERSTORE ENVIRONMENT:**

**Mustari Alam\***

### **Abstract**

*The aim of this paper is to analyze the effects on customer loyalty of product quality, service quality, customer satisfaction and brand image, and the structural relationship between these factors in Bangladesh superstore trade. The study has three objectives: first, to identify variables that constitute customer loyalty; and, second, to carry out an empirical analysis of the relative effects on customer loyalty of four determinants and the causal relationships between them; and, third, to examine the strategic implications for superstore shoppers attempting to raise the level of customer loyalty. Data were collected through structured questionnaire gleaned from the study of Clottey, Collier & Stodnick (2008) and Koo (2003) and were examined using SPSS 22 software. Statistical results certify that product quality, service quality, customer satisfaction and brand image drive customer loyalty as assessed by a customer's eagerness to commend the retailer's products to other people. The result of the study indicated that although product quality and service quality have positive significant influence on customer loyalty, customer satisfaction has the highest impact, besides brand image also plays an important role on creating customer loyalty.*

**Key Words:** *Product quality, service quality, customer satisfaction, brand image, customer loyalty, superstore*

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### **Introduction**

Retailing is the interface between the producer and the individual consumer buying for personal consumption (Mohan, Mohanty & Korah, 2005). But retailers generally have little knowledge of the antecedents of store satisfaction and store loyalty (Cronin, Brady & Hult, 2000). Several authors examine the link between customer loyalty and long-term financial performance of a firm (Reichheld, 2001), however, there has not been much agreement over the drivers or determinants of customer loyalty. Although most marketing research on measuring loyalty of the consumers has focused on frequently purchased goods (brand loyalty), the loyalty concept is also important for services (service loyalty) and retail establishment (store loyalty) (Majumdar, 2005).

In Bangladesh retailing sectors consist of four types of retail shop namely roadside shops, municipal corporation markets, convenience stores and superstores; amongst those superstores are the most recent additions to the retail sector in Bangladesh and with the

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success of the pioneer stores, this type of store has already attracted the interest of investors (market-insight-supermarket-industry-Bangladesh, 2016). According to Gudgeon (2017), a superstore potentially has a grocery section of varying size, but it also has many other non-food areas. Currently there are 121 superstores in the country (market-insight-supermarket-industry-Bangladesh, 2016). This report justifies those stores as superstores because those sell not only grocery items but also non-food items such as health and beauty care, household cleaning, pet food etc. However, the site found the prominent industry is largely dominated by three major players – Shwapno (59 Outlets), Agora (13 Outlets) and Meena Bazar (18 Outlets).

Due to tremendous growth of superstores sector in Dhaka city, it is vital for retailers to understand the inner voice of customer to make them loyal toward a brand by increasing the level of satisfaction through quality. All the superstores have not same market share. Some retailers are very successful than their competitors in attracting consumers. The fissure in success in various stores enthused the researcher to do this research on this site. Previous research found product quality, service quality, and brand image are only three drivers of customer loyalty in a retail setting (Clotney, Collier, Stodnick, 2008). Besides Sivadas & Prewitt (2000) proved customer satisfaction solely has no direct effect on store loyalty. Actually service quality has been found to be an important input to customer satisfaction so it is necessary to show the effects of customer satisfaction. The present study attempts to reduce this gap by adding customer satisfaction with other three determinants the product quality, service quality, and brand image associating retailer's customers who are eager to advocate the retailer's products to others. The researchers hope this research will answer the following question regarding customer satisfaction and loyalty.

1. What are main factors determining the customer loyalty?
2. Is there any relationship among product quality, service quality, customer satisfaction, brand image and customer loyalty?
3. What are the roles of the four determinants in producing superstore customer loyalty?

These findings are based on a survey of 120 customers of various superstores at Dhaka city. The study was briefly reviewed the literature, establishing hypotheses, documenting the data set characteristics by factorizing variables and defining the regression. The report was terminated by discussing the statistical results assisting marketers to develop future sales, the value of a loyal customer and customer loyalty.

## **Objectives**

In turn with the issues identified above, the main purpose of the study is to inspect the customer loyalty of retail supermarkets in Dhaka city. In order to materialize this broad objective, the following sub objectives have been considered.

1. To find out the variables determining customer loyalty.

2. To identify the impacts of product quality, service quality, customer satisfaction and brand image on customer loyalty in supermarkets.

### **Literature Review and Hypothesis Development**

The product quality can be a good starting point for providing customer satisfaction and generating customer loyalty. Johnson and Ettl (2001) described that product quality as the result of performance, which, in turn can be labeled as the degree of customization and freedom from defects or how reliably the product met customer requirements. The product quality dimension included product packaging, product design, product features, warranties, etc. (Muhmin, 2002). High product quality could gain greater product acceptance from customers as well as lead to satisfaction of retailers and wholesalers (Schellhase et al., 2000). It had a direct impact on performance, and was closely linked to customer satisfaction, customer loyalty, and repurchase intentions (Eskildsen et al., 2004). Additionally, several studies provided strong empirical support about product quality was being an antecedent, with a positive relationship to overall customer satisfaction. These suggested that maintaining good product quality will provide satisfaction to customers and further generate customer loyalty (Chumpitaz and Papatoidamis, 2004).

The service quality of a service provider based on disconfirmation assessments of reliability, assurance, tangibles, empathy, and responsiveness (Parasuramen et al, 1988). Service quality corresponds to the expressive performance of a service, that is, how the service is performed (Clotey, Collier & Stodnick, 2008).

Caruana (2002) define customer satisfaction as “a post purchase, global affective summary response, which may be of different intensities, occurring when customers are questioned and undertaken relative to the retail (banking) services offered by competitors(p. 816)”. Cronin et. al (2000), however, display different view in the context of multiple service industries. They argue that satisfaction with a service provider is perceived as being both an evaluative and emotion-based response to a service encounter. Past research has indicated that satisfaction is a reliable predictor of re-purchase intentions (Wang, Tang, & Tang 2001). Thus it is considered as a strong predictor for behavioral variables such as repurchase intentions, word-of-mouth recommendations, or loyalty (Eggert & Ulaga 2002).

Store image is an important factor in the choice of store and it can be a cause in the formation of store loyalty (Yoo & Chang, 2005). Thus they believe store image attributes can be an important explanatory variable in the choice of store. So it can be a major cause variable for future performance and success that raises purchases of consumers and profits and thus a valuable asset for retail marketing management. Dodd & Lindley (2003) contend that store's own brands can provide important opportunities for retail differentiation if they are considered by consumers to be uniquely associated with store image.



Industry toil tightly to construct the brand image of their organization and its products and services (Clotey, Collier & Stodnick, 2008). They believe that better-quality day-to-day management of store functions contributes to brand image, repeat purchases, and customer loyalty. Huber and Herrmann (2001) and Clotey, Collier & Stodnick (2008) verified brand and dealer loyalty as both repeat purchase intentions and willingness to recommend a dealer or brand. Their research confirmed a statistically significant positive relationship between brand loyalty and dealer loyalty. Their definition of dealer loyalty is similar to this study that suggests that brand image has a direct link to customer loyalty.

Zeithaml (2000) signifies that past studies examined customer loyalty as being either behavioral or attitudinal. He defines that behavioral approach is that customers are loyal as long as they continue to buy and use a good or service. Loyalty mainly expressed in terms of revealed behavior (i.e. the pattern of past purchases); and buying moderated by the individual's characteristics, circumstances, and/or the purchase situation (Uncles, Dowling & Hammond 2003). Increasing relationship-enhancing activities and value received by the customer builds both salesperson-owned loyalty and loyalty to the selling firm (Palmatier, Scheer & Steenkamp 2007). Reichheld (2003) states that the strongest evidence of customer loyalty is the percentage of customers who were enthusiastic enough to refer a friend or colleague to a particular good and/or service. He articulates the attitudinal approach as a sense of customers' feelings to belong or make commitment to the good or service.

Smith and Wright (2004) used brand image, product quality, service quality, and firm viability as direct determinants of customer loyalty to predict sales growth rate and return on assets in the personal computer industry. They found service quality and firm viability to be statistically significant but brand image was not and product quality was negatively associated with customer loyalty. One of their conclusions is that—service quality—not product quality—differentiates competitors in the PC industry.

Ultimately Clotey, Collier & Stodnick (2008) concluded that together all of the research previously cited may find these three direct drivers of customer loyalty—product quality, service quality, and brand image—are universal and applicable to a wide range of industries. They confirmed brand image was the strongest driver of customer loyalty followed by product quality then service quality. It can be summed up that relationship between customer satisfaction and customer loyalty are robustly positively correlated (Grønholdt, Martensen & Kristensen 2000) and product quality, service quality, and brand image are drivers of customer loyalty in a retail setting (Clotey et al 2008). In light of the preceding discussion the following hypotheses can be proposed:

**H<sub>1</sub>:** Product quality, service quality, customer satisfaction and levels of brand image are positively associated with customer loyalty.

## **Methodology**

### **Type of Research**

Exploratory research was done to identify the relationship among variables. By this study although it was identified which variables emphasize more to create loyalty, but no solution was determined to increase loyalty.

### Data Sources

The study was conducted in the first quarter of 2018. It involved 120 current superstore shoppers residing in Dhaka city comprising the sample of female and male participants of whom the majority were female. One respondent slipped the response of repetition of buying. The study was complied with the help of primary data. Primary data were collected through questionnaire. Moreover, the desk study covered various published and unpublished materials on this field.

### Sampling Method

Non-Probability sampling using a convenient sampling method was used to select a representative sample of 120 respondents. Five leading (i.e., Agora; Meena Bazar; Swapna; The Trust Family Needs and Nandon) retail stores were chosen from several areas (i.e., Dhanmondi, Mohammadpur, Old Town and Uttara) in Dhaka city. The respondents were both male and female who have already taken services from at least one superstore.

### Instrumentation

To measure the constructs structured 5-point Likert Scale surrounding from strongly disagree (1= strongly agree) to strongly disagree (5= strongly agree) were acclimatized from Fornell et al. (1996). On the basis of the literature source five factors totaling 17 out of 18 variables, eradicating one variable for poor loading, have been selected to collect data. Table 1 explicit the operational definition of research variables.

**Table 1: Definition of Research Variables**

Constructs	Description of Constructs	Sources
Product Quality (PQ)	Buyer's overall attachment or deep commitment to a product, service, brand, or organization.	Clotey, Collier & Stodnick (2008)
Service Quality (SQ)	Service quality corresponds to the expressive performance of a service, that is, how the service is performed.	Clotey, Collier & Stodnick (2008)
Customer Satisfaction (CS)	Satisfaction is believed to occur through a matching of expectations the consumer elaborates on the evaluation of a store.	Koo (2003)
Brand Image	Organizations work hard to build the brand image of	Clotey et al (2008)

(BI)	their firm and its goods and services.	
Customer Loyalty (CL)	Customer loyalty is the customers' enthusiasms enough to refer a friend or colleague to a particular good and/or service and belonging or commitment to the good or service.	Clottey et al (2008)

**Data Analysis**

**Reliability Analysis**

As divulged, the reliability coefficient of the study variable surpassed the minimum acceptable level of 0.70 that suggested by Nunnaly (1978). As a result, Cronbach's Alpha for 18 items is used to conceal the direction to continue survey in superstore sector is 0.866. The upshot of the alpha specified an overall high reliability of the study.

**Demographic Data**

Table 2 shows the demographic analysis that points out the positive relationship between product quality, service quality, customer satisfaction and brand image with customer loyalty among different factors at significant value at  $p < 0.1$ .

**Table 2: Respondents Demographics**

<b>Gender of Respondents</b>		
Gender	Frequency	Percent
Male	57	47.5
Female	63	52.5
Total	120	100
<b>Education of respondents</b>		
Education	Frequency	Percent
Undergraduates	50	41.7
Graduate	39	32.5
Masters	27	22.5
Others	4	3.3
Total	120	100
<b>Occupation of respondents</b>		
Occupation	Frequency	Percent
Housewife	30	25.0
Service holders	29	24.2
Business persons	15	12.5

Students	46	38.3
Total	120	100
<b>Repetition of buying</b>		
Repetition	Frequency	Percent
Often	38	31.7
Sometimes	65	54.2
Hardly	16	13.3
(Missing)	1	0.8
Total	120	100

**Factors of Drivers of Customer Loyalty in Superstore**

Table 3 shows that the sample was 76.7% adequate and Bartlett's Test of Sphericity was highly significant indicating an appropriate data set and high correlation between the variables.

**Table 3: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.767	
Test of Sphericity	Bartlett's	Approx. Chi-Square	1071.281
		Df	153
		Sig.	.000

To test the dimensionality, all the 18 items were factor analyzed using principal component. In Table 4, five factors were chosen in term of eigenvalue of larger than 1.0. For the sake of convergent validity, 0.5 was used as a factor loading interrupt point. This criterion resulted in five factors totaling 17 items. Due to poor loading one variable 'retailers associates have skills to help' has been eliminated. The five factors totally explained 72.237% of the total variance where individually each factor respectively is accounted for product quality 34.193%, service quality 13.057%, customer satisfaction 9.983%, brand image 7.590% and customer Loyalty 7.414% of the variance.

**Table 4: Rotated Component Matrix**

Variables in the Factors	Factor Loading				
	Product Quality	Service Quality	Customer Satisfaction	Brand Image	Customer Loyalty

very high quality merchandise	0.726		
higher quality than others	0.850		
after using holds up well	0.680		
consistent quality merchandise	0.822		
meets quality standards	0.749		
quality consistently meets expectations	0.699		
prompt service		0.704	
caring and individual attention		0.769	
associates willingness to help to their way		0.748	
		0.740	
consistently courteous and friendly			
satisfaction to purchase at this store			0.584
			0.557
good judgment to buy at this store after shopping and coming out the store it seems right			0.724
very good brand image of store			0.812
very good brand image of products			0.593
recommendation to friends and family			0.810
belonging to the retailer in future			0.696

**Correlation Analysis**

Correlation analysis points out the positive relationship between product quality, service quality, customer satisfaction and brand image with customer loyalty among different factors at significant value at  $p < 0.1$ . Among all the predictors customer satisfaction is strongly correlated with the loyalty observed in table 5. The high correlation between product quality and customer satisfaction at  $r = 0.666$  and comparatively the lowest correlation between product quality and service quality ( $r = 0.357$ ).

**Table 5: Correlation of The Factors**

Scales	Product Quality	Service Quality	Customer Satisfaction	Brand Image	Customer Loyalty
<b>Product Quality</b>	1	.357**	.666**	.403**	.454**
<b>Service Quality</b>		1	.420**	.370**	.437**
<b>Customer Satisfaction</b>			1	.434**	.559**

**Brand Image**

1

.546\*\*

**Customer Loyalty**

1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Regression Analysis**

To determine the dependency of customer loyalty on product quality, service quality, customer satisfaction and brand image multiple regression analysis has been computed. The four predictors explain 43.8% of the total variation of customer loyalty (dependent variable) that resembles a good wedge of variation in customer loyalty by the variation in the four predictors. In ANOVA table, model p value is .000 that is less than 0.05. It demonstrates that relationship is highly significant. Whole scenario reflects the outcome of R Square 0.438 and Adjusted R Square 0.418 that interpret all the independent variables moderately explicate the variability of customer loyalty. Chin (1998) recommended R2 values for endogenous latent variables based on: 0.67 (substantial), 0.33 (moderate), 0.19 (weak). F test is used to identify the fitness of data; F=22.404, sig=.000 elucidate the regression model is a good fit of the data. Standardized coefficient beta values among four predictor lies within specific range 0.061 (-0.122to 0.240), 0.110 (-0.044to 0.250), 0.325 (0.094 to 0.379) and 0.339 (0.164 to 0.457) respectively at 5% level of significance with significant t value at p<.05. Hence we can clinch that hypothesis is not rejected as product quality, service quality, customer satisfaction and brand image are the predictors of customer loyalty.

**Table 6: Regression Results**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.662 <sup>a</sup>	0.438	0.418	0.38931

a. Predictors: (Constant), ABI, ASQ, APQ, ACS

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1	13.583	4	3.396	22.404	.000 <sup>b</sup>
	17.430	115	0.152		
	31.013	119			

a. Dependent Variable: ACL

b. Predictors: (Constant), ABI, ASQ, APQ, ACS

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.113	0.325		3.428	0.001	0.470	1.756
	APQ	0.059	0.092	0.061	0.644	0.049	-.122	0.240
	ASP	0.103	0.074	0.110	1.389	0.040	-.044	0.250
	ACS	0.236	0.072	0.325	3.289	0.001	0.094	0.379
	ABI	0.310	0.074	0.339	4.204	0.000	0.164	0.457

a. Dependent Variable: ACL

**Conclusion**

This study differs from previous studies in many ways. Previous studies identified single item either to buy again from this vendor or to recommend the retailer to friends and family to judge retail customer loyalty, but this study combined the two mentioned items as the determinants of loyalty. Unlike another research this study blended the four traits product Quality, service Quality, customer satisfaction and brand image together to determine retail stores' customer loyalty. In the context of Bangladesh although most of the research found customer satisfaction is the main initiator, this linkage with three traits product quality, service quality and brand image was not sharply observed in superstore retail sector.

Important to note about the findings that customer satisfaction has a great influence on customer loyalty. The relationship of customer loyalty with brand image is also in a good position. Customer loyalty has the moderate relationship with product quality and service quality. Service management managers can improve these drivers of customer loyalty focusing on customer satisfaction through training, serving day to day store operations etc. Further research could expand the study to other business to observe whether these statistical effects are also relevant in different sectors.

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## PROSPECTS OF 'ARCHAEOLOGICAL TOURISM' IN BANGLADESH: A CASE STUDY OF WARI-BATESHWAR

**Md. Rifat-Ur-Rahman\***

**Naznin Huq\***

### **Abstract**

*Tourism is defined as a composite of activities, services, and industries that delivers a travel experience to individuals and groups traveling from their homes for purposes of pleasure. Archaeological sites and historic places are major tourist attractions worldwide. The popularity of archaeological sites as tourist attractions means that they are valuable sources of revenue. Bangladesh comes into view as a popular tourist destination for natural and cultural heritages. These valuable heritages are the major parts of our tourism industry. The cultural heritage of Bangladesh is actually composed of our nation's physical artifacts and attributed that are inherited from its past generations. Archaeological sites fall under tangible heritages such as Wari-Bateshwar, Mahasthangarh, Paharpur Buddhist Bihara, Bagerhat Sixty Dome Mosque, Mainamati etc. The archaeological sites are visible symbols of our identity and give us a strong sense of bonding. The sites also reflect other important symbolic meaning that promote social inclusion, tolerance and respect for diversity. In this paper, a case study of Wari-Bateshwar was carried out to discuss the prospects of 'Archaeological Tourism' in Bangladesh as the issue is very significant part for us to earn revenue from the tourists.*

***Key Words:*** *Tourism, Cultural Heritage, Archaeology, Wari-Bateshwar*

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### **Introduction**

Archaeological tourism is a form of cultural tourism, which aims to promote public interest in archaeology and the conservation of historical sites. Archaeology, simply stated, is the study of human antiquities. An Archaeological site is a place where the remains of an old civilization exist, sometimes visibly but mostly under the cover of the earth. It needs a lot of careful digging and sifting which in archaeological terms is called 'excavation'. After the excavation the site reveals the existence of human settlement with houses, streets, temples, potteries, tools and other implements, sculpture, painting, writing etc. This ancient human settlement unearthed during the modern times is called archaeological heritage. The passion by the past is something inherent to the human being.

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On the other hand, 'Archaeological Tourism' focuses on visiting and experiencing ancient sites and historical places. As well as it emerges as one of the most lucrative business worldwide. Bangladesh has tremendous opportunity to develop 'Archaeological Tourism' as one of the emerging diversion of larger tourism industry. So, it will not be very difficult to attract more tourist and creating new sources of livelihood for local communities. so it requires more attention to provide visitor facilities, archaeological site conservation in a proper way, develop road communication networks as well as to ensure good facilities for food and accommodation.

The Wari-Bateshwar region in Narsingdi, Bangladesh is an ancient fort city dating back to 450 BCE. This archaeological site was discovered in the 1933 by a local school teacher, Hanif Pathan. However, formal excavation started only recently in 2000. So far it has been discovered as the first oldest city in Bangladesh. The main objective of this study is to identify the scope of archaeological tourism of Wa.ri-Bateshwar.

### **Research Methodology**

This article is based on secondary data and basically it is a descriptive research. The qualitative and quantitative data has been collected from various sources like newspapers, journals, online publications, published thesis, books and websites etc. This research is also emphasized on expert opinion to ensure the reliability of the study. Further studies need to be conducted to find out the impact of the archaeological and historical tourism on the Bangladeshi tourism sector.

### **Literature Review**

Archaeology is the study of the ancient and recent human past through material remains. Archaeology offers a unique perspective on human history and culture that has contributed greatly to our understanding of both the ancient and the recent past. An archaeological site is any place where physical remains of past human activities exist. Archaeological site may contain a wealth of important information. Artifacts are objects made or used by people that are analyzed by archaeologists to obtain information about the peoples who made and used them. Non-portable artifacts called features are also important sources of information on archaeological sites. Features include things like soil stains that indicate where storage pits, garbage dumps, structures, or fences once existed. Eco-facts found on archaeological sites are natural remains such as plant and animal remains that can help archaeologists understand diet and subsistence patterns.

Knowledge about archaeology and archaeological sites adds to the expertise of those tourism professionals who package tours or work as a guide and escorts. There has been an increased interest in cultural and heritage tourism. In some countries like Egypt, Mexico, Italy, Peru, Cambodia, India etc, tour operators package archaeological sites and monuments as tourism products and offer archaeological tours as special interest tours. India virtually has repository of Archaeological Sites and Monuments which serves the

backbone of Indian Tourism development. The development of Indian Society was revealed, only when in 1921 Harappan Civilization brought to limelight through archaeological excavation which covered areas as wide 1.8 million square kilometers (Chakrabarty 1996: 65).

Bangladesh is a country considerably rich in archaeological wealth and historical values especially from the Early Historical Period to Muslim Period. Most of the archaeological sites are still unexplored. Moreover, around 2,500 years old fortified city named War-Bateshwar has been discovered in Bangladesh. As a second oldest city, Mahasthangarh has been discovered in Bangladesh. On the other hand, we have two World Cultural Heritage Sites i.e. Paharpur Buddhist Bihara and Sixty Dome Mosque in our country. Conversely, numerous numbers of significant archaeological sites are already identified in our country.

Archaeological tourism refers to the process whereby people travel to historical and archeological places of interest. The reason why it is called archaeological tourism is due to the fact that it is often aimed at arranging visits to archeological sites where places and artifacts dating back to antiquity have been discovered, such as Wari-Bateshwar. Archeological tourism may be a means for the tourists to satisfy their curiosity regarding the ancient sites or it may be for the purpose of educating the tourists who may be students and scholars.

According to the World Tourism Organization, 'Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purpose not related to the exercise of an activity remunerated from within the place visited' (World Tourism Organization/WTO). Simultaneously Mathienson and Wall described it as 'The temporary movement of people to destinations outside their normal places of work and residence, the activities undertaken during their stay in those destinations, and the facilities created to cater to their needs' (Mathienson and Wall 1982: 87). It was also described that 'The sum of the phenomena and relationships arising from the interaction of tourists, business suppliers, host governments and host communities in the process of attracting and hosting these tourists and other visitors' (Machintosh and Goeldner 1986: 45). They also wrote that 'Heritage is not simply the past but the modern-day use of elements of the past' ((Machintosh and Goeldner 1986: 50).

Most times, it is the government of the region where the antiquities are located to promote archaeological tourism as a means of educating people about their rich cultural heritage, or simply as a means to make some money from the tourists who visit. Tourism is such a big business that some economies are mainly dependent on it for their survival. For this reason, some governments might promote their culture and encourage archeological tourism as a means to generate more funds. Tourists spend money on airfare, transportation, food, accommodation, services and the purchase of artifacts. The government also gains from the taxes imposed on the expenditure by such tourists.

On a national and international level archaeological sites have great social, cultural, and economic value. Archaeological sites are integral parts of regional histories, heritages, and identities. They are also often major tourist attractions. The economic potential has increased the pressure on archaeological sites to accommodate greater influxes of tourists and on the authorities in charge to open up more sites to tourism. Tourism expands local opportunities and brings in revenue but it can also have serious impacts on sites. Archaeo-tourism must be considered carefully and entered cautiously. Steps must be taken to maintain the integrity of the site as both a cultural resource and as a subject for research and scholarship. If negotiated properly, many future possibilities lie in the cooperation between cultural managers and tourism experts. In this session we will explore the possibilities and best practices of presenting archaeological research and communicating the importance of archaeological heritage to an interested public as well as share innovative approaches to archaeo-tourism involving local communities, technology, and more.

### **Wari-Bateshwar: Possibilities of ‘Archaeological Tourism’**

Wari-Bateshwar is very important archaeological site of Bangladesh located at Belabo, Narsinghdi district in Bangladesh. The two thousand five hundred year old fort-city stands by the bank of the river Brahmaputra. In recent research, it is assumed that Wari-Bateshwar was the ancient trade centre Sounagara as mentioned by the Greek geographer Ptolemy (Rahman 2001: 209). In 1930s, local schoolteacher Hanif Pathan and afterward his son Habibulla Pathan started collecting those artifacts and later carried out research with a curious mind. But for a long time, this potentially important archaeological site had failed to attract the attention of professional archaeologists in Bangladesh. After waiting for 60 years, archaeological exploration started in 1989 resulting regular excavation from 2000 (Rahman 2001: 219).

So far 50 archaeological sites have been discovered in and around Wari-Bateshwar fort-city located by the bank of the river old Brahmaputra. It is evident from the pattern of the archaeological sites that the ancient people established their settlements in flood-free zone. This is also the evidence of the knowledge of developed town planning and intellectual height of the ancient settlers. In the vicinity of Wari-Bateshwar, nearly 50 archaeological sites have been discovered. It is assumed that they used to live by agriculture and their surplus food productions were used to fulfill the necessity of the businessmen, priest and royal officials - those who lived in the city.

In Bangladesh, archaeologists seem to agree that Wari-Bateshwar was inhabited, in some way, by the beginning of the fourth century B.C. and abandoned by the third century A.D. Those dates are arrived at by comparing artifacts found at Wari-Bateshwar to similar ones found around the subcontinent. Hundreds of silver punch-marked coins have been found at Wari-Bateshwar, beginning with those discovered by the construction workers who attracted Hanif Pathan's attention 80 years ago. The circular and square coins bear multiple impressions of shapes such as the sun, fish, and boats. The silver

coins are very light, with nearly 15 of them needed to make up an ounce. These items link Wari-Bateshwar with the Mauryan Empire, which used punch-marked coins as its national currency. The Mauryans ruled from the late fourth century to the early second century B.C. and was the largest empire in South Asia, reaching as far west as southeastern Iran, with a population of more than 50 million people. The empire developed extensive trade networks to both the west, with the Greeks and Romans, and east into Southeast Asia. If Wari-Bateshwar were actually part of the Mauryan Empire, it may have had the clout to be Ptolemy's trading hub, Sounagoura.

### **Cultural Materials of Wari-Bateshwar**

Artifacts obtained so far from chance excavations, archaeological explorations and excavations in and around the site of Wari-Bateshwar are some stone implements, a grey soft stone amulet, a quern with a pestle, a four-legged sandstone quern bearing three auspicious symbols in relief, a ring stone, celts of fossil wood, a large number of triangular-shaped iron implements similar to prehistoric stone hand-axes, iron arrowheads, iron spearheads, iron nails, some lumps of iron ore, copper bangles, a bronze armband, fragments of high-tin bronze knobbed vessels, terracotta beads and balls, numerous potsherds of red ware (both course and fine), grey ware (both course and fine), red slipped ware, black slipped ware, Northern Black Polished ware, Rouletted ware, earthen knobbed ware, glass beads (both translucent and opaque), finished as well as unfinished semi-precious stone beads and a large number of silver punch-marked coins.

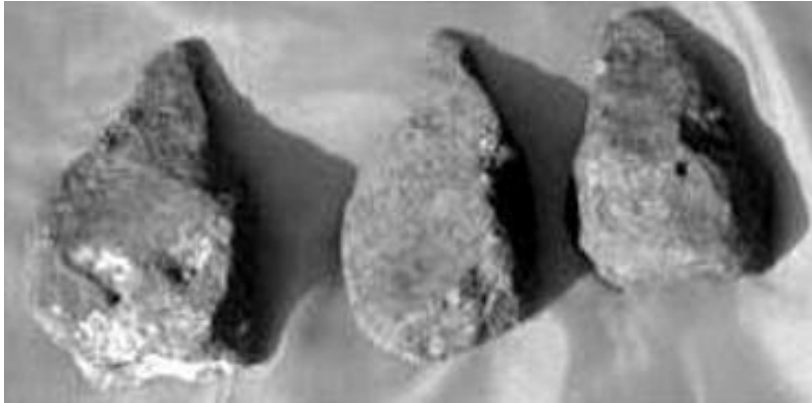


Fig. 1: Triangular-shaped iron tools from Bateshwar (Source: Jahan 2010)



Fig. 2: Iron spearheads, Wari-Bateshwar (Source: Jahan 2010)

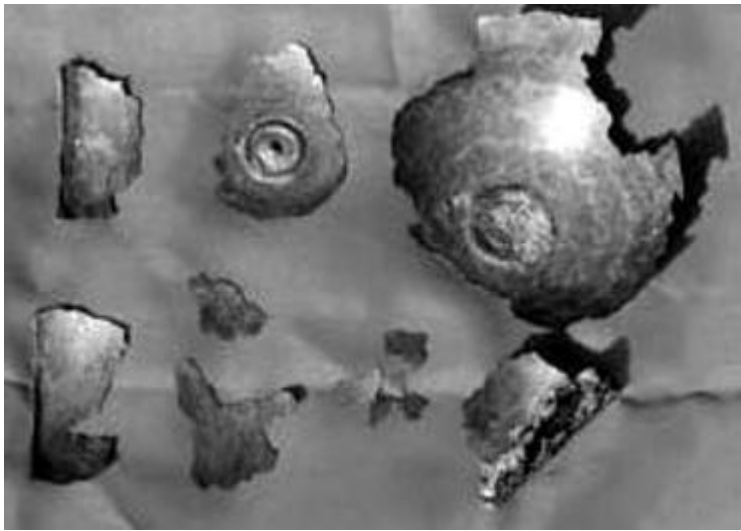


Fig. 3: Fragments of high-tin bronze knobbed vessels from Wari-Bateshwar (Source: Jahan 2010)



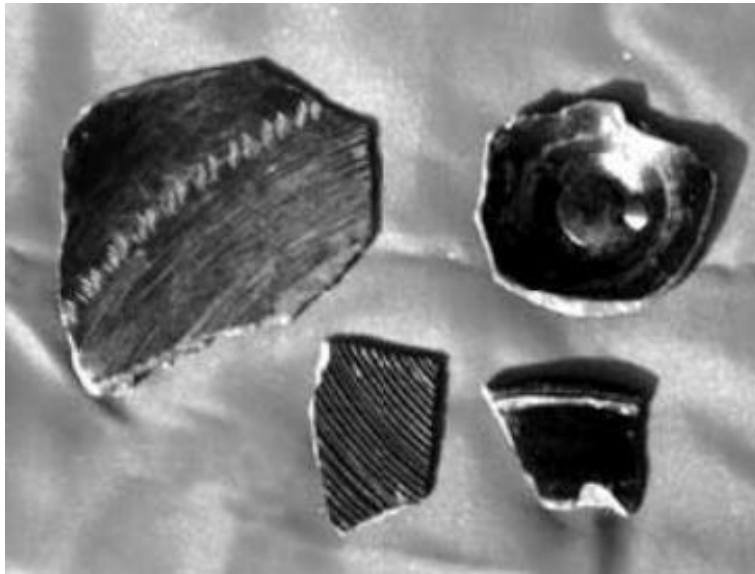


Fig. 4: Rouletted ware from Wari-Bateshwar (Source: Jahan 2010)



Fig. 5: Semi-precious stone beads from Wari-Bateshwar (Source: Jahan 2010)



Fig. 6: Silver punch-marked coins from Wari-Bateshwar (Source: Jahan 2010)

Among the stone antiquities mentioned above, the most interesting finding from Wari is a grey soft-stone plaque. The motifs depict a scene where two devotees are offering obeisance to a deity. The deity is placed on the mouth of a pitcher and holds a sword in the right hand and a shield in the left. The deity has been identified as goddess. It has been dated to the Mauryan period (Chakrabarti 1996: 78).

A large number of semi-precious stone beads have been discovered from Wari-Bateshwar. A close scrutiny of the beads revealed that they are mostly made of carnelian (including the etched variety), agate, quartz, amethyst, crystal, chalcedony, chert and jasper. The holes have been bored with remarkable skill, except in the cases of carnelian and agate, where the bores (made from both ends) fail to meet in a straight line. Along with these beads, a large quantity of core material, flakes, chips, beads without perforation and broken pieces of beads have also been discovered from the site. Discovery of etched beads, a special type of agate and carnelian beads with a white design etched on their polished surfaces, is an important indicator of trade between South and Southeast Asia during the Early Historic Period (Jahan, 2002: 133).

A sherd of coarse grey knobbed ware was found at Wari from the excavation in 2000 (Haque et al. 2000: 297). Sherds of Northern Black Polished Ware (NBPW) and Rouletted Ware have been recovered from excavations at Wari. NBPW is usually made of superfine clay of the Ganga Plain. It is well fired, thin sectioned, and has a strikingly lustrous surface. It was a precious deluxe ware. Rouletted Ware is also found from Wari-Bateshwar which is also a luxury ware. It is usually wheel-thrown, grey in color and slipped, with an unusually smooth surface, well fired with a metallic sound.

A large number of silver punch-marked coins found at Wari, Bateshwar and in neighbouring villages such as Kandua, Marjal, Joshor, Kundarpara, Jaimangal, Candipara, Patuli, Chula, Harisangan and Govasia serve as corroborative evidence to substantiate WariBateshwar's claim as a maritime port frequented by merchants. The claim is all the more valid because the number is far greater than that obtained from other areas in Bangladesh which have also yielded similar coins (i.e., Bogra, Rajshahi and Mymensingh) (Karim, 1991: 5). It is also significant that most of these coins (found from 1933 to 2006) were discovered in earthen containers, at six spots at Wari, all of which are located on the margins of marshlands. The coins are mostly circular, oval, rectangular and square in shape but a few are irregular. Various symbols such as sun, elephant, arrow, cow, tree, flower, deer, owl, lobster, boat, wheel, 'trishul', six armed devices, mountain, mountain surmounted by a crescent, tortoise, fish, bird etc. Among these boat, fish and lobster seen on some of these coins, cannot escape attention because they signify maritime connection.

### **Why do we need Archaeological Tourism?**

#### **Interest:**

Archaeological tourism combines a passion for the past with a sense of adventure and discovery. People are fascinated with ancient and historical remains. Archaeological tourism lets visitors experience the past and allows them to share in the thrill of discovery. The sometimes inaccessible nature of archaeological sites often adds the sense of adventure.

#### **Revenue:**

Of the numerous benefits of archaeological tourism, revenue is one of the most significant and the easiest to quantify. Archaeological tourism is a lucrative business and a thriving industry. Tour operators, national and local governments, and local communities share the revenue derived from tourism, including entrance cost and other related fees and taxes. Tourism also supports the local retail business (hotels, restaurants, local crafts, and souvenir stores) and provides numerous job opportunities, including the recruiting and training of guides and interpreters.

#### **Awareness:**

Archaeological tourism also creates less quantifiable benefits such as increasing awareness of an area that may otherwise have been under-appreciated as a travel destination. Increased attention can translate into income as more travelers visit the area. National and international exposure of a site can also lead to greater investment in its upkeep and maintenance by local and national governments.

**Community Development:**

Increased attention to an area can strengthen local identity as communities in the vicinity of the sites become involved and invest in the maintenance and upkeep of a site that directly benefits them. Local communities may also create programs that supplement visits to archaeological sites. Thus, archaeological tourism is an opportunity for community and regional development. Good tourism plans must encourage full participation by local business and civic groups.

**Tour Operator and Tourists:**

Benefits of archaeological tourism are not limited to the local communities and national governing agencies. Tour operators (financially) and tourists (experience) also benefit from visiting archaeological sites. A well-planned visit increases tourists' awareness of the people who built the site, the local environment, and the local resource that complement the visit. Providing visitors with a well-rounded experience creates a better-informed and satisfied traveler.

**Identity:**

Archaeological tourism can preserve and enhance national and local pride and spirit. It helps to establish and reinforce an identity.

**Preserve the cultural and historical heritage:**

Archaeological tourism helps preserve the cultural and historical heritage. Well managed archaeological tourism can restoration the archeological sites and encourage preserving it. Archaeological tourism makes it possible to find the balance between protection and use of heritage.

**Recommendations**

Considering the above analyses and discussions the present study attempts to outline the following suggestions for the betterment of archaeological and historical tourism in Bangladesh:

- ▶ Positive image of our tourism industry and enrichment of our archaeological and historical places with values must be expressed by our diplomats, ambassadors, consulates of Bangladesh in different countries of the world.
- ▶ Arrange promotional activities like; Billboard, leaflets, brochure, magazines and other promotional materials to let people know from home to abroad.
- ▶ Local people have to be informed about the attractions, rich in history, culture and heritage.

- ▶ Full-fledged tourism training institutes have to be established in a good number in different regions so as to produce skilled professionals to satisfy the needs and demands of the archaeological and historical tourist.
- ▶ Tourism facilities and services like accommodation, food and beverage, entertainments, travel agents, tour operations, shopping malls, supermarkets, transporters have to be established in good number in international standard in different archaeological and historical tourist areas by public and private sectors.
- ▶ Government can formulate long term and short term master plan for the archaeological and historical tourism development by growing the interest of the investors and commercial organizations.
- ▶ Visitors (and tour operators) should be encouraged to learn more about the areas they are visiting before embarking the tour. Supplementary materials should be provided ahead of time rather than at the sites.
- ▶ Historical and Archaeological tourism in educational curriculum has to be initiated; subjects should be introduced in the High School level.
- ▶ Bangladesh Parjatan Corporation, Bangladesh Biman and Civil Aviation Authority should work in partnership for the overall development of archaeological and historical tourism in Bangladesh and also for promoting tourism in abroad as per their areas of operation.
- ▶ Ensuring the involvement of local communities in the creation of proper tourism guidelines encourages the participation of local civic groups. It is required to make sure that the locals' benefits from the business plan of the future. Local investment in a site, both financially and philosophically, will greatly enhance site preservation and protection efforts.
- ▶ Local government are recommended to adopt financial policies to promote archaeological tourism by providing loans or providing financial advantages to those that intend to keep restore or renovate sites of historical and archeological value.

## Conclusion

Archaeological remains and its history is a great cultural asset of any country and can generate a large number of cultural tourists, if it is marketed properly. Our country is definitely rich from cultural aspects. It has been already identified that due to large number of economic, political and technological lacking, we could not manage to discover the entire archaeological remains yet. Though we have already identified a large number of monuments and other evidences; archeologists are still working to discover new ones. A great conservation and preservation system will assume its longevity and proper media converges will generate different types of cultural tourist inside and outside of the country. If tourism is not carefully and effectively managed at areas that contain

archaeological resources, the scientific and historic values of those can be lost irretrievably with the material itself. We can manage the situation only through the careful study of those materials. This is not speculation; there is ample evidence that the archaeological and historical record has become increasingly compromised in recent decades as numbers of visitors to archaeological and historical sites have grown. So, careful studies and specialize handling through experts can help to minimize those risks and increase the potentiality for future growth of the tourism industry of Bangladesh. Both the foreign and the private sectors' investment are quite insufficient in archaeological and historical tourism development in Bangladesh. This paper suggests taking necessary policies to attract these investments as this sector require huge maintenance with technology and expert support.

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## A CONTENT ANALYSIS OF MISSION STATEMENT IN THE PRIVATE COMMERCIAL BANKS OF BANGLADESH

Farjana Yeshmin\*

### **Abstract:**

*A mission statement is an integrated communication tool to convey organization's policies, procedures, plans, and strategies to the divergent stakeholders. The purpose of this study is to focus on the content analysis of mission statement in the private commercial banks of Bangladesh. The findings show that among 28 sample banks, only three banks disclose all the components prescribed by David. The banks are always searching competitive advantage by offering new products and services to the valuable customers. Finally, the study has found product/service as the most significant content in the mission statement of the sample banks. On a whole, it can be suggested that technology must be taken into consideration with the development of product and services in the mission statements.*

**Key Terms:** Content analysis, Bank, Mission statement, Technology

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### **Introduction**

A mission statement acts as an internal communication tool that conveys an organization's policies, procedures, plans, and strategies, thereby guiding the behaviors and decisions of management and subordinates. Simultaneously, the mission statement serves as an external communication tool to convey the organization's intentions to the general public (Bartkus & Glassman, 2008). Researchers have defined mission statement as statements of purpose, values statements, goals and strategies, corporate creed, corporate philosophy and so on. A good mission statement describes an organization's purpose, products, services, markets, philosophy and basic technology to chart the future direction of an organization. Development of an organizational mission is an essential part of strategic planning and strategic management (Devid, 2005). A mission statement establishes the values, beliefs, and guidelines for the way the organization conducts its business and determines its relationships with the stakeholders – employees, customers, shareholders, suppliers, governments, and the community (Ackoff R., 1987).

Mission statement as a written formal documents that attempts to capture an organization's unique and enduring purpose and practice (Bart & Tabone, 1998). In simple words, a mission statement "tells two facts about a company: who it is and what it does" (Fasly, 1989, p.3). Similarly, Cochran et al., (2008) state that mission statement "is a declaration of an organization's businesses or reason for being" (p. 27). In

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straightforward words, "a mission statement reveals what an organization want to be and whom it wants to serve"(Fred, 2003, p. 59).

The present study would show the content analysis of mission statement in private commercial bank sin Bangladesh, as there is no specific content analysis of mission statement in the banking sector earlier. The research paper has been structured as: At first, the author has reviewed literature. Then the objective has been set. Next section focuses on the methodology to achieve the objectives. Then analysis and findings are given. And finally conclusive remarks have given.

### **Literature Review:**

The study of mission statements started in the early 1970s and has expanded since then to take a key place in both the literature and the strategic planning processes of organizations. This trend has granted researching mission statements a focused popularity in academic writings as well as in organizations' strategic management process.

Researchers have mentioned different opinions about the content of mission statement of organization. Bart claims to clear the firm's mission, 25 contents is required (Bart C.K. Matters J.,1998). Campbell and Yeung (1991) state that an effective mission statement consists of four contents; they are – purpose, strategy, behavior and value. They claim that this will bind the organization to continue together with the strong corporate culture. However, the study has tempted to analyze the content of mission statement from the perspective of Pearce and David. Pearce and David (1987) state that an effective mission statement exhibits nine characteristics or components as below:

<b>SL#</b>	<b>Name of Contents</b>	<b>Description</b>
1.	Customer	Who are the organizations' customers?
2.	Products/services	What are the organization products or services?
3.	Location/market	Where does the organization compete?
4.	Technology	Is Technology a primary concern of the organization?
5.	Concern for profitability, growth and survival	Is the organization committed to economic objectives?
6.	Philosophy	What are the basic beliefs, values, aspirations, and philosophical priorities of the firm?
7.	Self concept	What is the organization's distinctive competence or major competitive advantage?
8.	Concern for public image	Is the organization responsive to social, community and environmental concerns?
9.	Concern for employees	Are employees considered to be a valuable asset of the organization?



**Table – 01: Nine Contents of Mission Statement (David, 1999, 2003).**

One of the first earlier studies that aimed at identifying the components of mission statement was conducted by Pearce (1982) who asserts that the products or services, market and technology are the main three components of mission statement, followed by a study conducted by Pearce and David (1987) who reported eight essential components of mission statement: customers, products or services, market, technology, attention for survival, growth and profitability, philosophy, self-concept, and public image. David (1982) believes that there are three main components of a mission statement: product or service, market and technology. In his study, Want (1986) suggests five components of mission statements: purpose, business aims, corporate identity, company policies, and values. According to Campbell and Tawadey (1992), the main components of mission statement are: customers, products or services, location, technology, survival, philosophy, self-concept, public image, and employees. Piercy et al., (1994) concluded that the holistic mission statement should primarily include four parts: philosophy, product or market scope, key values and the identification of key success factors/Bart Christopher K. (1998) has examined 72 North American Corporations by analyzing 25 mission components. According to Sufi and Lyons (2003) based on a comprehensive review of literature of the components of mission statements found the most common items are: concern for customers, communication, survival, values, employee care, quality/innovation, public image, business, location and self concept purpose, identity or image, differentiation factors, corporate values, products, markets, concern for survival, growth, profitability, company philosophy, employees and social concern.

Analoui and karami (2002) found, mission statement that includes: long term profit, survival and growth, customer satisfaction, core technology, market, company values and philosophy, product and services quality, public image, geographic domain, self-concept, and concern for suppliers are the main components of mission statement. Hossain Dewan Mahboob Hossain (2004) has focused on the mission statements of fifteen companies Bangladeshi companies according to the criteria given by Fred R. David. By evaluating these mission statements a conclusion was drawn that the Bangladeshi companies are preparing their mission statements without knowing the basic characteristics that mission statements should possess.

Recently, due to the current business conditions and global economic and environmental conditions, King et al., (2010) contend that a mission statement must be, revised, updated and aligned to cope with current changes and developments of environment. They believe that mission statement should be more universal and should contain new components such as going green concept which can be reflected in three aspects: Ethical behavior, being socially responsible, and protecting the environment. Whleen and Hunger (2012) mentioned that there are nine components to assess mission statement measures in small and medium sized enterprises (SMEs), . These components are purpose, product or service, competitive advantage, scope of operations, philosophy, vision, and sense of shared expectations, public image, and focus on technology, creativity and innovation.

Valerij Dermol (2012) identified that mission statement is a managerial tool which has the power of directing the behavior in a company. Based on a sample of 394 Slovenian companies the study has explored the relationship between the existence of a mission statement and company performance. The evaluation of the mission statements of Omani firms has showed that the sample firms generally did not include the needed components in their mission statements. However, the readability level of those documents was optimal overall (Rajasekar James, 2013). David Meredith E., David Forest R. and David Fred R. (2014) have used content analysis of nine mission statements to provide direction for researchers to examine statements, and practitioners to create and modify statements, from a customer perspective. This study provides a theoretical foundation for researchers to examine mission statements from a customer perspective. K G Rajani and K V Vijay Lakshmy (2014) have done a study on the mission statements of 10 banks in India. Where prime importance is given to their customers and technology is least important.

Sandana Maxwell (2014) has attempted to establish the effect of mission and vision, environmental scanning and the formality of the strategic planning process on the performance of SMEs by applying quantitative research approach through a self-administered survey questionnaire. The main findings of the study suggest that, the mission and vision statements, environmental scanning and the formality of strategic planning have a positive effect on the performance of SMEs. Alawneh Ammar Ali (2015) has aimed at assessing mission statements of 13 Jordanian banks. The results indicate that banks are very interested to possess mission statements. The results also provide no support to the correlation between mission statements' components and performance.

The study was conducted to investigate the relationship between mission statement and company performance in the banking sector in Nigeria. That study shows that with purpose-driven mission statement, companies' turnover, customers' satisfaction, social responsibility and shareholders' equity can be achieved (Ogbari Mercy E., Oke Adunola Oluremi, Ajagbe Musibau Akintunde, T. Isiavwe David, 2015). Arefin Md. Shamsul, Rajib Md. Salah Uddin and Bhuiyan Md. Yeasir Arafat (2018) have identified missing links of mission statement with its probable impact regarding this, it deals with the content analysis of mission statement of pharmaceutical industry of Bangladesh.

The present study has attempted to analyze the contents of mission statement in the private commercial banks of Bangladesh.

### **Objectives of the study**

- To show the content analysis of the mission statements in the private commercial banks.
- To identify the significant content in the mission statements.
- To focus on the comparative analysis regarding the disclosure of contents.

### Methodology of the study

This study has collected the mission statements from the annual report of 28 private commercial banks as sample banks (Table – 02) in Bangladesh. The study has attempted to analyze the content of mission statement of the sample banks on the basis of the scale of 1= statement does not include the component, 2=Statement includes the component in vague terms and 3= statement includes the component in specific terms. The sample is classified into conventional private commercial banks and Islamic Shariah based private commercial banks. represents 70% % of the total population. Data has been processed during the period of May 2018 to July 2018. Content analysis (Zikmund, 2003) has been done to show the presence of the contents in the mission statements of the sample banks. Secondly, the percentage term has been used to show the presence of the content in the mission statement. And finally, the study has used average score to identify the most significant content in the mission statements of the sample banks.

Categories	Population	Sample
Conventional Private Commercial Banks (CPBs)	32	22
Islamic Shariah Based Private Commercial Banks (IPBs)	08	06
Total	40	28

**Table – 02: Sample Size of the Study**

### Results and Discussion

The author has presented the content analysis (Appendix – I) of the mission statement in the sample banks. Table – 03 shows the presence of contents in the mission statements in the conventional private Banks. Two conventional private commercial banks disclose 100% components in the mission statement. These are Brac Bank Limited and Jamuna Bank Limited.

SL. No.	Name of Banks	Presence of Components (Score out of 9)	Percent (%)
1.	AB Bank Ltd. (ABBL)	4	44%
2.	Bank Asia Ltd. (BAL)	7	78%
3.	Brac Bank Ltd. (BracBL)	9	100%
4.	City Bank Ltd. (CBL)	7	78%
5.	Dhaka Bank Ltd. (DBL)	7	78%
6.	Dutch Bangla Bank Ltd. (DBBL)	5	56%
7.	Eastern Bank Ltd. (EBL)	6	67%
8.	The International Finance Investment and Commerce Bank Ltd. (IFICBL)	7	78%

9.	Jamuna Bank Ltd. (JMBL)	9	100%
10.	Mercantile Bank Ltd. (MBL)	3	33%
11.	Mutual Trust Bank Ltd. (MTBL)	7	78%
12.	National Bank Ltd. (NBL)	8	89%
13.	National Credit & Commerce Bank Ltd. (NCCBL)	7	78%
14.	One Bank Ltd. (OBL)	5	56%
15.	Premier Bank Ltd. (PRBL)	7	78%
16.	Prime Bank Ltd. (PBL)	6	67%
17.	Pubali Bank Ltd. (PBBL)	7	78%
18.	Southeast Bank Ltd. (SOBL)	7	78%
19.	Standard Bank Ltd. (STBL)	4	44%
20.	Trust Bank Ltd. (TBL)	8	89%
21.	United Commercial Bank Ltd. (UCBL)	4	44%
22.	Uttara bank Ltd. (UBL)	8	89%

**Table – 03 : The presence of components in the mission statements of CPBs**  
**Source: Mission Statements of Annual Report 2016**

Among the Islamic Shariah based private commercial banks (Table – 04) only one banks Social Islami Bank Limited has presented all nine contents prescribed by David.

SL. No.	Name of Banks	Presence of Components (Score out of 9)	Percent (%)
1	Al-Arafah Islami bank Ltd. (ALBL)	7	78%
2.	Export Import Bank Ltd. (EXIMBL)	7	78%
3.	First Security Bank Ltd. (FSBL)	6	67%
4.	Islami Bank Ltd. (IBL)	3	33%
5.	Shahajalal Islami Bank Ltd. (SIBL)	7	78%
6.	Social Islami Bank Ltd. (SOIBL)	9	100%

**Table – 04: The presence of components in the mission statements of IPBs**  
**Source: Mission Statements of Annual Report 2016**

From the detail content analysis (Appendix – I) the study has found that 82.14% banks have given most emphasis on self-concept (Table – 05) i.e. the banks are always searching competitive advantage by offering new products and services to the valuable customers. As the author has found that both the contents have been presented by 22

banks in their mission statements. It is also mentioned that 75% of the sample banks are emphasizing on profitability, growth and public image to survive in the long run.

<b>Components of mission statement</b>	<b>No. of banks emphasizing the components</b>	<b>% of the sample banks</b>
Customers	22	78.57%
Product/services	22	78.57%
Location/market	12	42.86%
Technology	15	53.57%
Profitability, growth & survival	21	75%
Philosophy	18	64.29%
Self-Concept	23	82.14%
Public Image	21	75%
Employees	16	57.14%

**Table – 05: Number of banks disclosing nine contents**

Finally the author has used average score (Table – 06) to identify most significant Content in the mission statements. Based on the average-score result, the most significant content (average score = 2.50) is customers in case of conventional private commercial banks. On the other hand, products/services (average score = 2.83) are the most significant in case of Islamic shariah based private commercial banks. Simultaneously, location/market is not given priority in the conventional private commercial banks and self-concept is less significant in Islamic shariah based private commercial banks as these two content show lowest average score i.e. 1.95 and 1.83 respectively.

<b>Name of Contents</b>	<b>CPBs</b>	<b>IPBs</b>
Customer	2.50	2.50
Products/services	2.45	2.83
Location/market	1.50	2.00
Technology	1.95	2.33
Profitability, growth and survival	2.32	2.33
Philosophy	1.91	2.67
Self-concept	2.32	1.83
Concern for public image	2.23	2.33
Concern for employees	2.09	2.33

**Table – 06: Average score of mission statement analysis**

The findings of the study show that the banking industry is lagging behind to disclose the content of mission statement prescribed by David. Only three banks out of sample banks of this study disclose all the components (100%). Self-concept is disclosed by 23 banks to be competitive in the banking industry in the long run. Finally, the study has found product/service as the most significant content in the mission statement of the sample banks.

### Conclusive Remarks

A mission statement acts as an integrated communication tool that conveys an organization's policies, procedures, plans, and strategies, thereby guiding the behaviors and decisions of management and subordinates to the general public. The banks that are giving maximum importance to their main stakeholders, the Customers. They are increasingly taking competitive advantage by offering innovative products/service with modern technologies. Banks now a day make maximum use of computer technology. Most of the innovations that they have made are purely depended on Technology. So, including that component in the mission statement also demands much attention. On a whole, it can be advised that mainly Technology and Products/ Services must be taken into consideration in the mission statements. The mission statements, as they are supposed to reflect true picture on the business of a firm, it would be appreciable if these suggestions be considered and followed up.

### Appendix – I : Content analysis of mission statements

Name of Banks	Customers	Product/ services	Location / market	Technology	Profitability, growth & survival	Philosophy	Self concept	Public Image	Employees
ABBL	1	1	2	1	2	1	2	1	1
BAL	3	3	1	3	3	2	2	1	3
BracBL	2	3	3	1	3	3	2	3	3
CBL	3	3	1	3	1	2	3	3	2
DBL	1	3	2	3	2	2	3	1	3
DBBL	1	3	1	1	3	2	2	3	1
EBL	3	1	1	2	1	2	2	3	3
IFICBL	3	3	1	1	3	3	3	3	3
JMBL	3	3	2	3	3	1	2	2	3
MBL	2	1	1	1	3	1	3	1	1
MTBL	3	3	2	2	2	1	3	2	1

NBL	2	3	2	2	2	2	2	3	1
NCCBL	3	3	3	3	3	1	2	3	1
OBL	3	2	1	1	1	2	1	3	3
PrBL	3	3	1	3	3	3	3	3	1
PBL	3	1	1	3	2	2	2	2	1
PBBL	3	3	1	3	2	1	2	2	3
SOBL	3	3	1	1	3	3	3	3	3
STBL	1	1	2	1	3	1	3	1	2
TBL	3	3	1	3	3	3	2	2	3
UCBL	3	2	1	1	1	1	2	2	1
UBL	3	3	2	1	2	3	2	2	3
AIBL	3	3	1	3	1	3	3	2	3
EXIMBL	3	3	2	3	3	3	1	2	1
FSBL	1	3	2	1	3	3	1	3	3
IBL	2	2	1	1	1	1	1	3	1
SIBL	3	3	3	3	3	3	2	1	3
SOIBL	3	3	3	3	3	3	3	3	3

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# THE IMPACT OF ORGANIZATIONAL CULTURE ON EMPLOYEE RETENTION: AN EMPIRICAL STUDY ON THE INFORMATION TECHNOLOGY SECTOR OF BANGLADESH.

Nusrat Fatema \*

## Abstract

*In recent years, competitive advantage to any organization is to retain and engage the high potential talent. This paper, therefore, tries to provide an insight into the impact of organizational culture on employee retention by focusing on the information technology (IT) sector of Bangladesh. In this study, organizational culture and employee retention are used as independent and dependent variable respectively. 475 employees working in 30 different software and ITES (IT Enabled Service) companies of Bangladesh are selected as sample following convenience sampling technique. Data are gathered by quantitative survey using a structured questionnaire. Several statistical techniques, such as independent sample t-test, ANOVA and correlation, are applied using SPSS software. Based on the analysis it is found that; from the demographic perspective, the respondents are differentiated in their opinion regarding the impact of organizational culture on employee retention. But from the overall perspective, organizational culture and its dimensions are found to be positively and significantly correlated with employee retention. So, it was concluded that organizational culture facilitates employee retention in the IT Sector of Bangladesh.*

**Keywords:** *Organizational culture, Employee Retention, Information Technology (IT) sector, Innovativeness, Adaptive Ability.*

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## Introduction:

In this era of increasingly competitive and turbulent business environment; effective resourcing, management and retention of human capital are considered as the crucial factors of organizational survival, adaptation and competitive advantage (Michaels, Field-Jones & Axelrod, 2001). In fact, now-a-days employee retention is the main consideration of human resource (HR) debate rather than recruiting effectively. Employees' retention is the ability to keep the employees in the organization and find solution to avoid losing the valuable staffs (Heery and Noon, 2001). One way of doing so is by revamping and improving the organizational culture in order to seek innovations and make the most of the potential of the existing staff and organization.

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Organizational culture is an important recipe for the encouragement or discouragement of behaviors in organization (Dell & Kumasey, 2013). It determines things like loyalty and commitment, how employees work and how far they are prepared to take risks (Amah, 2012) and is affected by attitudes, norms and beliefs that lead to strong communication between employees. It serves as a link or bond between employees and organization. Organizational culture affects such outcomes as productivity, performance, commitment, self-confidence, and retention (Ritchie, 2000). In addition, it can also increase or decrease employee retention rates in organizations by affecting the commitment levels of employees in organizations (Deal & Kennedy, 1989). As employees are considered to be the key resource of an organization, in order to gain competitive market advantage organizations should not only hire but also retain competent and talented employees for the long-term growth as well as success of the business (Heathfield, 1995).

The Information Technology (IT) industry is one of the most booming industries in Bangladesh. In today's competitive environment, IT companies are continually seeking new ways to become more competitive. The prime challenge for such company is the retention of the employees, as a result of increased competition in the market and for the fact that the staffs are ready to switch over whenever they are dissatisfied with anything on the job. Organizational culture is one of the certain reasons for the employees decision to leave or stay in an organization. In addition, if employees are excited about the culture of an organization, they tend to become emotionally and psychologically attached to that organization (Sathe, 1983). According to Sheridan (1992), organizational culture have a strong impact on employee's retention rates. So, in order to survive the competition as a result of innovation; IT companies need to change their status-quo, have their own culture nurtured and sustained for the overall achievement of goals, and develop an in-depth understanding of the culture to be able to harness them to bring about high level of job commitment from employees.

In this research, organizational culture is taken as independent variable and employee retention in the IT sector of Bangladesh is considered as dependent variable. Detail-orientation, Innovativeness, Aggressiveness, Outcome-orientation, Stability, People-orientation, Team-orientation, Social responsibility, Transparent Governance, Adaptive Ability, Open Communication, supportive environment and autonomy are considered as the dimensions of an organizational culture.

This article therefore added to the literature by not only providing an insight into the impact of organizational culture on the employee retention, but also suggested ways to overcome the problems and improve the current practices in the IT sector of Bangladesh. So the research question is: "Does organizational culture facilitates employee retention in the information technology (IT) sector of Bangladesh?"

First, a brief background has been provided regarding the research gap concerning the impact of organizational culture on employee retention focusing on the IT sector. Next, several hypotheses have been developed based on the review of literature. Thereafter, the

methods and results of the data analysis have been provided. The article has been concluded by the evaluation of whether organizational culture has any impact on employee retention in the information technology (IT) sector of Bangladesh.

## **Objectives of the Study**

### ***Broad Objective***

The present study is an attempt to conceptualize the impact of organizational culture on employee retention in the IT sector of Bangladesh.

### ***Specific Objectives***

- i. To analyze the differences among organizational culture and employee retention based on demographic factors.
- ii. To examine the relationship between organizational culture and employee retention.
- iii. To examine the relationship between the dimensions of organizational culture (namely: Detail-orientation, Innovativeness, Aggressiveness, Outcome-orientation, Stability, People-orientation, Team-orientation, Social responsibility, Transparent Governance, Adaptive Ability, Open Communication, supportive environment, autonomy) and employee retention.

## **Literature Review and Hypothesis Development**

Various studies by different researches have linked the culture of an organization with many different organizational behaviors. They have also recognized the correlation between culture of organization & employee retention. The following section demonstrates the main literature that discussed about organizational culture and employee retention and ultimately the interrelationship among these two concepts.

Organizational culture is the mindset of people that distinguishes them from each other, within the organization or outside the organization. This includes values, beliefs, and behaviors of the employee's different from the other organization (Hofstede, 2001). O'Reilly and Chatman (1986) defined organizational culture as a set of behavior, attitude and value that distinguish one organization from another. It means stable arrangements of beliefs and norms, which are held commonly by a society or department in the organization (Kotter & Heskett, 1992). Greenberg and Baron (1995) defined organizational culture as a framework of values, beliefs, consisting of attitudes, norms; behavior of employees, and their expectations, which are shared within the organization by its members. In the words of Sinha (1990) organizational culture can be defined as work related activities in the frame work of norms and values regarding work. Organizational culture is the behavior of humans who are part of an organization and the meanings that the people attach to their actions (Zahoor, 2015). It affects the way

employees interact with each other, with clients and stakeholders. It is the focal point that affects employee commitment and engagement in an organization. Culture of organization creates commitment beyond the personal interests and benefits (Robbins, Stephen, and Mary, 1996).

On the other hand, employee retention can be defined as the effort by an employer to keep desirable workers in order to meet the business objectives by keeping the right people on the right jobs (Frank, Finnegan and Taylor, 2004). It is the ability to hold on to employees where an organization finds that it is losing valuable staff (Heery & Noon, 2001). By holding onto its best employees, a company can ensure high productivity and, accordingly, better profits. Gberevbie (2010) argues that if companies implement employee retention plans, employees will remain with the company and work towards the company's organizational goals. Due to the need for effective and efficient delivery of goods and services by organizations, day by day it is becoming more essential to secure and manage competent human resource as the most valuable resource of any organization (Olowu and Adamolekun, 2010, cited in Das and Baruah, 2013).

The demographic characteristics of employees play an important role in their perceptions of organizational culture (Helms & Stern, 2001). Employees' perceptions of organizational culture, for instance, differ according to characteristics such as gender and age (Bellou, 2010). Employees' values also change depending on their nationality, age and education level (Hofstede et al., 1990). In a study conducted in different branches of a hospital group (seen in its role as a service enterprise), Helms and Stern (2001) found that both the background of employees and their sectoral work experience affect organizational culture more than experience acquired in the workplace does.

Research in South African organizations illustrates the impact of particular demographic differences on organizational culture. Martins (2007), for instance, found that subcultures that were formed in various regions impacted the way employees interpret and experience organizational culture. In an empirical study, Islam and Ismail (2008) noted that the demographic factors of respondents such as their gender, age and education level might affect their preference in terms of particular motivating factors. As a result, by the above evidence, the following hypothesis has been developed.

H1: There are significant differences among organizational culture and employee retention based on demographic factors.

Culture of an organization is an important element which significantly influences employee commitment, job satisfaction and ultimately employee retention (Habib et al., 2014). Michani, Sadeghi and Michani (2015) conducted a survey in Markazi Province Gas Company to investigate the relationship between organizational culture and staff retention. The findings was consistent with other results, based on which it can be inferred that the organizational culture has an impact on the staff retention and this can be the strong point for senior managers to have positive impact on staff behavior. Culture has a positive relationship with employee retention. Developing an effective

organizational culture is one of the important Human Resource (HR) practices which can increase employee retention reducing turnover within an organization (Maqsood et al., 2015). Based on the above evidence, the following hypothesis is formulated.

H2: There is a significant relationship between organizational culture and employee retention.

Organizational culture gives a sense of identity to the members in the organization. It is a normal way to guide people of what is expected of them at the workplace. Organizational Culture affects the way in which employee consciously or unconsciously think, make decisions and ultimately the way they perceive, feel and act (Lok, & Grawfold, 2004; Hansen, & Wernerfelt, 1989; Schein, 1992). Thus, culture is the most important hallmark of excellent companies (Peters, & Waterman, 2006). Dimensions of organizational culture differ from author to author. According to Collins and Porras (2000), the essence of an organizations culture can be captured in seven primary characteristics, such as, innovation and risk – taking, attention to detail, outcome orientation, People orientation, Team orientation, Aggressiveness and Stability. Ogbonna and Harris (2000) christened the dimensions of organizational culture as: innovative, community, competitive, and bureaucratic cultures.

Evidence by Raudenbush & Bryk (2002) suggested that retention is very important for every organization. Cappelli (2000) indicated several factors for the well-functioning of employee retention. Employees prefer working to their fullest potential in organizations where there is a sense of pride, conducive working environment and good interpersonal relationship among employers and employees (Cole, 2000; Asmed, 2000). Selecting and retaining talented staff is key for any business success. Companies invest in their workforces when they pursue practices and develop programs that increase retention. Failing to make such investments might incur high cost of turnover (Mitchell, Holtom, & Graske, 2001). Organizations always search for talented employees and spent time and money on their employees for future return aspects. Factors like lack of skilled workforce, economic growth and employee turnover demand to devise policies to increase employee retention. Talented people who continue to develop skills and increase their value to an organization and to the customer are the most important resource. Employee retention is very important in the sense that if employees leave an organization, they leave with intellectual property, relationships and Investments (in both time and money). Therefore, management should identify the reasons for frequent change of employment by employees and once the reasons are identified, management can then devise retention strategies that would help in keeping essential employees for a longer tenure. Therefore, the following null hypothesis is projected.

H3: There is a significant relationship between the dimensions of organizational culture (namely: Detail-orientation, Innovativeness, Aggressiveness, Outcome-orientation, Stability, People-orientation, Team-orientation, Social responsibility, Transparent

Governance, Adaptive Ability, Open Communication, supportive environment, autonomy)and employee retention.

## **Research Gap**

Various authors and researchers of countries like Ghana, Pakistan and India have conducted their research work focusing on organizational culture and its relationship with employee retention. Majority of those studies paid attention to the banking sector in that regard. They recognized organizational culture as an important instrument for making employees stay with their current organizations. But very few of them focused on the IT sector of Bangladesh.

A fair enough organizational culture can help an organization to retain employees for a longer period of time (Usha & Rashmi, 2013). Different dimensions that constitute such organizational culture can play important role as factors of employee retention. But these dimensions also lacked proper attention in many of the studies related to employee retention. Thus creating a research gap that needs to be filled.

Most of the research work based on empirical evidence, especially relevant for Information Technology (IT) sector, showed contradiction about the impact of organizational culture on employee retention. This contradiction raises the question of whether organizational culture enhances the employee retention or not. So there is a need to further research to cover up this gap.

This study, therefore, bridges the above mentioned gaps by not only exploring the relationship between organizational culture and employee retention, but also assessing the influence of different dimensions of organizational culture on employee retention in the IT sector of Bangladesh.

## **Methodology**

### **Research design**

The purpose of the research is to provide an insight into the impact of organizational culture on employee retention in the IT sector of Bangladesh. Two sources have been used to collect data for this research.

i) The primary source refers to the collection of quantitative data from the employees of the IT (Information Technology) sector in Bangladesh. Structured questionnaire was used to get sufficient data. ii) The secondary source refers to the collection of different publications of this field.



## **Population**

The target sector of this study is the IT (Information Technology) sector of Bangladesh. The target population of the study are the employees of all the software and ITES (IT Enabled Service) companies in Bangladesh.. According to the 2017 Bangladesh Association of Software and Information Services (BASIS) survey, there are an estimated 4500+ IT firms in Bangladesh doing business for both local and international markets with an estimated 300,000 professionals working in this sector (LankaBangla Asset Management, 2018). So the target population of the study are those 300,000 professionals who are working in the IT sector of Bangladesh.

## **Sample size and Sampling technique**

For the purpose of this study, 30 (thirty) different ITES (IT Enabled Service) companies of Bangladesh were selected as sample from the above stated number of the IT firms. The sample size considered for present survey was 25 respondents from each of the 30 selected software and ITES (IT Enabled Service) companies. In total 750 questionnaires were distributed among employees, 553 were collected and out of them 78 were termed as inappropriate and finally 475 were identified as valid samples to carry further research. The respondents were executives and managers. Convenience sampling technique was used to collect data from employees of IT sector.

## **Instrument and Data Collection**

The survey was conducted by distributing the questionnaire amongst employees of concerned sector. The questionnaire comprised of three sections, the first section solicited demographic detail about respondents i.e. gender, age, marital status, educational qualifications, designation, income and experience. Whereas, the second part comprised of organizational culture and third part comprised of employee retention. The questionnaire measured on 5 point likert scale, where 5 indicates strongly agree and 1 strongly disagree.

## **Data analysis technique**

The Statistical Package of Social Science (SPSS) was used for analysis. Independent Sample t-test, ANOVA and Correlation were applied to data analysis.

## **Analysis and Findings**

Differences in the organizational culture and employee retention were analyzed on the basis of demographic variables. Based on various tests, results are summarized as below. A sample of 475 respondents has been taken for the study. Out of the total 475 respondents, 365 were male and 110 were female participants. Both male and female respondents' age ranged from 25 years to 45 years. Maximum 256 were married while

rest unmarried employees. The majority of the respondents belonged to income group of TK. 25,000- TK. 50,000 per month with 0-5 years of job experience.

**Table 1 ANOVA and t-test for Organizational Culture on the Basis of Demographic Factors**

	Organizational Culture	N	Mean	Std. Deviation	F-value/t-Test Value	Sig.
Gender	Male	365	54.91	9.095	2.103	0.520
	Female	110	52.85	8.548		
Age (in years)	Below 25	73	52.12	9.724	4.801	0.003
	25-35	361	55.10	8.751		
	36-45	32	54.44	9.682		
Marital Status	Above 45	9	46.33	1.000	2.170	0.460
	Unmarried	219	55.40	8.801		
	Married	256	53.61	9.110		
Educational Qualifications	Graduate	265	52.93	9.420	9.154	0.000
	Post-Graduate	205	56.42	8.094		
	Doctorate	5	52.20	7.120		
Designation	Manager	196	54.41	9.467	-0.047	0.062
	Executive	279	54.45	8.682		
	Below 50000	267	54.02	9.203		
Income (in Tk.)	50000-75000	125	55.36	8.390	0.682	0.563
	76000-100000	68	54.16	9.163		
	Above 100000	15	55.20	9.930		
Experience (in years)	Below 5	229	54.89	9.070	6.049	0.000
	05-10	204	55.03	9.062		
	11-15	34	49.68	6.879		
	Above 15	8	46.25	1.389		

As revealed in table 1, Age ( $F = 4.801$ ,  $p = .003 < 0.05$ ), Educational Qualifications ( $F = 9.154$ ,  $p = .000 < 0.05$ ) and Job Experience ( $F = 6.049$ ,  $p = .000 < 0.05$ ) revealed significant differences among the professionals in IT industry in terms of organizational culture. Therefore, the null hypothesis is rejected. This study reveals that there is a significant difference regarding organizational culture among the professionals in IT industry on account of demographic factors. Whereas, Gender ( $t = 2.103$ ,  $p = .520 > 0.05$ ), Marital Status ( $t = 2.170$ ,  $p = .460 > 0.05$ ), Designation ( $t = -.047$ ,  $p = .062 > 0.05$ )

and Income ( $F = .682$ ,  $p = .563 > 0.05$ ) revealed no significant differences among the professionals in IT industry in terms of organizational culture. Therefore, null hypothesis is accepted. Employees in the age group of 25-35 years were more concerned about organizational culture than other age groups. Therefore, it can be deduced that in the age group of 25-35 years professionals in IT industry become more concerned about organizational culture than the other age group of 36-45 years, below 25 years and above 45 years.

**Table-2: ANOVA and t-test for Employee Retention on the basis of Demographic Factors**

Employee Retention		N	Mean	Std. Deviation	F-value/t-Test Value	Sig.
Gender	Male	365	69.56	10.624	1.332	0.081
	Female	110	68.06	9.143		
Age (in years)	Below 25	73	65.85	7.657	4.566	0.004
	25-35	361	70.18	10.427		
	36-45	32	66.69	13.367		
	Above 45	9	66.67	2.784		
Marital Status	Unmarried	219	69.36	9.258	0.289	0.044
	Married	256	69.09	11.149		
Educational Qualifications	Graduate	265	68.61	10.409	4.410	0.013
	Post-Graduate	205	70.25	10.064		
	Doctorate	5	58.20	7.120		
Designation	Manager	196	69.66	10.773	0.802	0.109
	Executive	279	68.89	9.980		
Income (in Tk.)	Below 50000	267	69.14	10.324	1.743	0.157
	50000-75000	125	70.19	10.602		
	76000-100000	68	67.06	9.562		
	Above 100000	15	72.00	10.078		
Experience (in years)	Below 5	229	69.77	9.378	7.057	0.000
	05-10	204	69.94	11.047		
	11-15	34	61.65	10.051		
	Above 15	8	66.88	3.044		

Table 2 show that Age ( $F = 4.566$ ,  $p = .004 < 0.05$ ), Marital Status ( $t = .289$ ,  $p = .044 < 0.05$ ), Educational Qualifications ( $F = 4.410$ ,  $p = .013 < 0.05$ ) and Job Experience ( $F = 7.057$ ,  $p = .000 < 0.05$ ) revealed significant differences among the professionals in IT industry in terms of employee retention. Therefore, the null hypothesis is rejected. This study reveals that there is a significant difference regarding employee retention among the professionals in IT industry on account of demographic factors.. Whereas, Gender ( $t =$

1.332,  $p = .081 > 0.05$ ), Designation ( $t = .802, p = .109 > 0.05$ ) and Income ( $F = .1.743, p = .157 > 0.05$ ) revealed no significant differences among the professionals in IT industry in terms of employee retention. Therefore, null hypothesis is accepted. Employees in the age group of 25-35years had the highest mean score for the employee retention . Therefore, it can be deduced that in the age group of 25-35 years professionals in IT industry become more concerned about employee retention than the professionals in the other age group of 36-45 years, above 45 years and below 25 years.

**Table-3:Correlation between Organizational Culture and Employee Retention**

		Employee Retention	Organizational Culture
Employee Retention	Pearson Correlation	1	0.584***
	Sig.(2-tailed)	-	0.000
	N	475	475

\*\*Correlation is significant at the 0.01 level (2-tailed)

Table 3 results show that, the correlation between organizational culture and employee retention is 0.584 which indicates that there exists a positive relationship between organizational culture and employee retention at 0.01 level of significance. On the basis of above result the null hypothesis is rejected (i.e. There is no significant relationship between organizational culture and employee retention).

**Table 4: Correlation between the dimensions of Organizational Culture and Employee Retention**

	Y	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13
Y	1	0.57	0.47	0.60	0.64	0.56	0.46	0.61	.50	0.63	0.60	0.62	.65	.58
		0**	5**	7**	8**	1**	9**	2**	4**	5**	4**	5**	4**	9**

\*\*Correlation is significant at the 0.01 level (2-tailed)

Explanation: Y = Employee Retention, X1 = Detail-orientation, X2 = Innovativeness, X3 = Aggressiveness, X4 = Outcome-orientation, X5= Stability,X6 = People-orientation, X7 = Team-orientation, X8 = Social responsibility, X9 = Transparent Governance, X10 = Adaptive Ability, X11 = Open Communication, X12 = supportive environment, X13 = autonomy

Table 4 depicts the results of correlation analysis between the dimensions of Organizational Culture and Employee Retentionin the IT sector of Bangladesh. The results indicate that there is a positive and significant correlation between the dimensions of Organizational Culture and Employee Retention. The correlation between the dimension of organizational culture, supportive environment and employee retention( $r =$

.654,  $p < 0.01$ ) is high followed by Outcome-orientation ( $r = 0.648$ ,  $p < 0.01$ ), Transparent Governance ( $r = 0.635$ ,  $p < 0.01$ ), Open Communication ( $r = 0.625$ ,  $p < 0.01$ ), Team-orientation ( $r = 0.612$ ,  $p < 0.01$ ), Aggressiveness ( $r = 0.607$ ,  $p < 0.01$ ), Adaptive Ability ( $r = 0.604$ ,  $p < 0.01$ ), autonomy ( $r = .589$ ,  $p < 0.01$ ), Detail-orientation ( $r = 0.570$ ,  $p < 0.01$ ), Stability ( $r = 0.561$ ,  $p < 0.01$ ), Social responsibility ( $r = .504$ ,  $p < 0.01$ ), Innovativeness ( $r = 0.475$ ,  $p < 0.01$ ) and People-orientation ( $r = 0.469$ ,  $p < 0.01$ ).

## Discussion

Variation in employee retention at different organizations may be the resultant of organizational cultural values. These values affect that organization's human resource strategies, development and promotion procedures, and reward systems. It is important to realize the different needs and wants of employees to schedule an effective retention plan for today's employment market. If the retention strategies are not properly designed, all the efforts from the hiring of employees will ultimately become useless (Shoaib, Noor, Tirmizi & Bashir, 2009).

This study sought to examine not only the relationship between organizational culture and employee retention, but also to assess the influence of different dimensions of organizational culture on employee retention in the IT sector of Bangladesh. In this way this article tried to find out the solution of the research question whether it is a fantasy or reality that organizational culture facilitates employee retention in the Information Technology (IT) sector of Bangladesh.

The results showed that the culture of an organization has a positive effect on employee retention. The results also indicated positive and significant correlation among the dimensions of organizational culture and employee retention. This is in line with result of Delle and Kumasey (2013) who found that organizational culture, particularly one involving strong and appropriate dimensions, is capable of making employees stay with their current organization.

## Conclusion

Each and every employee have their own different norms, values and beliefs toward the organization where they work. Sometimes organizational culture differs from employee to employee due to this variation in norms and values among the employees. So whenever any employee join the organization, he/she should evaluate himself/ herself that whether they can adapt to that organizational culture or not. Organizational culture has a strong and deep impact on the performance of the employees. Loyalty and strategic commitment towards the organization among all employees, regardless of their job, can be enhanced through the organizational cultures.

The main contributions of this study to the literature on organizational culture and employee retention in the IT sector concerns though both organizational culture and employee retention are interrelated concepts, whether there are any differences in

organizational culture and employee retention on account of demographic factors and to what extent organizational culture itself and the different dimensions of organizational culture are correlated with employee retention in the IT sector of Bangladesh. Thus this study aimed to ensure that whether it is a reality that organizational culture facilitates employee retention or it is just a castle in the cloud. In this respect, we examined organizational culture as independent variable and employee retention as dependent variable in the IT sector of Bangladesh. For the analysis purpose, Detail-orientation, Innovativeness, Aggressiveness, Outcome-orientation, Stability, People-orientation, Team-orientation, Social responsibility, Transparent Governance, Adaptive Ability, Open Communication, supportive environment and autonomy were considered as the dimensions of an organizational culture.

This study having examined the relationship between organizational culture and employee retention in the IT sector of Bangladesh, established that there are significant differences in organizational culture and employee retention on account of demographic factors but a positive and significant relationship exists between organizational culture and employee retention. The dimensions of organizational culture, as stated above, are also positively correlated with employee retention. That means, Detail-orientation, Innovativeness, Aggressiveness, Outcome-orientation, Stability, People-orientation, Team-orientation, Social responsibility, Transparent Governance, Adaptive Ability, Open Communication, supportive environment and autonomy are essential to high retention of employees in the organization.

Therefore, it is obvious that organizational culture is playing an influential role on the way to retain employees in the Information Technology (IT) sector of Bangladesh. So, in response to the research question, whether organizational culture facilitates employee retention in the Information Technology (IT) sector of Bangladesh; based on the analysis of the collected primary data and secondary data we can say that organizational culture facilitates employee retention, both directly and indirectly, in a significant manner. If the organizational culture is positive, it will enhance employee's commitment, job satisfaction and performance; decrease employees' turnover, and automatically will increase the employee retention. A fit between employees' personality and company's culture is of critical importance to the successful retention. It is quite easy for an organization to get competitive advantage by driving the employees are on the right path through its culture.

### **Limitations and Future Directions:**

This article is concluded by presenting some limitations. An important limitation of this research is the veiled assumption that the ultimate findings of this study will work for all organizations. Therefore, the inclusion of different alternative strategy and practices in research designs will be an important addition.

The scales used for measuring various data sources are not based on previous academic literature. In further research, validated scales should therefore be employed. Moreover, a disadvantage of using secondary data is that not all the desired research concepts were covered in the data. Another limitation of this study is the sample size. Although the underlying dataset is large, the data were aggregated at the level of 30 selected software and ITES (IT Enabled Service) companies. This could be considered quite low. Nevertheless, future studies might attempt to replicate the findings using larger sample sizes. The study is conducted in Bangladesh, it would be interesting to replicate the study in other countries using different sectors.

Therefore, the Information Technology sector of Bangladesh should have a clear strategic direction and clear objectives to identify and improve the retention and performance of the employees in addition to ensuring strong organizational culture; which are consequently critical to the positive and successful transformation of the IT sector of this country.

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## Measuring Consumer Based Brand Equity: An Empirical Study on Coca-Cola in Bangladesh

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### Abstract:

*Building brand equity, or strong brands, is considered to be one of the key drivers of a business's success. In this article the author examines what constitutes brand equity in the beverage industry. The objective of the research was to analyze the sources and consequences of Coca Cola's Brand Equity in Bangladesh. The study has collected consumers' perception of brand equity from 138 respondents through a structured self-administered questionnaire. The revealed that the brand awareness, brand perceived quality, the brand image and the brand Loyalty have a significant positive influence on Coca-Cola's Brand Equity, whereas consumers' purchase intention and their willingness to pay a premium price for Coca-Cola brand are clear consequences of the brand value. This paper concludes that the key to effective brand equity measurement for Cola-cola lies on its ability to identify the determinants. Finally, the paper suggests some recommendations that can be used by the management to maximize the value of their brands.*

**Keywords:** *Brand Equity, Cola-Cola, Bangladesh*

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### Introduction:

Product plays an important role in creating growth opportunities and generating sales as well as profit for the companies. A product is intended to meet the needs of buyers in the product market, while a brand is the product offered by a specific company (Cravens and Piercy, 2009). Brand, representing the promise of consistency of product functions, benefits and services that are delivered from sellers to buyers, becomes one of the key factors for modern enterprises to exist and succeed. Strong brands have become an important part of the asset value of a company. It facilitates a more predictable income stream; it helps to increase cash flow by increasing market share, reducing promotional costs, and allowing premium pricing. The opportunity for using brand strength to build competitive advantage has encouraged the marketers to focus attention on the concept of brand equity.

Brand equity means the increment of marketing utility or output for a brand product. Brand with a strong positive brand equity, are generally brands with a highly loyal consumers and high market share. Brand equity is a key indicator of the state of the health of the brand. Brand-equity measurement is a single, critical measure of feedback from customers. This measurement will help in gauging the impact of the brand's own marketing-mix actions on customers and in providing feedback on whether the evolution

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of the brand's equity is on course. Brand equity provides value to the firms by enhancing efficiency and effectiveness of marketing programs, prices and profits, brand extensions, trade leverage, and competitive advantage (Yoo and Donthu, 2001). These benefits by measuring Brand Equity initiate many companies to follow Branding Strategy.

In Bangladesh, single study was conducted on brand equity framework in telecommunication services (Matin, S 2016). No doubt, there was lack of empirical study has been conducted to verify the brand equity dimension (i.e. brand awareness, brand loyalty, perceived quality and brand association) in beverages industry especially carbonated drink category in Bangladesh. In this study beverage Industry in Bangladesh are focused. In order to promote the brand management, the paper will use Aaker's (1991) brand equity model and applied it to measure the brand equity of Coca Cola in Bangladesh.

### **Overview of carbonated Soft Drinks in Beverage Industry in Bangladesh:**

There are various product types in beverages industries. Among the beverages category which is classified in AC Nielsen are soft drinks, non- carbonated drinks, fruit juices, mineral water, energy drink, and isotonic drinks. A soft drink is a drink that typically contains carbonated water, a sweetener, and a natural or artificial flavoring. There are different types of soft drinks are available now a day, such as, juice, mineral water, and carbonated soft drinks in Bangladesh. In a broader sense, soft drinks include colas, sparkling water, iced tea, lemonade, squash and fruit punch. Carbonated soft drinks are also known as soda, pop or soda pop, fizzy drinks or sometimes just coke in some places of this world. Carbonated beverage entered into Bangladesh market in the later part of 1980s. At that time, there were only a few companies in Bangladesh. But with the change of time and by western cultural influences it has become very popular in Bangladesh. Today, soft drinks both carbonated and non-carbonated have spread over in a variety of forms and brands all over the world. The soft drinks market in Bangladesh is more than a Tk. 8000 million (US \$114.28 million) market, which is expected to reach Tk.10,000 million (US \$142.86 million) soon, and company insiders believe that there is a huge prospect of this product for the market to expand. The market structure of the beverage industry in Bangladesh is oligopolistic with few firms dominating the market.

Coca Cola was the first carbonated soft drink introduced in the then undivided Pakistan in 1962. After 1971, the Coca Cola production unit in Bangladesh was given to the Freedom Fighter Welfare Trust. Initially, the production capacity was 65 bottles per minutes (bpm) before the handover. The capacity was dropped to 45 bpm later on. However, with new machinery installed, the capacity was increased to 250 bpm in 1985. In 1990, another plant with 500 bpm production capacity was added to this unit. The marketing territory of Coca-Cola Export Corporation whose brands are Coca Cola, Sprite and Fanta was divided into 2 segments. Tabani Beverage got the marketing territory of Dhaka, Rajshahi and Khulna divisions and part of Barishal division while Abdul Monem Limited got the marketing territory of Chittagong and Sylhet divisions and a part of Barishal division.

Apart from Coca-cola, there are Transcom Beverage Limited, Partex Beverage Ltd, Akij Food & Beverage Ltd, Agricultural Marketing Company Ltd (AMCL), Globe Soft Drinks Ltd. However, in terms of carbonated drinks, Coca Cola and Pepsi are the leading brands in most parts of the world including Bangladesh. According to the Nielson Report (2015) data, the beverage market is dominated by Transcom Beverage Limited with the 41.10% market share, Coca Cola is holding 28.40% and 11.50% market share is being held by Akij Food & Beverage Ltd. Pepsi, 7UP, Mirinda, Slice, Mountain dew, RC Cola, Virgin, Uro Cola, Coca Cola, Sprite, and Pran Cola are the major producers of soft drinks in Bangladesh. The other beverage producers are Akij Group (Speed, Wild Brew, Firm Fresh, SPA, Mojo, Clemon, Lemu, Fruitika), Agriculture Marketing Company Limited (Pran), Partex Beverage Limited (RC Cola, RC Lemon and Lychena) and Globe Soft Drinks Limited (Uro Cola, Uro Lemon).

At present Bangladesh has a very competitive market of beverage. Substitutes for soft drink beverage products are bottled water, sports drinks, coffee, and tea. Bottled water and sports drinks are increasingly popular with the trend to be a more health conscious consumer. There are progressively more varieties in the water and sports drinks that appeal to different consumers' tastes, but also appear healthier than soft drinks. In addition, coffee and tea are competitive substitutes because they provide caffeine. The consumers who purchase a lot of soft drinks may substitute coffee if they want to keep the caffeine and lose the sugar and carbonation. Specialty blend coffees are also becoming more popular with the increasing number of coffee shops that offer many different flavors to appeal to all consumer markets. It is also very cheap for consumers to switch to these substitutes making the threat of substitute products very strong. Competition is very fierce among existing firms. Firms can obtain a competitive advantage by the following any of the five ways: Changing prices, improving product differentiation, creating brand equity, creatively using channels of distribution and exploiting relationship with suppliers. Therefore healthy competition in food and beverage sector in Bangladesh leads to better product development and effective pricing for consumers to benefit.

#### **OBJECTIVE OF THE STUDY:**

- To measure the brand equity of carbonated soft drink brand such as Coca-Cola in Bangladesh.

#### **THEORITICAL FRAMEWORK:**

##### **Brand Equity conceptualization**

Brands are intangible assets that are vital for the organization. A product's brand is the name and symbol that identifies it and positions it over similar products (Shah, 2011). American Marketing Association (AMA) in 1960 stress the importance of the brand's logo and visual signifiers primarily as a basis for differentiation purpose, that is a name, term sign, symbol or design, or a combination of them, intended to identify the goods or

services of one seller and to differentiate them from those of competitors (Baker and Hart, 2008).

Building strong brands has become a marketing priority for many companies nowadays because it provides multiple advantages to establish and create an identity in the market place for a company, while being a key source of competitive advantage (Aaker, 1996). In order to measure the overall value of a determinate brand or product, marketing researchers and managers have begun to examine the concept of Brand Equity (Aaker, 1991; Keller, 1993), which refers to the tremendous value a brand brings to consumers and manufacturers. There is general agreement at the conceptual level as to the meaning of brand equity that can be summarized as:

“The financial value endowed by the brand to the product’ (Farquhar 1989). This definition of brand equity was based on the financial value, while the consumer perspective offers definitions (Aaker, 1991) based on consumer perceptions. Consumer based brand equity is defined as:

‘The differential effect of brand knowledge on consumer response to the marketing of a brand’ (Keller 1993).

“Brand equity is a set of assets and liabilities linked to a brand, its name, and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customer.” (Aaker 1991).

The present research follows the customer based brand equity model proposed by Aaker (1991). Hence, we will define Brand Equity as the set of assets and liabilities linked to the brand, which either increase or decrease the value provided by a product or service to the consumer.

### **The dimensions of Customer based Brand Equity:**

Aaker (1991) presented the brand equity as assets can be grouped into four dimensions: brand awareness, perceived quality, brand associations, and brand loyalty. In the purchasing process, consumers are not only concerned about the price or quality of a product or brand, but also other variables such as the brand awareness or brand image (Aaker, 1991, 1996). Additionally, this study aims to analyze two consequences of Brand Equity on consumer behavior. For that purpose, we have proposed the analysis of two other dimensions, such as the consumers’ purchase intention and their willingness to pay a premium price for the one specific soft drink brand.

First dimension of Brand Equity is brand awareness. It is related to consumer’s memory. It is the ability of the consumer to appeal to his memory when a brand name is evoked. Stored information form a set of interconnected nodes (trace in memory) about the brand (Rossiter & Percy, 1987; Keller, 1993). The more the presence of these nodes is strong, the more the brand has a high awareness. So the higher the level of awareness, the more dominant is the brand in the consumers’ mind, and that will increase the likelihood of a

brand to being considered in many purchase decisions (Aaker, 1996, Yoo et al., 2000). Brand awareness is argued as being a first and necessary, but not sufficient, step leading to trial and repeat purchases because the effect of awareness results at best in product curiosity (Konecnik and Gartner, 2007). Therefore, when increasing the level of awareness of a specific beer brand, it increases the probability that the brand will be in the consideration set in a purchase decision. Therefore, we propose the following hypothesis:

***H 1: Brand awareness is positively related to Brand Equity.***

Second dimension of Brand Equity is brand quality. A brand name may be used as a substitute for judgment of quality. Customers associate a brand with certain level of quality. Perceived high brand quality helps support a premium price, allowing a marketer to avoid severe price competition (Pride and Ferrell, 2012). Perceived quality provides value to customers by providing them with a reason to buy and by differentiating the brand from competing brands (Kayaman and Arasli, 2007). Favorable perceived brand quality help the brand extension and market penetration since the high regard for the brand will translate into high regard for the selected products. A high perceived quality occurs when potential consumers recognize the differentiation and superiority of a brand in relation with other competitor brands. Therefore, a high level of perceived quality in a specific beer brand would influence consumers' purchasing decision. Therefore, we propose the following hypothesis:

***H2. Perceived quality is positively related to brand equity***

Brand Equity is largely supported by brand associations –or brand image. Brand associations can be anything that connects the customer to the brand. It can include user imagery, product attributes, use situations, organizational associations, brand personality and symbols. The brand associations consist in multiple images, ideas, instances or facts that establish a solid network of brand knowledge (Yoo et al., 2000); and are formed as a result of the consumer's brand belief (Aaker, 1991). Therefore, consumers' favorable brand images and beliefs will influence and affect their purchasing behavior and the choice of a brand or even a product. So, consumers' positive and favorable images related to a specific beer brand would increase their beer Brand Equity. So, the following research hypothesis is proposed:

***H 3: Brand image is positively related to Brand Equity***

Finally, the equity of a brand is largely created by brand loyalty. Aaker (1996) and Keller (1993) suggest that the value or equity of a brand or product depends on the number of people who are purchasing it regularly. Moreover, brand loyalty has been found to have a direct and positive role in affecting Brand Equity (Atilgan et al., 2005). Therefore, we propose that beer brand loyalty enhances the Brand Equity. Therefore, we will propose the following hypothesis:

***H 4: Brand loyalty is positively related to Brand Equity.***

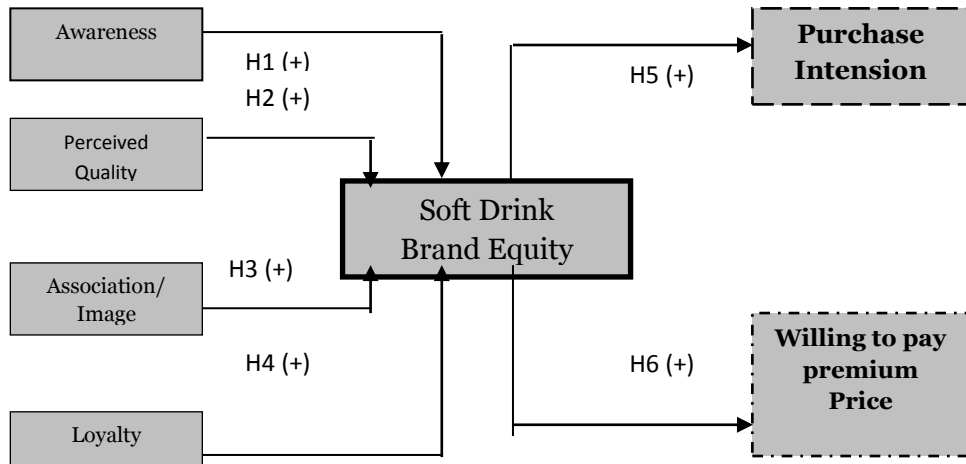
Consumer-based Brand Equity has been considered as a condition or prerequisite for the election or preference of a brand, which subsequently affects the purchase intention. Several studies point out the positive relationship between the dimensions of Brand Equity, brand preference and the purchase intention (Vakratsas and Ambler, 1999; Myers, 2003). Thus, we propose the following research hypothesis:

***H 5: Brand equity is positively related to brand purchase intention***

Additionally, Brand Equity is likely to influence the willingness that consumers have to pay a premium price for a product or brand (Arvidsson, 2006). Brand equity in commercial brand names influences consumer response to the increase in the price of the product, so that their response to a price increase is more inelastic (Keller, 2003; Hoeffler and Keller, 2003). Moreover, several authors have demonstrated that consumers are willing to pay a higher price for those brands that have positive brand associations, or otherwise provide with higher value (Erdem et al., 2002; Netemeyer et al., 2004). Therefore, we propose the following hypothesis:

***H 6: Brand equity has a positive effect on consumer willingness to pay a premium price.***

Figure 1: Conceptual Proposed Model

**Variables and measurement scales:**

The measurement of variables was carried out using a Likert-type scale of 5 points, with 1 being strongly disagree and 5 strongly agree. When measuring the dimensions of Brand Equity we considered a fully detailed review of the literature on this topic. First, in order



to measure brand awareness, we used five items proposed by Yoo et al. (2000) and by Netemeyer et al. (2004), which refer to the general knowledge the consumer has about a brand and to their ability to distinguish and recognize a brand compared to other competitive brands. In second place, in order to evaluate perceived quality, we used four items previously used by Pappu and et al. (2006), which assess the perceived quality without regarding the attributes specific to a particular product category. To assess brand associations, we used different items that were previously used by different researchers (Aaker, 1996; Pappu et al., 2005). For measuring brand loyalty, we use the scale proposed by Yoo et al., (2000), which analyzes whether the consumer is considered loyal to a particular brand and if the brand is its first option, even if he would not buy other brands when this brand is not available at the point of sale. In order to assess the overall Brand Equity we used the items proposed by Yoo et al. (2000), since they will incorporate the additional value of a product or a brand, because of their brand names. Finally, in order to evaluate consumers' willingness to pay a premium price for a brand and consumers' purchase intention, we used items proposed by Netemeyer et al. (2004). Table 1 shows measurement scales and indicators used, as well as latent variables to be analyzed.

**Table-1:** Measurement scales, variables and reflective indicators used for measuring Brand Equity

<b>Variables</b>	<b>Indicators</b>
<b>Awareness</b> Yoo et al. (2000), Netemeyer et al. (2004)	Aw1: I have heard about and I know Coca-Cola Aw2: I am able to recognize Coca-Cola easily from among other competitive brands
<b>Perceived Quality</b> Yoo et al. (2000); Pappu, Qvester and Cooksey (2005)	PQal1: Coca-Cola offers excellent quality products PQal2: Coca-Cola offers reliable and trustworthy products
<b>Associations/ Image</b> Lassar et al. (1995), Aaker (1996), Netemeyer et al. (1994)	Aso1: Within the beer market, I believe that Coca-Cola is a good purchase Aso2: Coca-Cola provides a high value in relation with the price you pay for it Aso3: Coca-Cola is interesting Aso4: The company that makes Coca-Cola has credibility
<b>Loyalty</b> Yoo et al. (2000)	Loy1: If I buy soft drink, Coca-Cola would be my first purchase option Loy2: I would not buy other brands of soft drink if Coca-Cola was available at the point of sale
<b>Overall Brand Equity</b> Yoo et al. (2000)	Be1: It makes sense to buy Coca-Cola instead of others available in the market Be2: Although there were other brands of soft drink as good

	as Coca-Cola, I would rather buy the Coca-Cola
<b>Purchase Intention</b> Netemeyer et al. (2004)	Int1: I would buy Coca-Cola Int2 Definitely, I would consider buying Coca-Cola Int3: I am likely to buy Coca-Cola
<b>Willingness to pay a premium price</b> Netemeyer et al. (2004)	Pre1: I am willing to pay a higher price for Coca-Cola than other brands of soft drink Pre2 I am willing to pay much more for Coca-Cola than other brands of soft drink.

**Research Methodology:**

The primary data was obtained by administering survey method, guided by questionnaire to the customers. The respondents had been selected conveniently regardless their age, gender, occupation or income level. The questionnaires had been distributed to the target sample from 1st January 2018 to 31<sup>st</sup> March 2018. Respondents have to fill up the self-administrated questionnaire form. The respondent was asked about their basic demographic (age, gender, educational level). Prior to that, a pilot study by 50 respondents was conducted to assess the validity and reliability of the questionnaire. The two types of questions were asked in the questionnaire such as categorical and Multiple-choice questions. The Secondary data was collected through articles, journals, magazines, newspapers and internet etc. The study is restricted to two products such as Coco Cola. The summary table is as follows:

Research design	Both Descriptive & Causal Research
Research Method:	Survey Method
Research Instrument:	Survey Questionnaire
Sample size:	138 ( 8 times of the main variables used in questionnaire)
Sample Are:	DhakaCity
Sampling Method:	Non-probability/ convenience sampling
Statistical Package:	SPSS, Version 22
Analytical too:	Frequency table, Descriptive statistics & Multiple regression

**Sample Description:**

The author incorporated some questions concerning socio-demographical variables. A sample description is summarized in Table 2.

Variables		Frequency	Percentage
Frequency of Consumption	Daily Consumption	35	25.4
	Several times per week	67	48.6
	Once per week	14	10.1
	Occasionally	22	15.9

	Total	138	100%
Age	Less than 20	10	7.2
	20yrs – 22yrs	57	41.3
	23yrs – 25yrs	41	29.7
	26yrs – 28yrs+	30	21.8
	Total	138	100%
Gender	Male	96	69.6
	Female	42	30.4
	Total	138	100%
Education Level	Graduate Level	92	66.7
	Post Graduate Level	46	33.3
	Total	138	100%

### LIMITATIONS OF THE STUDY:

- The area of study is limited to Dhaka city only. Hence the results may not be true for other geographical areas.
- Quality of information highly dependent on the knowledge of the respondents.

### Data Collection & Reliability Of The Study:

Data were collected from 138 samples using self-administered questionnaire (17-item instrument). We made a reliability analysis of the data collected from the respondents. The main purpose for the reliability analysis of the data is to determine the trustworthiness of the data. The reliability analysis is measured by the consistency of the survey data where the indicators are the inter-item correlation and reliability coefficient Cronbach's Alpha. The reliability co-efficient Cronbach's Alpha for the 17-item (See Appendix A) is 0.843 which is over the acceptable limit 0.70. As we can see the reliability statistics table, all items seem to be contributing reasonably well to the scale's reliability.

**Table:3** Reliability of the Scale:

Attributes	Cronbach Alfa	Items
All factors	0.843	17
F1: Awareness	0.404	02
F2: Perceived Quality	0.628	02
F3: Associations/ Image	0.522	04
F4:Loyalty	0.753	02
F5: Overall Brand Equity	0.555	02
F6: Purchase Intention	0.687	03
F7: Willingness to pay a premium price	0.741	02

### Analysis And Findings

Table 4 presents the mean & standard deviations of 17 items of the five-point scale. The following table describes the perceptions of the respondents regarding the items of the brand equity, purchase intention and willing to pay premium price.

**Table 4:** Item Statistics (Sorted by Mean)

Rank	Item	Mean	Standard Deviation
1	I have heard about and I know Cola-Cola.	4.5145	.51596
2	I am able to recognize Cola-Cola easily from among other competitive brands.	4.3768	.56932
3	Within the beverage market, I believe that Cola-Cola is a good purchase.	4.1594	.78533
4	Cola-Cola offers excellent quality.	4.0362	.83193
5	Cola-Cola is interesting.	4.0290	.78249
6	Cola-Cola is reliable and trustworthy.	3.9275	.86824
7	I would buy Cola-Cola soft drink.	3.9275	.84264
8	If I buy soft drink, Cola-Cola would be my first purchase option.	3.8841	1.14032
9	I am likely to buy Cola-Cola soft drink.	3.7681	.96122
10	Cola-Cola provides a high value in relation with the price you pay for it.	3.7464	.92066
11	It makes sense to buy Cola-Cola instead of others available in the market.	3.7246	.89417
12	The company that makes Cola-Cola has credibility.	3.6957	.94837
13	Definitively, I would consider buying Brand Cola-Cola.	3.6739	1.14728
14	Although there were other brands of soft drink as good as Cola-Cola , I would rather buy the Cola-Cola.	3.6377	1.05292
15	I would not buy other brands of soft drink if Cola-Cola was available at the point of sale.	3.5580	1.22634
16	I am willing to pay a higher price for Cola-Cola than other brands of soft drink.	3.2029	1.12152
17	I am willing to pay much more for Cola-Cola soft drink than brands of soft drink.	2.3913	.86653

**Regression Analysis:**

The following hypotheses cited in the conceptual framework will be tested by applying regression analysis.

*H 1: Brand awareness is positively related to Brand Equity.*

*H2. Perceived quality is positively related to brand equity*

*H 3 : Brand image is positively related to Brand Equity*

*H 4 : Brand loyalty is positively related to Brand Equity.*

*H 5: Brand equity is positively related to brand purchase intention*

*H 6 : Brand equity has a positive effect on consumer willingness to pay a premium price.*

When Table 5 is examined, it shows that all models are statistically significant since for model 1  $p < .10$  & for model 2,3,4,5,6  $p < .05$ . So, Substantial correlation between predictor variables and dependent variable exists in the models. Therefore, we need to accept all hypotheses. However, when the significance of predictors (explanatory variables) is examined in Table 4, only one predictor from each model is found to be statistically significant.

**Table: 5-** Summary of Model Findings Testing Hypothesis

	<b>R Square</b>	<b>Durbin-Watson</b>	<b>F</b>	<b>Sig. (p)</b>
Model 1 (H1) Brand Awareness → Brand Equity a. Predictors: (Constant) Aw1, Aw2 b. Dependent Variable: Brand Equity	.034	1.996	2.407	.094*
Model 2 (H2) Perceived Quality→ Brand Equity a. Predictors: (Constant)PQal1, PQal2 b. Dependent Variable: Brand Equity	.199	2.051	16.737	.000**
Model 3 (H3) Associations / Image → Brand Equity a. Predictors: (Constant) Asso1, Asso2,Asso3,Asso4 b. Dependent Variable: Brand Equity	.155	1.879	6.080	.000**
Model 4 (H4) Loyalty → Brand Equity a. Predictors: (Constant) Loy1, Loy2 b. Dependent Variable: Brand Equity	.397	2.195	44.354	.000**

Model 5 (H5) Brand Equity → Purchase Intension a. Predictors: (Constant) OBE (overall Brand Equity)1 b. Dependent Variable: Purchase Intension	.343	1.944	71.137	.000**
Model 6 (H5) Brand Equity → Willing to pay premium price a. Predictors: (Constant) OBE (overall Brand Equity)1 b. Dependent Variable: Willing to pay premium price	.143	2.041	22.644	.000**

\* Significant at  $p < .10$ , \*\* significant at  $p < .05$

### **Testing Problems with Regression Analysis:**

Autocorrelation' is the basic problem of regression analysis. When tables for six models are considered together, the same generalized evaluation can be made as follows:

The Durbin-Watson test is a widely used method of testing for autocorrelation. The Durbin-Watson Statistic is used to test for the presence of serial correlation among the residuals. Unfortunately, SPSS does not print the probability for accepting or rejecting the presence of serial correlation, though probability tables for the statistic are available in other texts. The value of the Durbin-Watson statistic ranges from 0 to 4. As a general rule of thumb, the residuals are uncorrelated if the Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value of 4 indicates strong negative correlation (Durbin and Watson, 1971). Durbin-Watson should be between 1.5 and 2.5 indicating the values are independent (Statistica). As shown in Table 4 Durbin-Watson values belonging to six models are between 1.5 and 2.5 showing the absence of auto correlation.

### **Discussion & Conclusions**

The author's objective was to analyze the sources and consequences of Coca Cola's Brand Equity in Bangladesh market. The major finding is that as previously hypothesized all relationships of Brand Equity and its sources and consequences are significantly positive. It is concluded that brand awareness, perceived quality, brand association and brand loyalty have a significant impact on brand equity in Coca-Cola in Bangladesh. In addition, brand loyalty and brand association/ image had the most significant impact on brand equity. So, as far as the present empirical research is concerned, focused in the Coca Cola in Bangladesh, the brand awareness, brand perceived quality, the brand image and brand Loyalty have a significant positive influence on Coca-Cola's Brand Equity,

whereas consumers' purchase intention and their willingness to pay a premium price for Coca-Cola brand are clear consequences of the brand value.

Building strong brands has become a marketing priority for many companies. Brand equity is crucial for a heavily branded product category, like soft drinks, within a highly competitive and brand conscious market, such as Bangladesh. Though brand equity has received continuous attention from researchers and marketing managers, there are few studies based on empirical data on the soft drink industry in Bangladesh.

This study was conducted to measure the brand equity of carbonated soft drink brand such as Coca-Cola in Bangladesh. The study intended to explore the much unexplained area of brand equity and its relationship to purchase intention & willing to pay premium price. The findings support that the sources of Coca-Cola's brand equity are brand awareness, perceived quality, brand associations and loyalty that show a significant and positive influence on Coca-Cola's Brand Equity. Among these dimensions, the Coca-Cola's brand loyalty means the higher contribution. So, the mentioned variables should be considered in the management of Coca-Cola, in order to maintain or improve consumer-based Brand Equity. The finding also shows that the consequence of brand equity has huge impact on consumer behavior. It was revealed that the better the brand equity the more the consumer will show the purchase intention and willing to pay premium price.

It is imperative for Coca-Cola to emphasize on creating, enhancing and managing Brand Equity. Coca-Cola must formulate marketing strategies in order to strengthen brand loyalty and brand Image, as the most important sources of Brand Equity. Coca-Cola needs to put special effort on the creation and development of beer brand loyalty through Communications and relationship marketing. So, if Coca-Cola is able to build brand equity, this will lead to a sustainable competitive advantage.

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## **GREEN HRM PRACTICES AND ENVIRONMENTAL AWARENESS AMONG EMPLOYEES: AN EMPIRICAL STUDY ON READY-MADE GARMENTS INDUSTRY IN BANGLADESH**

**Mohammed Jaynal Abedin\***

### **Abstract:**

*Environmental degradation has been considered as a major focus in industrial sectors. The degradation and the destruction of natural resources through the industrial processes has created a major problem in the environment. In the modern era of globalization, Bangladesh has been striving towards industrial reform. This reform focuses on green practices in the organizations. As a vibrant industry, RMG industry in Bangladesh has been experiencing different green initiatives to create environmental awareness among employees. Green HRM has been adopted by different companies in RMG industry to create and establish environmental awareness among their employees. The present paper aims to analyze levels of the green HRM practices that create environmental awareness among employees from demographic perspectives. The paper also tries to test statistically whether the dimensions of green HRM are significant or not in creating environmental awareness. The results provide the message that green HRM practices make the employees able to develop their awareness on environmental issues of the organizations. One sample t-test result also reveals that all dimensions of green HRM are statistically significant in developing this awareness. This paper may open the avenue for future research to align green HRM on other organizational issues.*

**Key Words:** *Green HRM, Environmental Awareness, RMG Industry*

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### **Introduction:**

Carbon emissions and greenhouse gasses have been increasing at a frightening rate. This situation needs to be limited, and it gives the clear message to the world to take and uphold some initiatives. Corporate world has started taking significant initiatives to promote environment friendly practices (Ruchismita, Shitij, Pallavi and Vivek, 2015). The acute awareness of the impact of our day-to-day activities on the environment and the depleting natural resources has compelled, not just, individuals to go green but also business organizations (Patel, 2014). The situation is critical. The globally growing concern for environment compels business organizations to move towards sustainable operations and formulate green policies. The international standards for environment protection and preservation urge businesses to devise environment-friendly policies and practices.

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Everyone, from customers to employees to investors becomes more and more environment-conscious (Opatha, and Anton, 2014).

The global issues on environmental awareness have led to a considerable change in the management philosophy of the 21st century (Prasad, 2013). Some of the early environmental initiatives and movements have played a significant role in the change of management philosophy. Green initiatives have been such well-known movement around the world. Organizations are under pressure to employ their people and processes for successful green implementation.

Currently, a good number of organizations follow Green Human Resource Management practices globally (Arulrajah, Opatha, and Nawaratne; 2016). Adoption of Green HRM practices by the business and other organizations around the world contribute significantly to create environmental awareness among employees. It has immense focus academically and practically. In the organizational studies after 1990s, Green HRM has been emerged as a field of research in considering global environmental issues (Renwick, Redman and Maguire, 2013).

Adoption of Green HRM Practices covers conservation of natural environment, minimization of environmental pollution and generation of gardens and looking-like natural places (Ahuja, 2015). Green HRM includes environment-friendly HR initiatives which result greater efficiencies, lower cost and better employee engagement. These initiatives help the organization to reduce employee carbon. Moreover, organizations considered Green HRM as part of strategies for reducing carbon foot print of each employee (Renwick, Redman and Maguire, 2013).

Ji, Huang, Liu, Zhu, & Cai, (2012)revealed that there is also a great deal of empirical research which highlights the impact of Green HRM practices on Environmental awareness in the organizations using a number of different indicators. Now-a-days, the organizations incorporate green or environmental objectives to overall strategy of the organization aiming to meet green management issues. Many of the researches focused to promote the ideology that is important for proper alignment of human resource management principles with objectives of green management in an organization. It is identified that the greater the strength of Green Human Resource Management Policies the greater is the intensity of adoption of environment management systems and policies by the different companies which result the environmental awareness among employees (Liu, 2010).

### **Problem Statement:**

Several recent reports revealed that RMG industry of Bangladesh, a \$28 billion industry, has taken different green initiatives in creating environmental awareness among employees. There are 67 eco-friendly green garments factories in Bangladesh which is the highest number in the world ([www.bgmea.com.bd](http://www.bgmea.com.bd); [www.rmgbd.net](http://www.rmgbd.net); [www.dhakatribune.com](http://www.dhakatribune.com)). In association with U.S. Green Building Council (USGBC),

Bangladesh Garment Manufacturers and Exporters Association (BGMEA) launched the initiatives to award the garments factories adopting different green practices which result in creating environmental awareness among employees. Proper green policy and practices on HRM practices adapt the employees in maintaining environmental commitment of the organizations. Employees are different from one another due to their demographic attributes such as gender, age, marital status, educational level and experience. Without proper implementation of the policy, simply having a green HRM policy does not guarantee the organizations in creating proper environmental awareness among the employees. At the same time, partial practices of Green HRM fail to create this awareness in an optimum level. Since employees are demographically different, it is a challenge to make them aligned in maintaining environmental aspects of the garments factories in Bangladesh. The problem would be more crucial when the employees are treated differently from different viewpoints. At the same time, it can be added that the environmental initiatives and efforts of the garments factories in Bangladesh will not be fruitful if the employees are not informed in every level of green HRM practices. Problems in adopting proper Green HRM practices may lead the garment factories in facing unexpected situations regarding their environmental commitment.

### **Research Questions:**

Keeping in mind the above problematic situation, the following research questions need to be investigated whether the employees in garments factories of Bangladesh are being properly treated according to the green HRM practices in creating their environmental awareness:

- ❖ To what extent, does the practice of Green HRM in RMG industry in Bangladesh affect the employees from all demographic attributes?
- ❖ Do all the dimensions of Green HRM contribute significantly in creating employees' environmental awareness?

### **Literature Review:**

Green Human Resource Management, as the emerging concept, brings a great importance for both organizations and employees. Now-a-days, organizations are well concerned with the Green HRM concept that has been put forward to assist them to keep the environment green (PopliPooja, 2014). All functional areas of HRM are concerned with Green HRM. That is why, the paper focuses on environmental connectivity with all the functional areas of Green HRM. The functional areas are Green Job Analysis, Green HR Planning, Green Recruitment and Selection, Green Induction, Green Training and Development, Green Performance management System, Green Compensation Management System, Green Health and Safety Management, Green Employee Discipline Management, Green Employee Relations.

### **Green Job Analysis and Environmental Awareness**

As Job Analysis produces job descriptions and job specifications, environmental protection related task, duties and responsibilities can be added with job descriptions of the incumbent (Jabbour, Santos & Nagano, 2010). In support with this statement, Jackson, Renwick, Jabbour and Camen (2011) revealed in their study that at least one duty regarding the environmental protection has been included in some companies. Jackson, Renwick, Jabbour and Camen (2011) also emphasized the environmental competencies of the incumbent according to the requirements of the organizations as far as possible. Beard and Rees (2000), Daily and Huang (2001), Govindarajulu and Daily (2004), and Jabbour, Santos, and Nagano (2010) focused on concrete list of knowledge, skills and attitude levels of employees for performing environmental duties. In their separate study, Jabbour, Santos, and Nagano (2010) identified that some specific companies used cross-functional teams as part of Job design. Multi-disciplinary workflows required this job design for environmental protection.

### **Green Human Resource Planning**

Renwick, Redman and Maguire (2013) identified the requirements of environmental issues in HR planning which created a positive impact in the company in determining HR demand and HR supply. In supporting this statement, Mandip (2012) also highlighted that green HR planning creates the scope of new jobs for implementing corporate environmental initiative. He also added that the persons who are to be planned to perform this critical jobs should be competent enough and effective. Other researchers (Santos and Nagano, 2010) also pointed out that the availability of sufficient employees in this manner may lead the environmental issues accordingly. Effective environmental HR planning may assist the organizations whether they need external environmental consultants to perform substantial tasks (Beard and Rees, 2000).

### **Green Recruitment and Selection**

Mandip (2012) in his study revealed that green recruitment process creates the scope for the incumbent to know the job circular via website. As a result, the interested applicants can apply easily through website. This recruiting process is a paper fee recruitment process with a minimal environmental impact. Deserving candidates are attracted and are invited to apply through online mediums. In selecting the suitable candidate against vacant positions, telephone or video based interviews are conducted to minimize any travel-related environmental impact. This green selection approach also emphasizes the criteria regarding environmental competencies of the applicants to ensure whether they possess the competencies or not (Grolleau et al. 2012). Recruitment of employees who are 'Green aware' becomes part of the interview schedule. Induction for new recruits is seen to be needed to ensure employee understand and approach their corporate environmental culture in a serious way (Harris & Tregidga, 2012).

### **Green Training and Development**

In creating awareness among employees about green procedures and policies, training programs play vital roles (Opatha, 2013). Perron et al., (2006) examined the significance of environmental training in creating employees' awareness on concerned environmental issues. Before placing the employees, environmental issues are briefed effectively. Perron et al., (2006) concluded that effective orientation and training can significantly create awareness among the employees. The department needs to conduct a specific environmental training need assessment for designing a specific training in environmental management. HR manager can buildup green teams just by creating general awareness in environmental management. Daily, Bishop & Steiner (2007) identified that the level of required environmental competency of employees was directly dependent on environmental training. The study concluded that in order to manage effective green HR practices it is vital to ensure effective contents of training programs with organizational objectives.

### **Green Performance Management System**

Performance measures, standards and indicators for appraising environmental performance of employees are critical in nature. Organizations need the availability and uses of relevant data on environmental performance. Environmental performance should be associated with job descriptions mentioning specific green goals. HR information system can be introduced to monitor the performance (Haden, Oyler, & Humphreys, 2009). HR manager should design green performance standards and green behavior indicators as yardsticks in performance appraisal of employees at all levels. There should be green targets, goals and responsibilities for managers and achievement of managers in accomplishing green objectives of the enterprise.

### **Green Compensation Management System**

In their study, Jabbour, Santos & Nagano, (2010) identified that compensation management system is aligned with green performance appraisal system. The employees are given special incentives according to the level of environmental performance. Some other incentives should be included in compensation package like environmental awareness incentive, acquiring designated skills and competencies in green performance over the long-term, desirable behavior in green performance and incentive on accomplishment of green objectives on the job etc. Peterson (2004) showed the relationship between incentives for environmental performance and employees' motivation in following the principles of green management. Ramus & Steger (2000) identified the significance of non-financial incentives such as better supervisory support and better acknowledgment in terms of praise letters which may enhance the employees' commitment towards upholding environmental policies.

### **Green Health and Safety Management**

Green HRM includes the traditional health and safety management and some other issues of environmental management of an organization. That is why, nowadays many organizations are redesigning post of 'health and safety manager' and 'health, safety and environmental manager' (Scarborough, 2003). Green workplace is defined as a workplace that is environmentally sensitive, resource efficient and socially responsible. The organizations have continually focused to establish various environmental related initiatives to reduce employee stress and occupational disease caused by hazardous work environment (Jabbour, Santos & Nagano, 2010).

### **Green Employee Discipline Management**

Jackson, Renwick, Jabbour and Camen (2011) highlighted explicitly that corporate environmental management requires green discipline management which ensures green employee behavior in the workplace. Organizations may need green discipline management policies practices to achieve the environmental management objectives. Renwick et al, (2008) indicates in supporting the green employee discipline that organizations set policies for setting appropriate penalties for noncompliance on environmental issues.

### **Green Employee Relations**

Phillips (2007) suggested specific green employee relations which may include employee involvement and participation in green suggestion schemes and problem-solving circles, staff independence to form and experiment with green ideas. In addition to these factors, the researcher also highlighted the employee involvement and participation into maintenance, employee help-line for guidance in green matters, tailoring green employee involvement schemes to company standards, increasing line/supervisory support behaviors in environmental management, union-management negotiating to reach green workplace and enhancing employee commitment. Supervisory support is also significant issue in ensuring better employee-management relations. Moreover, as Haden, Oyler, & Humphreys, (2009) stated that appropriate training of union representatives in respect of environmental management aspects, encouraging employees to use green forms of transport, set-up of low carbon chiefs to increase action in environmental management, and introducing green whistle-blowing and help-lines.

The following lists of variables have been identified through the thorough literature review on the green HRM and employees' environmental awareness:

**Table 1: Operational definitions of variables of Green HRM from the viewpoint of different dimensions**

<b>Dimensions</b>	<b>Attributes/ Variables</b>	<b>Operational Definitions</b>	<b>Sources</b>
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Job Analysis	1. Inclusion of environmental issues in Job Responsibilities.	Relevant environmental aspects, issues and responsibilities are enlisted as part of Job Responsibilities.	Jabbour, Santos & Nagano, (2010), Jackson, Renwick, Jabbour and Camen, (2011)
	2. Inclusion of Environmental competencies in Job Specialization.	Appropriate levels of knowledge, skills, and attitude or competency levels of right person are added with Job Specification.	Jackson, Renwick, Jabbour and Camen (2011), Beard and Rees (2000), Daily and Huang (2001), Govindarajulu and Daily (2004), and Jabbour, Santos, and Nagano (2010)
HR Planning	3. Environmental capability of current employees	Assessment of competency level of current employees whether they have environmental awareness or not.	Renwick, Redman and Maguire (2013), Mandip (2012)
	4. Availability of capable employees	Having sufficient employees who have deep understanding on environmental issues.	Santos and Nagano (2010)
Recruiting	5. Paper-free recruitment	Practices of online recruitment of employees.	Mandip (2012)
	6. Effectiveness of Online application	Evaluation of online recruitment practices.	Mandip (2012)
Selecting	7. Effectiveness of Telephone based interview	Analysis of the effectiveness of Telephone based interview whether this practice is functional or not.	Grolleau et al. (2012)
	8. Corporate Environmental Culture	Covering the interview process with sufficient tests on corporate environmental culture.	Harris & Tregidga (2012)
Training and Development	9. Briefing Environmental Issues	Analysis of the practices whether the newly appointed employees are oriented effectively on environmental issues.	Perron et al. (2006)
	10. Green Training Contents	Assessment of training contents whether the contents cover the	Opatha (2013), Perron et al. (2006)

		environmental aspects systematically.	
Performance Management	11. Green Performance Targets	Assessment of green performance targets whether employees are clear or not about environmental performance.	Haden, Oyler, & Humphreys (2009)
	12. Maintaining Environmental Standards	Analysis of environmental performance standards of employees according to the statement in job responsibility.	Haden, Oyler, & Humphreys (2009)
Compensation Management	13. Environmental Incentives	Compensation practices providing sufficient incentives for environmental performance.	Jabbour, Santos & Nagano, (2010), Peterson (2004)
	14. Non-financial Incentives	Special recognition from supervisor for the contribution of employees in case of environmental issues.	Ramus & Steger (2000)
Health and Safety	15. Environmentally Sensitive Workplace	Having environmental policy which directs the employees to be concerned with environmental issues.	Scarbrough, 2003), (Jabbour, Santos & Nagano (2010)
	16. Safe Workplace	Maintaining the organizational practices which are compliant with safety standards.	Scarbrough, 2003), (Jabbour, Santos & Nagano (2010)
Employee Discipline	17. Maintaining Employee Discipline	Maintaining employee discipline on environmental issues in the workplace rigorously.	Jackson, Renwick, Jabbour and Camen (2011), Renwick et al. (2008)
	18. Punishable non-compliance Issues	Non-compliance on environmental issues is punishable in the organization.	Jackson, Renwick, Jabbour and Camen (2011), Renwick et al. (2008)
Employee Relation	19. Employee Commitment Level	Encouraging employees in such a way so that commitment of employees towards the organization is enhanced.	Phillips (2007), Haden, Oyler, & Humphreys (2009)

20. Supervisor's  
Encouragement

As a result of  
encouragement of  
supervisor, the motivation  
of employees to ensure of  
maintaining a green  
workplace.

Phillips (2007), Haden,  
Oyler, & Humphreys  
(2009)

### **Objectives of the Study:**

The overall objective of this study is to analyze the various dimensions of green HRM practices in the Selected Garments factories in Bangladesh which create environmental awareness among their employees.

More specifically, this study concentrates on the following objectives:

- ❖ To find out the level of green HRM practices in the selected garments factories in Bangladesh that creates environmental awareness among employees from the demographic perspectives.
- ❖ To ascertain the significance level of the dimensions of green HRM practices in creating environmental awareness.
- ❖ To determine the strength of association between various dimensions of green HRM and level of environmental awareness among employees.
- ❖ To recommend the management of RMG industry in Bangladesh to improve the effectiveness of green HRM practices for creating environmental awareness among their employees as part of the environmental commitment.

### **Research Methodology:**

The methodology followed in this study is described in the following sections:

#### **Research Design**

The current study is based on descriptive research that provides the detailed analysis of the attributes of Green Human Resource Management practices in Ready-Made Garments Industries in Bangladesh and the level of awareness among employees regarding environmental issues.

#### **Data Sources and Collection**

This paper covers both primary and secondary data. The sources of secondary data were books, journals, and industry reports. All independent variables have been collected from these secondary sources. A structured questionnaire has been prepared based on the variables collected from these secondary sources. This structured questionnaire was administered to know about the level of environmental awareness among the employees of RMG Industry in Bangladesh.

### **Identification and Measurement of Variables**

The study reveals 20 attributes or variables through the rigorous survey of relevant literature. These variables have been linked with creating environmental awareness of employees of RMG Industry in Bangladesh. The basis of selecting these variables is backed by the linkage among the research problem, research objectives and output of relevant literature survey conducted by the author of this paper.

In this research, non-comparative itemized rating scale has been used. Each item presents an issue of green HRM practices, and the respondents were asked to rate their views of being aware by the factors in a Likert Scale of 1 to 5 where 1 denotes strongly disagree, 2 denotes moderately disagree, 3 refers to neutral, 4 indicates moderately agree and 5 denotes strongly agree.

### **Questionnaire Development and Pre-Testing**

The questionnaire used for the survey is structured and consists of two sections which cover demographic information in first section and statements of indicating the dimensions of Green HRM in second section. The questionnaire has been pretested on some of the respondents initially. Final survey process has been completed based on the positive feedback from the initial small-scale survey. The questionnaire was translated into Bangla for easy understanding of the respondents.

### **Sampling Techniques**

The target population for the research is the employees who are working in various companies in RMG industry of Bangladesh. Non-probability purposive sampling procedure has been used for surveying the employees. As the non-probability sampling method, purposive sampling is effective when the respondents are chosen by the judgment of the researcher. Researchers may apply their judgmental capacity to obtain a representative sample which may help the researcher to save time and money (Black, 2010). The study was conducted during September to November, 2018 in Ashulia, Dhaka and Narayanganj. Since the study covered total 20 attributes and 5 demographic factors, a total of 250 employees have been surveyed. Sample Size should be such that there are at least 5 observations for each construct in the questionnaire (Kervin, 1992).

From each location, 10 organizations have been selected initially. Because of location facility, 150 respondents have been requested from Ashulia area to fill-up the questionnaire and remaining 100 respondents were from Narayanganj. On an average, 15 respondents were selected from each organization in Ashulia, Dhaka and 10 respondents were selected accordingly from 10 organizations in Narayanganj. So, it can be summed up that 60% respondents were from Ashulia, Dhaka and remaining 40% respondents were from Narayanganj.

### Data Analysis:

In the present study, the effect of Green HRM was investigated. There are 20 dimensions of Green HRM which have been extracted from the literature review. These dimensions have been analyzed through Cross Tabulation from the viewpoints of 5 demographic attributes such as gender, age, marital status, educational level and experience level of respondents. Finally, one sample t-test has been adopted to test the significance level of these dimensions of Green HRM. All the data have been analyzed through using SPSS 22.0v.

### Hypothesis of the Study:

The following hypothesis was designed to supplement the research questions and research objectives of the study:

*Null Hypothesis (Ho):* There are no strong effects of Green HRM practices in creating employees' environmental awareness in RMG industry in Bangladesh.

*Alternative Hypothesis (Ha):* There are strong effects of Green HRM practices in creating employees' environmental awareness in RMG industry in Bangladesh.

### Results and Discussion:

**Table 2: Demographic profile of respondents**

		Frequency	Percent
Gender	Male	82	32.8
	Female	168	67.2
	Total	250	100%
Age	16-25 Years	36	14.4
	26-35 Years	122	48.8
	36-45 Years	80	32.0
	46-55 Years	12	4.8
	Total	250	100%
Marital Status	Married (M)	223	89.2
	Unmarried (U)	27	10.8
	Total	250	100%
Education	Primary (P)	95	38.0
	Secondary (S)	112	44.8

	Higher Secondary (HS)	31	12.4
	Bachelor Degree (BD)	12	4.8
	Total	250	100%
Experience	1- 5 Years	40	16.0
	6- 10 Years	77	30.8
	11- 15 Years	113	45.2
	16-20 Years	20	8.0
	Total	250	100%

Table 2 demonstrated that the demographic profile was covered from 5 perspectives such as gender, age, marital status, education and experience. These 5 demographic perspectives have been analyzed on total 250 respondents. The number of female respondents (67.2%) is more than double of male respondents (32.8%). The age group of the total respondents depicted that the maximum level (48.8%) of respondents were from 26-35 years and only 4.8% of the respondents were from 46-55 years. From the viewpoint of marital status, surprisingly 89.2% of the respondents were married. The present paper analyzed the educational level of respondents from 4 categories such as primary, secondary, higher secondary and bachelor degree. Total 82.8% respondents were from primary background (38%) and secondary background (44.8%). Maximum 20 years of experience level was identified in the present study where 76% of total respondents were from 6-10 years (30.8%) and 11-15 years (45.2%).

### **Green HRM practices and environmental awareness among employees from ‘gender’ perspective:**

Table A-1 demonstrated the findings of employees’ environmental awareness from the ‘gender’ perspective of respondents on 20 dimensions of green HRM that have been extracted from thorough literature review. As part of analysis and design of green jobs, both male and female respondents showed almost equal response (48.8%) and (50.6%), and as they moderately agreed on Inclusion of environmental Job responsibilities. After considering the responses in strongly agree level of male and female respondents (37.8%) and (31.5%), it was clear that both male and female respondents agreed (almost 80% of moderately agree and strongly agree) on the first issue of Green HRM. The summations of both agree levels on Inclusion of environmental competencies, responses of both male and female respondents are almost 100%. In case of Green HR planning, both male and female respondents showed more than (90%) responses on both agree levels (moderately agree and strongly agree). It was clear from the responses of both male (more than 70% on both agree levels) and female respondents (more than 60%) on both agree levels) that the organizations highlighted the importance of availability of environmentally capable employees. Female respondents

showed better responses (more than 60% as moderately and strongly agree) than male respondents (not more than 60% of both agree levels) on paper-free recruitment. More than 40% responses came from both male and female respondents as they moderately agreed on the effectiveness of online application. Simultaneously, more than 80% (both moderately and strongly agree) responses have been generated from both male and female respondents on the effectiveness of telephone interview. They have also showed that their companies paid attention on corporate environmental culture rigorously and the response rate is more than 70% (both agree levels) from both male and female respondents. Responses on briefing environmental issues in training program showed that male respondents are clearer than female respondents. But, they were almost equally agreed on the contents coverage of green training programs. Male respondents showed better responses (more than 80%) than female respondents' responses (more than 70%) on green performance targets. Though the responses on maintaining environmental standards were scattered, the respondents showed positive responses (more than 60% as moderately and strongly agree). Responses on both environmental incentives (financial and non-financial) are not same. It was clear from the responses that the companies paid least attention on financial incentives, but appreciated employees for their environmental performance. Both male and female respondents showed positive responses (more than 80% as moderately and strongly agree) on environmental sensitivity and security of the workplace. Though the employees are maintaining environmental discipline nicely (more than 80% as moderately and strongly), the responses on punishable non-compliance issues are more than 70% (as both moderately and strongly agree levels). Finally, both male and female respondents showed equal importance (almost 80% as moderately and strongly agree) on employees' commitment levels on environmental issues and supervisors' encouragement towards their subordinates in implementing environmental commitment of the organizations.

### **Green HRM practices and environmental awareness among employees from 'age' perspective:**

Table A-2 also demonstrated the results of the effects of green HRM practices on environmental awareness of employees from 'age' perspective. The cross-tabulation results show that the majority of respondents from all age group such as 16-25, 26-35, 36-45 and 46-55 years agreed that environmental responsibilities and competencies of employees are considered in their jobs. Age group 26-35 years agreed on the green recruitment practices of their organizations. Simultaneously, they were selected for the jobs after considering their effective competency levels. The opinion of first 3 age groups stated that their organizations are implementing green training programs that have a positive impact on their environmental awareness. The result shows a difference between 'having green performance targets' and 'maintaining environmental standards'. There is a deviation in maintaining environmental standards. All age groups showed a negative practice which highlighted that they were not given proper incentives in maintaining environmental standards.

### **Green HRM practices and environmental awareness among employees from ‘marital status’ perspective:**

Table A-3 demonstrated the results of the effects of green HRM practices on environmental awareness of employees from ‘marital status’ perspective. The result shows a common picture from both sides that the organizations have enough scope on maintaining environmental standards and in providing environmental incentives to performer. Remaining dimensions of green HRM shows a very positive picture of practicing green HRM in creating employees’ environmental awareness.

### **Green HRM practices and environmental awareness among employees from ‘Educational Status’ perspective:**

Table A-4 illustrated the results of the effects of green HRM practices on environmental awareness of employees from ‘education’ perspective. The result also shows that the respondents having Higher Secondary and Bachelor Degree showed a common picture in showing very positive responses on the dimensions of green HRM practices in their respective organizations except the very negative responses on the financial incentives for environmental performer.

### **Green HRM practices and environmental awareness among employees from ‘Experience’ perspective:**

Table A-5 also illustrated the results of the effects of green HRM practices on environmental awareness of employees from ‘experience’ perspective. One thing the result shows that in creating environmental awareness among employees, the practice of green HRM has more or less similar effects on employees irrespective of their level of experience. Even their feedback on whether their organizations are providing sufficient financial incentives or not is somewhat similar irrespective of different experience levels. But the responses are somewhat scattered among the 5 options of Likert Scale. That is the improvement areas for the organizations.

### **Significance level:**

**Table 3: Significance level of dimensions of Green HRM practices:**

<b>Variables</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>t-value</b>	<b>p-value</b>
1. Inclusion of environmental issues in Job Responsibilities.	3.9760	<b>1.07520</b>	58.469	.000
2. Inclusion of Environmental competencies in Job Specialization.	4.3080	.55712	122.265	.000
3. Environmental capability of current employees	4.2200	.59076	112.946	.000
4. Availability of capable employees	3.8360	<b>1.18992</b>	52.347	.000



5. Paper-free recruitment	3.5800	<b>1.18992</b>	47.676	.000
6. Effectiveness of Online application	3.5800	<b>1.00381</b>	56.390	.000
7. Effectiveness of Telephone based interview	4.1000	.82262	78.805	.000
8. Corporate Environmental Culture	4.0840	<b>1.12160</b>	57.573	.000
9. Briefing Environmental Issues	3.6840	<b>1.32027</b>	44.119	.000
10. Green Training Contents	4.0800	<b>1.02656</b>	62.842	.000
11. Green Performance Targets	3.9240	<b>1.05197</b>	58.979	.000
12. Maintaining Environmental Standards	3.6640	<b>1.36181</b>	42.541	.000
13. Environmental Incentives	2.4200	<b>1.14229</b>	33.497	.000
14. Non-financial Incentives	3.8880	<b>1.05065</b>	58.511	.000
15. Environmentally Sensitive Workplace	4.2440	.90540	74.115	.000
16. Safe Workplace	4.4200	.69681	100.295	.000
17. Maintaining Employee Discipline	4.3400	.84097	81.598	.000
18. Punishable non-compliance Issues	4.0960	<b>1.07116</b>	60.461	.000
19. Employee Commitment Level	4.1320	<b>1.08780</b>	60.059	.000
20. Supervisor's Encouragement	4.3040	.80883	84.137	.000

\*95% Confidence Interval

Table 3 illustrated the significance levels of 20 different dimensions of green HRM in creating employees' environmental awareness. As this study hypothesized on the effects of Green HRM practices in creating environmental awareness among employees, all dimensions of green HRM have been tested through one sample t-test. Since the p-values of all dimensions are less than .05 (at 95% confidence Interval), it can be summed up that the null hypothesis is rejected. That is to say, the result shows that there are strong effects of Green HRM practices in creating environmental awareness among employees in RMG industry. The result also reveals that standard deviation of 7 dimensions such as Inclusion of Environmental competencies in Job Specialization, Environmental capability of current employees, Effectiveness of Telephone based interview, Environmentally Sensitive Workplace, Safe Workplace, Maintaining Employee Discipline and Supervisor's Encouragement are very close to the respective mean score. The gap between Mean value and Standard Deviation of remaining 13 dimensions is more than 1.0 in the 5 point Likert Scale. So the organizations have the scope to further the green HRM practices rigorously so that the gap can be minimized.

### **Managerial Implications, Limitations and Future Research**

This paper studies the levels of green HRM practices in RMG industry in Bangladesh in creating environmental awareness of employees from their demographic attributes.

Gender perspective shows more or less equal picture on the employees' environmental awareness. Since 'age' perspective shows a deviation on maintaining environmental standards in comparing with having green performance targets, the management can take proper corrective measures. Since employees of all demographic perspectives showed that they were not given proper incentives in maintaining environmental standards, the management may introduce proper financial incentives in this regard. From the viewpoint of 'marital status' perspective, it is revealed that the management can take proper policy corrections and implementation in maintaining environmental standards and providing sufficient incentives to the deserving performer. This present paper is limited to only few organizations in RMG industry in Bangladesh. It is difficult to sort out the sampling frame for the employees in this industry. That is why, convenience sampling was considered for this study. The findings of this paper may further future research from different viewpoints to test whether green HRM practices are good enough in creating environmental awareness among employees and other implications for effectiveness and efficiency of organizations.

### **Conclusion**

The objectives of this paper was to determine whether green HRM has the effects on employees of RMG industry in Bangladesh in creating their environmental awareness from specific demographic perspectives and to determine the significance levels of the dimensions of green HRM practices. The result shows very significant picture that practicing green HRM in the organizations made the organizations able to create environmental awareness among employees. Implications of green HRM have been analyzed from 5 demographic perspectives. Positivity and negativity of the results from these 5 demographic perspectives indicate that employees are equally concerned about the practices of green HRM. That is why, they show positivity on 19 dimensions of green HRM and negativity on only financial incentives for environmental performers. One sample t-test also reveals that all the dimensions of green HRM are statistically significant in creating environmental awareness among employees.

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## Appendices:

**Table A-1:** Green HRM practices and environmental awareness among employees from 'gender' perspective:

Variables	Gender	Responses					Total
		1	2	3	4	5	
1. Inclusion of environmental issues in Job Responsibilities.	Male	1 (1.2%)	10 (12.2%)	--	<b>40 (48.8%)</b>	31 (37.8%)	82 (100%)
	Female	7 (4.2%)	23 (13.7%)	--	<b>85 (50.6%)</b>	53 (31.5%)	168 (100%)
2. Inclusion of Environmental competencies in Job Specialization.	Male	--	1 (1.2%)	--	<b>40 (48.8%)</b>	<b>41 (50%)</b>	82 (100%)
	Female	3 (1.8%)	--	--	<b>121 (72.0%)</b>	44 (26.2%)	168 (100%)
3. Environmental capability of current employees	Male	--	--	8 (9.8%)	<b>41 (50%)</b>	<b>33 (40.2%)</b>	82 (100%)
	Female	--	2 (1.2%)	8 (4.8%)	<b>116 (69%)</b>	42 (25%)	168 (100%)
4. Availability of capable employees	Male	7 (8.5%)	4 (4.9%)	9 (11%)	<b>35 (42.7%)</b>	27 (32.9%)	82 (100%)
	Female	8 (4.8%)	18 (10.7%)	26 (15.5%)	60 (35.7%)	56 (33.3%)	168 (100%)
5. Paper-free recruitment	Male	6 (7.3%)	14 (17.1%)	15 (18.3%)	26 (31.7%)	21 (25.6%)	82 (100%)
	Female	9 (5.4%)	25 (14.9%)	27 (16.1%)	66 (39.3%)	41 (24.4%)	168 (100%)
6. Effectiveness of Online application	Male	3 (3.7%)	6 (7.3%)	14 (17.1%)	<b>39 (47.6%)</b>	20 (24.4%)	82 (100%)
	Female	10 (6%)	12 (7.1%)	54 (32.1%)	74 (44%)	18 (10.7%)	168 (100%)
7. Effectiveness of Telephone based interview	Male	1 (1.2%)	2 (2.4%)	11 (13.4%)	<b>35 (42.7%)</b>	<b>33 (40.2%)</b>	82 (100%)
	Female	3 (1.8%)	3 (1.8%)	23 (13.7%)	<b>91 (54.2%)</b>	48 (28.6%)	168 (100%)
8. Corporate Environmental Culture	Male	6 (7.3%)	5 (6.1%)	8 (9.8%)	21 (25.6%)	<b>42 (51.2%)</b>	82 (100%)
	Female	8 (4.8%)	7 (4.2%)	19 (11.3%)	62 (36.9%)	<b>72 (42.9%)</b>	168 (100%)
9. Briefing Environmental Issues	Male	3 (3.7%)	16 (19.5%)	--	<b>34 (41.5%)</b>	29 (35.4%)	82 (100%)
	Female	18 (10.7%)	30 (17.9%)	5 (3%)	63 (37.5%)	52 (31%)	168 (100%)
10. Green Training Contents	Male	1 (1.2%)	9 (11%)	4 (4.9%)	<b>36 (43.9%)</b>	32 (39%)	82 (100%)
	Female	9 (5.4%)	6 (3.6%)	13 (7.7%)	<b>75 (44.6%)</b>	65 (38.7%)	168 (100%)
11. Green Performance Targets	Male	--	3 (3.7%)	8 (9.8%)	<b>34 (41.5%)</b>	<b>37 (45.1%)</b>	82 (100%)

	Female	10 (6%)	17 (10.1%)	20 (11.9%)	<b>79 (47%)</b>	42 (25%)	168 (100%)
12. Maintaining Environmental Standards	Male	7 (8.5%)	11 (13.4%)	8 (9.8%)	24 (29.3%)	32 (39%)	82 (100%)
	Female	20 (11.9%)	24 (14.3%)	12 (7.1%)	57 (33.9%)	55 (32.7%)	168 (100%)
13. Environmental Incentives	Male	<b>17 (20.7%)</b>	<b>32 (39%)</b>	9 (11%)	20 (24.4%)	4 (4.9%)	82 (100%)
	Female	<b>42 (25%)</b>	<b>59 (35.1%)</b>	36 (21.4%)	26 (15.5%)	5 (3%)	168 (100%)
14. Non-financial Incentives	Male	2 (2.4%)	13 (15.9%)	5 (6.1%)	<b>34 (41.5%)</b>	28 (34.1)	82 (100%)
	Female	4 (2.4%)	22 (13.1%)	7 (4.2%)	<b>91 (54.2%)</b>	44 (26.2%)	168 (100%)
15. Environmentally Sensitive Workplace	Male	--	1 (1.2%)	2 (2.4%)	<b>39 (47.6%)</b>	<b>40 (48.8%)</b>	82 (100%)
	Female	2 (1.2%)	18 (10.7%)	8 (4.8%)	65 (38.7%)	<b>75 (44.6%)</b>	168 (100%)
16. Safe Workplace	Male	--	--	--	<b>37 (45.1%)</b>	<b>45 (54.9%)</b>	82 (100%)
	Female	--	7 (4.2%)	9 (5.4%)	<b>69 (41.1%)</b>	<b>83 (49.4%)</b>	168 (100%)
17. Maintaining Employee Discipline	Male	--	4 (4.9%)	4 (4.9%)	<b>34 (41.5%)</b>	<b>40 (48.8%)</b>	82 (100%)
	Female	2 (1.2%)	7 (4.2%)	11 (6.5%)	60 (35.7%)	<b>88 (52.4%)</b>	168 (100%)
18. Punishable non-compliance Issues	Male	2 (2.4%)	4 (4.9%)	9 (11%)	31 (37.8%)	<b>36 (43.9%)</b>	82 (100%)
	Female	6 (3.6%)	15 (8.9%)	18 (10.7%)	52 (31%)	<b>77 (45.8%)</b>	168 (100%)
19. Employee Commitment Level	Male	--	10 (12.2%)	3 (3.7%)	30 (36.6%)	<b>39 (47.6%)</b>	82 (100%)
	Female	7 (4.2%)	14 (8.3%)	16 (9.5%)	49 (29.2%)	<b>82 (48.8%)</b>	168 (100%)
20. Supervisor's Encouragement	Male	2 (2.4%)	2 (2.4%)	3 (3.7%)	<b>35 (42.7%)</b>	<b>40 (48.8%)</b>	82 (100%)
	Female	1 (0.6%)	7 (4.2%)	7 (4.2%)	<b>80 (47.6%)</b>	<b>73 (43.5%)</b>	168 (100%)

**Table A-2: Green HRM practices and environmental awareness among employees from ‘age’ perspective:**

Variables	Age (Years)	Responses					Total
		1	2	3	4	5	
1. Inclusion of environmental issues in Job	16-25	3 (8.3%)	7 (19.4%)	--	<b>18 (50%)</b>	8 (22.2%)	36 (100%)
	26-35	3 (2.5%)	22 (18%)	--	<b>54 (44.3%)</b>	43 (35.2%)	122 (100%)



Responsibilities.	36-45	2 (2.5%)	4 (5%)	--	<b>44 (55%)</b>	30 (37.5%)	80 (100%)
	46-55	--	--	--	<b>9 (75%)</b>	3 (25%)	12 (100%)
2. Inclusion of Environmental competencies in Job Specialization.	16-25	--	--	--	<b>24 (66.7%)</b>	12 (33.3%)	36 (100%)
	26-35	--	3 (2.5%)	--	<b>78 (63.9%)</b>	41 (33.6%)	122 (100%)
	36-45	--	1 (1.3%)	--	<b>53 (66.3%)</b>	26 (32.5%)	80 (100%)
	46-55	--	--	--	<b>6 (50%)</b>	<b>6 (50%)</b>	12 (100%)
3. Environmental capability of current employees	16-25	--	--	2 (5.6%)	<b>24 (66.7%)</b>	10 (27.8%)	36 (100%)
	26-35	--	1 (0.8%)	11 (9%)	<b>84 (68.9%)</b>	26 (21.3%)	122 (100%)
	36-45	--	1 (1.3%)	2 (2.5%)	<b>45 (56.3%)</b>	32 (40%)	80 (100%)
	46-55	---	--	1 (8.3%)	4 (33.3%)	7 (58.3%)	12 (100%)
4. Availability of capable employees	16-25	1 (2.8%)	3 (8.3%)	7 (19.4%)	13 (36.1%)	12 (33.3%)	36 (100%)
	26-35	9 (7.4%)	10 (8.2%)	14 (11.5%)	<b>49 (40.2%)</b>	40 (32.8%)	122 (100%)
	36-45	3 (3.8%)	9 (11.3%)	10 (12.5%)	<b>31 (38.8%)</b>	27 (33.8%)	80 (100%)
	46-55	2 (16.7%)	--	4 (33.3%)	2 (16.7%)	4 (33.3%)	12 (100%)
5. Paper-free recruitment	16-25	--	2 (5.6%)	9 (25%)	<b>18 (50%)</b>	7 (19.4%)	36 (100%)
	<b>26-35</b>	6 (4.9%)	16 (13.1%)	25 (20.5%)	<b>51 (41.8%)</b>	24 (19.7%)	122 (100%)
	36-45	7 (8.8%)	18 (22.5)	7 (8.8%)	19 (23.8%)	29 (36.3%)	80 (100%)
	46-55	2 (16.7%)	3 (25%)	1 (8.3%)	4 (33.3%)	2 (16.7%)	12 (100%)
6. Effectiveness of Online application	16-25	8 (22.2%)	4 (11.1%)	8 (22.2%)	11 (30.6%)	5 (13.9%)	36 (100%)
	<b>26-35</b>	2 (1.6%)	4 (3.3%)	47 (38.5%)	<b>63 (51.6%)</b>	6 (4.9%)	122 (100%)
	<b>36-45</b>	2 (2.5%)	10 (12.5%)	9 (11.3%)	<b>33 (41.3%)</b>	26 (32.5%)	80 (100%)
	46-55	1 (8.3%)	--	4 (33.3%)	<b>6 (50%)</b>	1 (8.3%)	12 (100%)
7. Effectiveness of Telephone based interview	16-25	1 (2.8%)	2 (5.6%)	8 (22.2%)	<b>21 (58.3%)</b>	4 (11.1%)	36 (100%)
	26-35	2 (1.6%)	3 (2.5%)	19 (15.6%)	<b>58 (47.5%)</b>	<b>40 (32.8%)</b>	122 (100%)
	36-45	--	--	7 (8.8%)	<b>41 (51.3%)</b>	<b>32 (40%)</b>	80 (100%)
	46-55	1 (8.3%)	--	--	<b>6 (50%)</b>	<b>5 (41.7%)</b>	12 (100%)
8. Corporate Environmental Culture	16-25	1 (2.8%)	2 (5.6%)	5 (13.9%)	14 (38.9%)	14 (38.9%)	36 (100%)
	26-35	7 (5.7%)	5 (4.1%)	14 (11.5%)	<b>41 (33.6%)</b>	<b>55 (45.1%)</b>	122 (100%)

	36-45	4 (5%)	3 (3.8%)	7 (8.8%)	<b>25</b> <b>(31.3%)</b>	<b>41</b> <b>(51.3%)</b>	80 (100%)
	46-55	2 (16.7%)	2 (16.7%)	1 (8.3%)	3 (25%)	4 (33.3%)	12 (100%)
9. Briefing	16-25	7 (19.4%)	9 (25%)	--	12 (33.3%)	8 (22.2%)	36 (100%)
Environmental	26-35	9 (7.4%)	26 (21.3%)	2 (1.6%)	43 (35.2%)	42 (34.4%)	122 (100%)
Issues	36-45	5 (6.3%)	9 (11.3%)	3 (3.8%)	<b>36 (45%)</b>	27 (33.8%)	80(100%)
	46-55	--	2 (16.7%)	--	<b>6 (50%)</b>	4 (33.3%)	12 (100%)
10. Green Training	16-25	5 (13.9%)	1 (2.8%)	1 (2.8%)	<b>17</b> <b>(47.2%)</b>	12 (33.3%)	36 (100%)
Contents	26-35	4 (3.3%)	6 (4.9%)	9 (7.4%)	<b>50(41%)</b>	<b>53</b> <b>(43.4%)</b>	122 (100%)
	36-45	1 (1.3%)	8 (10%)	4 (5%)	<b>41</b> <b>(51.3%)</b>	<b>26</b> <b>(32.5%)</b>	80(100%)
	46-55	--	--	3 (25%)	3 (25%)	6 (50%)	12 (100%)
11. Green	16-25	--	1 (2.8%)	3 (8.3%)	<b>21</b> <b>(58.3%)</b>	11 (30.6%)	36 (100%)
Performance Targets	26-35	4 (3.3%)	12 (9.8%)	17 (13.9%)	<b>55</b> <b>(45.1%)</b>	<b>34</b> <b>(27.9%)</b>	122 (100%)
	36-45	5 (6.3%)	6 (7.5%)	7 (8.8%)	<b>30</b> <b>(37.5%)</b>	32 (40%)	80 (100%)
	46-55	1 (8.3%)	1 (8.3%)	1 (8.3%)	<b>7 (58.3%)</b>	2 (16.7%)	12 (100%)
12. Maintaining	16-25	9 (25%)	6 (16.7%)	3 (8.3%)	9 (25%)	9 (25%)	36 (100%)
Environmental	26-35	15 (12.3%)	17 (13.9%)	10 (8.2%)	43 (35.2%)	37 (30.3%)	122 (100%)
Standards	36-45	2 (2.5%)	9 (11.3%)	5 (6.3%)	26 (32.5%)	<b>38</b> <b>(47.5%)</b>	80 (100%)
	46-55	1 (8.3%)	3 (25%)	2 (16.7%)	3 (25%)	3 (25%)	12 (100%)
13. Environmental	16-25	<b>8 (22.2%)</b>	<b>9 (25%)</b>	<b>7 (19.4%)</b>	11 (30.6%)	1 (2.8%)	36 (100%)
Incentives	26-35	<b>36(29.5%)</b>	<b>38</b> <b>(31.1%)</b>	<b>26 (21.3%)</b>	19 (15.6%)	3 (2.5%)	122 (100%)
	36-45	<b>13(16.3%)</b>	<b>38</b> <b>(47.5%)</b>	11 (13.8%)	14 (17.5%)	4 (5%)	80 (100%)
	46-55	2 (16.5%)	<b>6 (50%)</b>	1 (8.3%)	2 (16.7%)	1 (8.3%)	12 (100%)
14. Non-financial	16-25	3 (8.3%)	5 (13.9%)	--	<b>20</b> <b>(55.6%)</b>	8 (22.2%)	36 (100%)
Incentives	26-35	1 (0.8%)	20 (16.4%)	11 (9%)	<b>58</b> <b>(47.5%)</b>	32 (26.2%)	122 (100%)
	36-45	2 (2.5%)	7 (8.8%)	1 (1.3%)	<b>43</b> <b>(53.8%)</b>	27 (33.8%)	80 (100%)
	46-55	--	3 (25%)	--	4 (33.3%)	<b>5 (41.7%)</b>	12 (100%)
15. Environmentally	16-25	--	4 (11.1%)	3 (8.3%)	<b>16</b> <b>(44.4%)</b>	13 (36.1%)	36 (100%)
Sensitive Workplace	26-35	1 (0.8%)	13 (10.7%)	5 (4.1%)	<b>50 (41%)</b>	<b>53</b> <b>(43.4%)</b>	122 (100%)
	36-45	--	1 (1.3%)	1 (1.3%)	<b>37</b>	<b>41</b>	80 (100%)

					(46.3%)	(51.3%)	
16. Safe Workplace	46-55	1 (8.3%)	1 (8.3%)	1 (8.3%)	1 (8.3%)	<b>8 (66.7%)</b>	12 (100%)
	16-25	--	2 (5.6%)	2 (5.6%)	<b>16 (44.4%)</b>	<b>16 (44.4%)</b>	36 (100%)
	26-35	--	2 (1.6%)	7 (5.7%)	48 (39.3%)	<b>65 (53.3%)</b>	122 (100%)
	36-45	--	2 (2.5%)	--	<b>37 (46.3%)</b>	<b>41 (51.3%)</b>	80 (100%)
17. Maintaining Employee Discipline	46-55	--	1 (8.3%)	--	<b>5 (41.7%)</b>	<b>6 (50%)</b>	12 (100%)
	16-25	--	--	2 (5.6%)	<b>16 (44.4%)</b>	<b>18 (50%)</b>	36 (100%)
	26-35	--	5 (4.1%)	4 (3.3%)	<b>50 (41%)</b>	<b>63 (51.6%)</b>	122 (100%)
	36-45	1 (1.3%)	5 (6.3%)	7 (8.8%)	24 (30%)	<b>43 (53.8)</b>	80 (100%)
18. Punishable non-compliance Issues	46-55	1 (8.3%)	1 (8.3%)	2 (16.7%)	4 (33.3%)	4 (33.3%)	12 (100%)
	16-25	--	6 (16.7%)	3 (8.3%)	14 (38.9%)	13 (36.1%)	36 (100%)
	26-35	4 (3.3%)	7 (5.7%)	13 (10.7%)	40 (32.8%)	<b>58 (47.5%)</b>	122 (100%)
	36-45	3 (3.8%)	5 (6.3%)	11 (13.8%)	25 (31.3%)	<b>36 (45%)</b>	80 (100%)
19. Employee Commitment Level	46-55	1 (8.3%)	1 (8.3%)	--	4 (33.3%)	<b>6 (50%)</b>	12 (100%)
	16-25	--	2 (5.6%)	3 (8.3%)	<b>16 (44.4%)</b>	<b>15 (41.7%)</b>	36 (100%)
	26-35	3 (2.5%)	8 (6.6%)	12 (9.8%)	<b>36 (29.5%)</b>	<b>63 (51.6%)</b>	122 (100%)
	36-45	3 (3.8%)	11 (13.8%)	4 (5%)	<b>24 (30%)</b>	<b>38 (47.5%)</b>	80 (100%)
20. Supervisor's Encouragement	46-55	1 (8.3%)	3 (25%)	--	3 (25%)	<b>5 (41.7%)</b>	12 (100%)
	16-25	--	1 (2.8%)	1 (2.8%)	<b>15 (41.7%)</b>	<b>19 (52.8%)</b>	36 (100%)
	26-35	1 (0.8%)	8 (6.6%)	6 (4.9%)	<b>51 (41.8%)</b>	<b>56 (45.9%)</b>	122 (100%)
	36-45	1 (1.3%)	--	3 (3.8%)	<b>43 (53.8%)</b>	<b>33 (41.3%)</b>	80 (100%)
	46-55	1 (8.3%)	--	--	<b>6 (50%)</b>	<b>5 (41.7%)</b>	12 (100%)

**Table A-3:** Green HRM practices and environmental awareness among employees from ‘marital status’ perspective:

Variables	Marital Status	Responses					Total
		1	2	3	4	5	
1. Inclusion of environmental issues in Job Responsibilities.	Married	6 (2.7%)	27 (12.1%)	--	<b>112 (50.2%)</b>	78 (35%)	223 (100%)
	Unmarried	2 (7.4%)	6 (22.2%)	--	<b>13</b>	6 (22.2%)	27 (100%)

					<b>(48.1%)</b>		
2. Inclusion of Environmental competencies in Job Specialization.	Married		4 (1.8%)	--	<b>143 (64.1%)</b>	76(34.1%)	223 (100%)
	Unmarried	--	--	--	<b>18 (66.7%)</b>	9 (33.3%)	27 (100%)
3. Environmental capability of current employees	Married	--	2 (0.9%)	14 (6.3%)	<b>138 (61.9%)</b>	<b>69(30.9%)</b>	223 (100%)
	Unmarried	--	--	2	<b>19 (70.4)</b>	6 (22.2%)	27 (100%)
4. Availability of capable employees	Married	14 (6.3%)	20 (9%)	29 (13%)	<b>83 (37.2%)</b>	<b>77(34.5%)</b>	223 (100%)
	Unmarried	1 (3.7%)	2 (7.4%)	6 (22.2%)	<b>12 (44.4%)</b>	6 (22.2%)	27 (100%)
5. Paper-free recruitment	Married	15 (6.7%)	37 (16.6%)	33(14.8%)	<b>79 (35.4%)</b>	59(26.5%)	223 (100%)
	Unmarried	--	2 (7.4%)	9 (33.3%)	13 (48.1%)	3 (11.1%)	27 (100%)
6. Effectiveness of Online application	Married	6 (2.7%)	15 (6.7%)	62(27.8%)	<b>104 (46.6%)</b>	36(16.1%)	223 (100%)
	Unmarried	7 (25.9%)	3 (11.1%)	6 (22.2%)	9 (33.3%)	2 (7.4%)	27 (100%)
7. Effectiveness of Telephone based interview	Married	3 (1.3%)	3 (1.3%)	27(12.1%)	<b>113 (50.7%)</b>	77(34.5%)	223 (100%)
	Unmarried	1 (3.7%)	2 (7.4%)	7 (25.9%)	13 (48.1%)	4 (14.8%)	27 (100%)
8. Corporate Environmental Culture	Married	14(6.3%)	10 (4.5%)	22 (9.9%)	<b>71 (31.8%)</b>	<b>106 (47.6%)</b>	223 (100%)
	Unmarried	--	2 (7.4%)	5 (18.5%)	<b>12 (44.4%)</b>	8 (29.6%)	27 (100%)
9. Briefing Environmental Issues	Married	16 (7.2%)	40 (17.9%)	5 (2.2%)	88 (39.5%)	74 (33.2%)	223 (100%)
	Unmarried	5 (18.5%)	6 (22.2%)	--	9 (33.3%)	7 (25.9%)	27 (100%)
10. Green Training Contents	Married	6 (2.7%)	14 (6.3%)	16 (7.2%)	<b>97 (43.5%)</b>	<b>90 (40.4%)</b>	223 (100%)
	Unmarried	4 (14.8%)	1 (3.7%)	1 (3.7%)	<b>14 (51.9%)</b>	7 (25.9%)	27 (100%)
11. Green Performance Targets	Married	10 (4.5%)	19 (8.5%)	28(12.6%)	<b>96 (43%)</b>	70 (31.4%)	223 (100%)
	Unmarried	--	1 (3.7%)	--	<b>17 (63%)</b>	9 (33.3%)	27 (100%)
12. Maintaining Environmental Standards	Married	23(10.3%)	30(13.5%)	17(7.6%)	75(33.6%)	78(35%)	223 (100%)
	Unmarried	4 (14.8%)	5 (18.5%)	3 (11.1%)	6 (22.2%)	9 (33.3%)	27 (100%)
13. Environmental Incentives	Married	<b>53(23.8%)</b>	<b>83(37.2%)</b>	40(17.9%)	39(17.5)	8 (3.6)	223 (100%)
	Unmarried	<b>6 (22.25)</b>	<b>8 (29.6%)</b>	5 (18.5%)	7 (25.9%)	1 (3.7%)	27 (100%)
14. Non-financial Incentives	Married	5 (2.2%)	32 (14.3%)	12 (5.4%)	<b>110 (49.3%)</b>	64(28.7%)	223 (100%)
	Unmarried	1 (3.7%)	3 (11.1%)	--	<b>15 (55.6%)</b>	8 (29.6%)	27 (100%)

15. Environmentally Sensitive Workplace	Married	2 (0.9%)	17 (7.6%)	7 (3.1%)	<b>90 (40.4%)</b>	<b>107(48%)</b>	223 (100%)
	Unmarried	--	2 (7.4%)	3 (11.1%)	<b>14 (51.9%)</b>	8 (29.6%)	27 (100%)
16. Safe Workplace	Married	--	5 (2.2%)	8 (3.6%)	<b>92 (41.3%)</b>	<b>118(52.9%)</b>	223 (100%)
	Unmarried	--	2 (7.4%)	1 (3.7%)	<b>14 (51.9%)</b>	10 (37%)	27 (100%)
17. Maintaining Employee Discipline	Married	2 (0.9%)	11 (4.9%)	14 (6.3%)	82 (36.8%)	<b>114(51.1%)</b>	223 (100%)
	Unmarried	--	--	1 (3.7%)	<b>12 (44.4%)</b>	<b>14 (51.9%)</b>	27 (100%)
18. Punishable non-compliance Issues	Married	8 (3.6%)	15 (6.7%)	24(10.8%)	73 (32.7%)	<b>103(46.2%)</b>	223 (100%)
	Unmarried	--	4 (14.8%)	3 (11.1%)	10 (37%)	10 (37%)	27 (100%)
19. Employee Commitment Level	Married	7 (3.1%)	23 (10.3%)	17 (7.6%)	66(29.6%)	<b>110(49.3%)</b>	223 (100%)
	Unmarried	--	1 (3.7%)	2 (7.4%)	<b>13 (48.1%)</b>	<b>11 (40.7%)</b>	27 (100%)
20. Supervisor's Encouragement	Married	3 (1.3%)	8 (3.6%)	10 (4.5%)	<b>104(46.6%)</b>	<b>98(43.9%)</b>	223 (100%)
	Unmarried	--	1 (3.7%)	--	<b>11 (40.7%)</b>	<b>15 (55.6%)</b>	27 (100%)

**Table A-4:** Green HRM practices and environmental awareness among employees from ‘Educational Status’ perspective:

Variables	Education	Responses					Total
		1	2	3	4	5	
1. Inclusion of environmental issues in Job Responsibilities.	P	5(5.3%)	10(10.5%)	--	<b>47(49.5%)</b>	33(34.7%)	95(100%)
	S	1(0.9%)	19(17%)	--	<b>50(44.6%)</b>	42(37.5%)	112(100%)
	HS	1(3.2%)	2(6.5%)	--	<b>22(71%)</b>	6(19.4%)	31(100%)
	BD	1(8.3%)	2(16.7%)	--	<b>6(50%)</b>	3(25%)	12(100%)
2. Inclusion of Environmental competencies in Job Specialization.	P	--	2(2.1%)	--	<b>57(60%)</b>	36(37.9%)	95(100%)
	S	--	1(9%)	--	<b>74(66.1%)</b>	37(33%)	112(100%)
	HS	--	1(3.2%)	--	<b>22(71%)</b>	8(25.8%)	31(100%)
	BD	--	--	--	<b>8(66.7%)</b>	4(33.3%)	12(100%)
3. Environmental capability of current employees	P	--	--	5(5.3%)	<b>63(66.3%)</b>	27(28.4%)	95(100%)
	S	--	1(9%)	4(3.6%)	<b>71(63.4%)</b>	36(32.1%)	112(100%)
	HS	--	1(3.2%)	5(16.1%)	<b>18(58.1%)</b>	7(22.6%)	31(100%)
	BD	--	--	2(16.7%)	<b>5(41.7%)</b>	<b>5(41.7%)</b>	12(100%)
4. Availability of capable employees	P	6(6.3%)	8(8.4%)	11(11.6%)	32(33.7%)	<b>38(40%)</b>	95(100%)
	S	4(3.6%)	6(5.4%)	13(11.6%)	<b>53(47.3%)</b>	36(32.1%)	112(100%)
	HS	4(12.9%)	6(19.4%)	7(22.6%)	7(22.6%)	7(22.6%)	31(100%)
	BD	1(8.3%)	2(16.7%)	4(33.3%)	3(25%)	2(16.7%)	12(100%)

5. Paper-free recruitment	P	3(3.2%)	10(10.5%)	17(17.9%)	<b>40(42.1%)</b>	25(26.3%)	95(100%)
	S	3(2.7%)	20(17.9%)	19(17%)	42(37.5%)	28(25%)	112(100%)
	HS	6(19.4%)	7(22.6%)	4(12.9%)	77(22.6%)	77(22.6%)	31(100%)
	BD	3(25%)	2(16.7%)	2(16.7%)	3(25%)	2(16.7%)	12(100%)
6. Effectiveness of Online application	P	6(6.3%)	4(4.2%)	37(38.9%)	<b>42(44.2%)</b>	6(6.3%)	95(100%)
	S	7(6.3%)	10(8.9%)	17(15.2%)	<b>46(41.1%)</b>	32(28.2%)	112(100%)
	HS	--	3(9.7%)	10(32.3%)	<b>18(58.1%)</b>	--	31(100%)
	BD	--	1(8.3%)	4(33.3%)	<b>7(58.3%)</b>	--	12(100%)
7. Effectiveness of Telephone based interview	P	2(2.1%)	4(4.2%)	17(17.9%)	<b>52(54.7%)</b>	20(21.1%)	95(100%)
	S	2(1.8%)	1(0.9%)	11(9.8%)	<b>52(46.4%)</b>	<b>46(41.1%)</b>	112(100%)
	HS	--	--	6(19.4%)	<b>16(51.6%)</b>	9(29%)	31(100%)
	BD	--	--	--	<b>6(50%)</b>	<b>6(50%)</b>	12(100%)
8. Corporate Environmental Culture	P	4(4.2%)	4(4.2%)	12(12.6%)	32(33.7%)	43(45.3%)	95(100%)
	S	5(4.5%)	3(2.7%)	12(10.7%)	37(33%)	<b>55(49.1%)</b>	112(100%)
	HS	3(9.7%)	5(16.1%)	2(6.5%)	10(32.3%)	11(35.5%)	31(100%)
	BD	2(16.7%)	--	1(8.3%)	4(33.3%)	<b>5(41.7%)</b>	12(100%)
9. Briefing Environmental Issues	P	9(9.5%)	16(16.8%)	2(2.1%)	33(34.7%)	35(36.8%)	95(100%)
	S	8(7.1%)	24(21.4%)	3(2.7%)	40(35.7%)	37(33%)	112(100%)
	HS	3(9.7%)	3(9.7%)	--	<b>19(61.3%)</b>	6(19.4%)	31(100%)
	BD	1(8.3%)	3(25%)	--	<b>5(41.7%)</b>	3(25%)	12(100%)
10. Green Training Contents	P	3(3.2%)	3(3.2%)	4(4.2%)	<b>44(46.3%)</b>	<b>41(43.2%)</b>	95(100%)
	S	4(3.6%)	8(7.1%)	7(6.3%)	<b>48(42.9%)</b>	<b>45(40.2%)</b>	112(100%)
	HS	3(9.7%)	2(6.5%)	4(12.9%)	<b>14(45.2%)</b>	8(25.8%)	31(100%)
	BD	--	2(16.7%)	2(16.7%)	<b>5(41.7%)</b>	3(25%)	12(100%)
11. Green Performance Targets	P	2(2.1%)	10(10.5%)	10(10.5%)	<b>45(47.4%)</b>	28(29.5%)	95(100%)
	S	8(7.1%)	7(6.3%)	13(11.6%)	43(38.4%)	<b>41(36.6%)</b>	112(100%)
	HS	--	3(9.7%)	3(9.7%)	<b>18(58.1%)</b>	7(22.6%)	31(100%)
	BD	--	--	2(16.7%)	<b>7(58.3%)</b>	3(25%)	12(100%)
12. Maintaining Environmental Standards	P	16(16.8%)	18(18.9%)	8(8.4%)	31(32.6%)	22(23.2%)	95(100%)
	S	4(3.6%)	9(8%)	11(9.8%)	37(33%)	<b>51(45.5%)</b>	112(100%)
	HS	4(12.9%)	6(19.4%)	--	<b>11(35.5%)</b>	10(32.3%)	31(100%)
	BD	3(25%)	2(16.7%)	1(8.3%)	2(16.7%)	4(33.3%)	12(100%)
13. Environmental Incentives	P	<b>25(26.3%)</b>	<b>29(30.5%)</b>	<b>24(25.3%)</b>	15(15.8%)	2(2.1%)	95(100%)
	S	21(18.8%)	<b>44(39.3%)</b>	18(16.1%)	22(19.6%)	7(6.3%)	112(100%)
	HS	<b>12(38.7%)</b>	<b>11(35.5%)</b>	3(9.7%)	5(16.1%)	--	31(100%)
	BD	1(8.3%)	7(58.3%)	--	4(33.3%)	--	12(100%)
14. Non-financial Incentives	P	4(4.2%)	12(12.6%)	6(6.3%)	<b>52(54.7%)</b>	21(22.1%)	95(100%)
	S	2(1.8%)	11(9.8%)	3(2.7%)	<b>55(49.1%)</b>	41(36.6%)	112(100%)
	HS	--	8(25.8%)	1(3.2%)	<b>14(45.2%)</b>	8(25.8%)	31(100%)
	BD	--	4(33.3%)	2(16.7%)	4(33.3%)	2(16.7%)	12(100%)
15.	P	--	10(10.5%)	3(3.2%)	36(37.9%)	<b>46(48.4%)</b>	95(100%)

Environmentally Sensitive Workplace	S	2(1.8%)	6(5.4%)	6(5.4%)	<b>50(44.6%)</b>	<b>48(42.9%)</b>	112(100%)
	HS	--	3(9.7%)	1(3.2%)	<b>13(41.9%)</b>	14(45.2%)	31(100%)
	BD	--	--	--	<b>5(41.7%)</b>	<b>7(58.3%)</b>	12(100%)
16. Safe Workplace	P	--	2(2.1%)	7(7.4%)	<b>42(44.2%)</b>	<b>44(46.3%)</b>	95(100%)
	S	--	4(3.6%)	1(0.9%)	<b>46(41.1%)</b>	<b>61(54.5%)</b>	112(100%)
	HS	--	1(3.2%)	--	<b>16(51.6%)</b>	<b>14(45.2%)</b>	31(100%)
17. Maintaining Employee Discipline	BD	--	--	1(8.3%)	2(16.7%)	<b>9(75%)</b>	12(100%)
	P	--	2(2.1%)	5(5.3%)	33(34.7%)	<b>55(57.9%)</b>	95(100%)
	S	2(1.8%)	5(4.5%)	6(5.4%)	44(39.3%)	<b>55(49.1%)</b>	112(100%)
18. Punishable non-compliance Issues	HS	--	2(6.5%)	2(6.5%)	11(35.5%)	<b>16(51.6%)</b>	31(100%)
	BD	--	2(16.7%)	2(16.7%)	<b>6(50%)</b>	2(16.7%)	12(100%)
	P	2(2.1%)	8(8.4%)	9(9.5%)	33(34.7%)	<b>43(45.3%)</b>	95(100%)
19. Employee Commitment Level	S	3(2.7%)	9(8%)	14(12.5%)	35(31.3%)	<b>51(45.5%)</b>	112(100%)
	HS	3(9.7%)	2(6.5%)	4(12.9%)	9(29%)	<b>13(41.9%)</b>	31(100%)
	BD	--	--	--	<b>6(50%)</b>	<b>6(50%)</b>	12(100%)
20. Supervisor's Encouragement	P	2(2.1%)	9(9.5%)	10(10.5%)	30(31.6%)	<b>44(46.3%)</b>	95(100%)
	S	4(3.6%)	9(8%)	7(6.3%)	36(32.1%)	<b>56(50%)</b>	112(100%)
	HS	1(3.2%)	3(9.7%)	2(6.5%)	8(25.8%)	<b>17(54.8%)</b>	31(100%)
	BD	--	3(25%)	--	<b>5(41.7%)</b>	4(33.3%)	12(100%)
	P	1(1.1%)	4(4.2%)	6(6.3%)	<b>43(45.3%)</b>	<b>41(43.2%)</b>	95(100%)
	S	2(1.8%)	3(2.7%)	4(3.6%)	<b>51(45.5%)</b>	<b>52(46.4%)</b>	112(100%)
	HS	--	1(3.2%)	--	<b>16(51.6%)</b>	<b>14(45.2%)</b>	31(100%)
	BD	--	1(8.3%)	--	<b>5(41.7%)</b>	<b>6(50%)</b>	12(100%)

**Table A-5:** Green HRM practices and environmental awareness among employees from 'Experience' perspective:

Variables	Experience (Years)	Responses					Total
		1	2	3	4	5	
1. Inclusion of environmental issues in Job Responsibilities.	1-5	3(7.5%)	7(17.5%)	--	<b>19(47.5%)</b>	11(27.5%)	40(100%)
	6-10	1(1.3%)	18(23.4%)	--	<b>34(44.2%)</b>	24(31.2%)	77(100%)
	11-15	3(2.7%)	7(6.2%)	--	<b>51(54%)</b>	42(37.2%)	113(100%)
	<b>16-20</b>	1(5%)	1(5%)	--	<b>11(55%)</b>	7(35%)	20(100%)
2. Inclusion of Environmental competencies in Job Specialization.	<b>1-5</b>	--	1(2.5%)	--	<b>27(67.5%)</b>	12(30%)	40(100%)
	6-10	--	2(2.6%)	--	<b>49(63.6%)</b>	26(33.8%)	77(100%)
	11-15	--	1(0.9%)	--	<b>73(64.6%)</b>	39(34.5%)	113(100%)
	16-20	--	--	--	<b>12(60%)</b>	<b>8(40%)</b>	20(100%)
3. Environmental capability of current	1-5	--	--	2(5%)	<b>27(67.5%)</b>	11(27.5%)	40(100%)
	<b>6-10</b>	--	--	5(6.5%)	<b>57(74%)</b>	15(19.5%)	77(100%)
	11-15	--	2(1.8%)	5(4.4%)	<b>66(58.4%)</b>	40(35.4%)	113(100%)

employees	16-20	--	--	4(20%)	7(35%)	9(45%)	20(100%)
4. Availability of capable employees	1-5	1(2.5%)	4(10%)	8(20%)	15(37.5%)	12(30%)	40(100%)
	<b>6-10</b>	5(6.5%)	4(5.2%)	6(7.8%)	<b>34(44.2%)</b>	28(36.4%)	77(100%)
	11-15	7(6.2%)	13(11.5%)	16(14.2%)	38(33.6%)	39(34.5%)	113(100%)
	16-20	2(10%)	1(5%)	5(25%)	<b>8(40%)</b>	4(20%)	20(100%)
5. Paper-free recruitment	<b>1-5</b>	--	3(7.5%)	10(25%)	<b>20(50%)</b>	7(17.5%)	40(100%)
	6-10	1(1.3%)	11(14.3%)	16(20.8%)	<b>34(44.2%)</b>	15(19.5%)	77(100%)
	11-15	10(8.8%)	22(19.5%)	15(13.3%)	31(27.4%)	35(31%)	113(100%)
	16-20	4(20%)	3(15%)	1(5%)	7(35%)	5(25%)	20(100%)
6. Effectiveness of Online application	1-5	8(20%)	4(10%)	9(22.5%)	14(35%)	5(12.5%)	40(100%)
	<b>6-10</b>	2(2.6%)	4(5.2%)	28(36.4%)	<b>35(45.5%)</b>	8(10.4%)	77(100%)
	11-15	2(1.8%)	10(8.8%)	24(21.2%)	<b>54(47.8%)</b>	23(20.4%)	113(100%)
	<b>16-20</b>	1(5%)	--	7(35%)	<b>10(50%)</b>	2(10%)	20(100%)
7. Effectiveness of Telephone based interview	<b>1-5</b>	1(2.5%)	2(5%)	9(22.5%)	<b>21(52.5%)</b>	7(17.5%)	40(100%)
	6-10	2(2.6%)	1(1.3%)	7(9.1%)	<b>39(50.6%)</b>	28(36.4%)	77(100%)
	11-15	--	2(1.8%)	16(14.2%)	<b>57(50.4%)</b>	38(33.6%)	113(100%)
	16-20	1(5%)	--	2(10%)	<b>9(45%)</b>	<b>8(40%)</b>	20(100%)
8. Corporate Environmental Culture	1-5	1(2.5%)	2(5%)	6(15%)	15(37.5%)	<b>16(40%)</b>	40(100%)
	6-10	4(5.2%)	1(1.3%)	8(10.4%)	30(39%)	<b>34(44.2%)</b>	77(100%)
	11-15	6(5.3%)	6(5.3%)	11(9.7%)	33(29.2%)	<b>57(50.4%)</b>	113(100%)
	16-20	3(15%)	3(15%)	2(10%)	5(25%)	7(35%)	20(100%)
9. Briefing Environmental Issues	1-5	7(17.5%)	10(25%)	--	12(30%)	11(27.5%)	40(100%)
	6-10	6(7.8%)	18(23.4%)	2(2.6%)	24(31.2%)	27(35.1%)	77(100%)
	<b>11-15</b>	7(6.2%)	12(10.6%)	3(2.7%)	<b>53(46.9%)</b>	38(33.6%)	113(100%)
	16-20	1(5%)	6(30%)	--	<b>8(40%)</b>	5(25%)	20(100%)
10. Green Training Contents	1-5	5(12.5%)	1(2.5%)	2(5%)	<b>18(45%)</b>	14(35%)	40(100%)
	6-10	1(1.3%)	3(3.9%)	4(5.2%)	<b>31(40.3%)</b>	<b>38(49.4%)</b>	77(100%)
	<b>11-15</b>	2(1.8%)	10(8.8%)	8(7.1%)	<b>53(46.9%)</b>	40(35.4%)	113(100%)
	16-20	2(10%)	1(5%)	3(15%)	<b>9(45%)</b>	5(25%)	20(100%)
11. Green Performance Targets	<b>1-5</b>	--	1(2.5%)	3(7.5%)	<b>24(60%)</b>	12(30%)	40(100%)
	6-10	5(6.5%)	7(9.1%)	12(15.6%)	<b>31(40.3%)</b>	22(28.6%)	77(100%)
	11-15	4(3.5%)	11(9.7%)	10(8.8%)	<b>49(43.4%)</b>	39(34.5%)	113(100%)
	16-20	1(5%)	1(5%)	3(15%)	<b>9(45%)</b>	6(30%)	20(100%)
12. Maintaining Environmental Standards	1-5	9(22.5%)	6(15%)	4(10%)	13(32.5%)	8(20%)	40(100%)
	6-10	7(9.1%)	9(11.7%)	6(7.8%)	30(39%)	25(32.5%)	77(100%)
	11-15	9(8%)	17(15%)	7(6.2%)	35(31%)	45(39.8%)	113(100%)
	16-20	2(10%)	3(15%)	3(15%)	3(15%)	<b>9(45%)</b>	20(100%)
13. Environmental Incentives	1-5	<b>10(25%)</b>	<b>10(25%)</b>	<b>9(22.5%)</b>	11(27.5%)	--	40(100%)
	6-10	22(28.6%)	<b>24(31.2%)</b>	17(22.1%)	11(14.3%)	3(3.9%)	77(100%)
	11-15	<b>25(22.1%)</b>	<b>44(38.9%)</b>	18(15.9%)	20(17.7%)	6(5.3%)	113(100%)



		)					
	16-20	2(10%)	13(65%)	1(5%)	4(20%)	--	20(100%)
14. Non-financial Incentives	1-5	3(7.5%)	4(10%)	2(5%)	21(52.5%)	10(25%)	40(100%)
	6-10	2(2.6%)	12(15.6%)	3(3.9%)	<b>38(49.4%)</b>	22(28.5%)	77(100%)
	<b>11-15</b>	1(0.9%)	17(15%)	5(4.4%)	<b>57(50.4%)</b>	33(29.2%)	113(100%)
	16-20	--	2(10%)	2(10%)	9(45%)	7(35%)	20(100%)
15. Environmentally Sensitive Workplace	1-5	--	4(10%)	4(10%)	15(37.5%)	<b>17(42.5%)</b>	40(100%)
	6-10	1(1.3%)	7(9.1%)	3(3.9%)	<b>33(42.9%)</b>	<b>33(42.9%)</b>	77(100%)
	11-15	--	7(6.2%)	2(1.8%)	<b>49(43.4%)</b>	<b>55(48.7%)</b>	113(100%)
	16-20	1(5%)	1(5%)	1(5%)	7(35%)	<b>10(50%)</b>	20(100%)
16. Safe Workplace	<b>1-5</b>	--	2(5%)	2(5%)	<b>18(45%)</b>	<b>18(45%)</b>	40(100%)
	6-10	--	1(1.3%)	5(6.5%)	<b>31(40.3%)</b>	<b>40(51.9%)</b>	77(100%)
	11-15	--	3(2.7%)	2(1.8%)	<b>50(44.2%)</b>	<b>58(51.3%)</b>	113(100%)
	16-20	--	1(5%)	--	7(35%)	<b>12(60%)</b>	20(100%)
17. Maintaining Employee Discipline	1-5	--	--	2(5%)	<b>17(42.5%)</b>	<b>21(52.5%)</b>	40(100%)
	6-10	--	3(3.9%)	3(3.9%)	30(39%)	<b>41(53.2%)</b>	77(100%)
	11-15	1(0.9%)	7(6.2%)	7(6.2%)	38(33.6%)	<b>60(53.1%)</b>	113(100%)
	<b>16-20</b>	1(5%)	1(5%)	3(15%)	<b>9(45%)</b>	6(30%)	20(100%)
18. Punishable non-compliance Issues	1-5	--	5(12.5%)	5(12.5%)	15(37.5%)	15(37.5%)	40(100%)
	6-10	2(2.6%)	4(5.2%)	9(11.7%)	24(31.2%)	<b>38(49.4%)</b>	77(100%)
	11-15	6(5.3%)	9(8%)	13(11.5%)	32(28.3%)	<b>53(46.9%)</b>	113(100%)
	16-20	--	1(5%)	--	12(60%)	7(35%)	20(100%)
19. Employee Commitment Level	1-5	--	3(7.5%)	4(10%)	15(37.5%)	<b>18(45%)</b>	40(100%)
	6-10	3(3.9%)	6(7.8%)	7(9.1%)	25(32.5%)	<b>36(46.8%)</b>	77(100%)
	11-15	3(2.7%)	13(11.5%)	7(6.2%)	35(31%)	<b>55(48.7%)</b>	113(100%)
	16-20	1(5%)	2(10%)	1(5%)	4(20%)	<b>12(60%)</b>	20(100%)
20. Supervisor's Encouragement	1-5	--	2(5%)	--	<b>17(42.5%)</b>	<b>21(52.5%)</b>	40(100%)
	6-10	1(1.3%)	3(3.9%)	6(7.8%)	<b>31(40.3%)</b>	<b>36(46.8%)</b>	77(100%)
	11-15	1(0.9%)	3(2.7%)	4(3.5%)	<b>56(49.6%)</b>	<b>49(43.4%)</b>	113(100%)
	<b>16-20</b>	1(5%)	1(5%)	--	<b>11(55%)</b>	7(35%)	20(100%)

## **BANKRUPTCY PREDICTION BY USING THE ALTMAN Z-SCORE MODEL: A CASE STUDY ON LISTED CERAMIC COMPANIES IN BANGLADESH**

**Sumi Azad\***

### **Abstract**

*Altman's Z-score has been proven to be an effective and trustworthy tool all over the world among lots of techniques accessible to predict financial solvency of a business firm. This model is applied to predict the possibilities of bankruptcy of both manufacturing and service organization. In this regard, Multiple Discriminate Analysis (MDA) is a useful tool that helps to strengthen the effect of all ratios on financial distress. In this current study, the Altman's "Z score" analysis has been adopted and considers five ratios of Z-score value for Manufacturing Industries. We have used data of five ceramic companies listed in Dhaka Stock Exchange (DSE) over a period of 5 years from 2013 to 2017 as a sample. Based on ratios, the study revealed that among the five companies RAK, Standard and Fuwang Ceramic Limited are financially solvent and have no probability of bankruptcy in near future as they have higher Z score value respectively than the benchmark (2.99). On the other hand Monno and Shinepukur Ceramic Companies have very high probability of bankruptcy in near future as they have lowest Z score value respectively than the benchmark (1.80).*

**Keywords:** *Financial solvency, Altman's Z-score, Ceramic Company, Financial Distress, Bankruptcy.*

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### **Introduction**

A state's financial strength depends on the performances of its economic units. Along with household and government unit, business unit plays an essential role in development of the economy. Financial solvency and stability are important factors for profit oriented business organizations. It brings a sustainable growth for firms as well as the state. Thus, financial solvency becomes a crucial issue for a profit oriented business firm to survive in competitive arena. Financial health depends on the solvency and liquidity of the firm which must be managed in the most efficient manner as to guaranty the systematic growth and continued existence of the organization. The financial health can change into financial distress when the companies operating cash flows are insufficient to meet the current obligation. A firm in financial distress may also face bankruptcy or liquidation to meet its obligation. In this context, it is quite contemporary to study solvency of both manufacturing and service sector.

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In this paper, an in depth look is going to be taken at the Altman's Z-score model with a view to assess the financial solvency of the listed ceramic companies in Bangladesh is. This paper is divided into five parts; following the introduction is the review of relevant literature, the third part presents the methodology that is used in gathering data and how the data were analyzed. Fourth part presents the data and discusses the result of the analysis while last part contains the conclusion.

## **Literature Review**

### **Financial Distress and Bankruptcy**

According to Gentry et al. (1990) financial distress is a state where incoming cash flow of the company is lower than outgoing cash flow that reflects a net cash outflow which corroborates financial distress. Brigham et al. (1999) states that the company which is unable to satisfy its obligations or such perception is visible from of the financial statements are financially distressed. According to Rae and Fallahpour (2004), financial distress is a situation when company's profitability decreases that increases the likelihood of company's inability to pay the principle and interest of debts.

Increasing cost of capital, restriction of creditors and suppliers to finance the company, increasing financial risk and regular change of the key employees etc are the signals of financial distress for a company which occurs due to inefficiency and ineffectiveness of operations, deficiency of market conditions.

### **Model Used in Predicting Financial Distress and Bankruptcy**

There are numerous research works about financial distress and bankruptcy prediction and comparison of different models. Some of these researches will be discussed in the following.

FitzPatrick (1932) was the first researcher who thoroughly studied prediction of financial distress using data of 20 bankrupted and healthy firms over 13 years based on 13 financial ratios and found that all of the financial ratios can predict bankruptcy to some extent.

Based on Multiple Criteria Quadratic Programming model, Wang *et al.* (2009) predict financial distress of manufacturing companies and conclude that a steady and realistic result in predicting financial distress is gained through this model.

Bhunia A and Sarkar, R. (2011) has analyzed 16 financial ratios under discriminant analysis and claim that multiple discriminant analysis is a very trustworthy and powerful statistical tool for predicting financial distress.

### **Predicting Financial Distress and Bankruptcy with Altman Z-Score Model**

The wide usage of the Z-Score Model as a measure of financial distress or financial strength in the economic and financial research points out that it is widely accepted as a venerable, simple and consistent measure of the distressed firm at risk. In case of the modification of the Z-Score Model, the most important changes were: (1) the use of firms' up-dated financial data in order to re-estimate coefficients and (2) the use of other estimation techniques in order to improve efficacy in comparison to the original model. The use of Altman's ratios combined with other than MDA modeling techniques has improved the prediction ability.

In comparison with market-based models or hazard models, Altman's Z-Score Model generally underperformed (4 studies), outperformed (2) or provided similar results. In Reisz and Perlich (2007), it was assessed as a better measure for short-term bankruptcy prediction than the market-based models and in Das, Hanouna and Sarin, (2009), it was shown to perform comparably to the Merton structural, market-based approach for CDS spread estimation.

The Altman Z score model is used in different countries for predicting financial distress as well as bankruptcy. Mizan, Amin, and Rahman (2011) have done a study applying Altman Z-score Model for the prediction of bankruptcy of the pharmaceutical industry in Bangladesh using data on six leading companies of this industry and the result of the study that, two firms are found financially sound having no bankruptcy possibility in the near future and other companies are found to be unsatisfactory and they have a significant likelihood of facing financial crisis in the near future. The study also stated that market value of equity of most of the firms is not reflecting the fundamentals of the respective companies.

Sanobar Anjum (2012) has conducted significant studies in the bankruptcy prediction area and provides a comparison of the different models which are commonly used. The analysis revealed that most of the bankruptcy studies have used multiple discriminant analysis (MDA) statistical techniques to develop models and have included large and small firms, as well as private & publicly held firms. Kumari's (2013) paper tried to predict bankruptcy for MMTC based on Altman's model of the Z score. The study concluded that the overall financial health of MMTC is good, and it can be quoted as an investor friendly company.

One of the best-known models for predicting corporate financial distress is the Altman's Z-Score model (Altman, 1968, 1983, 1993). Altman's work has shown that the Z-Score and its variants have a very high degree of accuracy in predicting corporate financial distress in the U.S. as well as in the emerging markets (Altman, Hatzell and Peck, 1995). The purpose of this paper is to provide an out-of-sample test of the Zscore model and its variants by applying them to a sample of firms in the emerging Bangladesh stock market specifically for the ceramic industry. This application is particularly important for the emerging market investors.

Understanding the potential for corporate distress has become ever more important in light of corporate distress and bankruptcies in developing stock markets, particularly in the aftermath of the Asian crisis.

This paper contributes to the literature by applying the well-known Z-Score distress prediction model to an emerging market. The results provide us with evidence of the validity of a set of financial ratios, identified with reference to the U.S. companies, in predicting financial distress in an emerging market.

### **Research Objectives**

- To predict the financial distress of listed ceramic companies in Bangladesh.
- To accomplish comparative analysis of the financial performance of the listed ceramic companies.
- To identify the potential ceramic company's underlying financial distress.

### **Research Methodology**

#### **Sample Selection**

To achieve the purpose of this study the researcher selected five ceramic companies listed in the Dhaka Stock Exchange (DSE) namely (1) Standard Ceramic Limited, (2) RAK Ceramic Limited, (3) Shinepukur Ceramic Limited, (4) Monno Ceramic Limited and (5) Fuwang Ceramic Limited as sample.

#### **Methods of Data Collection**

The study is an analytical research based on accounting phenomenon secondary data. For each company selected, all the necessary data of five years starting from 2013 to 2017 were collected from the published annual reports, financial journals, bulletins and websites for calculation of the five ratios used in Altman Z-Score value for Public Companies or Manufacturing Industries.

#### **Tools & Techniques**

The researcher has applied Z-score Model and Average as tool for drawing the conclusion of the research.

The Z- score was first developed by Professor Edward Altman in 1960. The Z-score methodology was developed to provide a more effective and reliable financial assessment tool for credit risk analysts and lenders. It is a measure a company's financial condition and probability of bankruptcy. Several key ratios are used in the formulation of an Altman Z-score value. It is widely acknowledged because it uses multiple variables to measure the financial health and credit worthiness of a borrower. The Z-score is an open

system. This allows users of the Z-score to understand the variables employed in the algorithm.

The Z-score has gained wide acceptance from auditors, management accountants, courts, and database systems used for loan evaluation. The formula's approach has been used in a variety of contexts and countries.

**Z-score value for manufacturing industries is calculated as follows:**

$$Z = 1.2*X_1 + 1.4*X_2 + 3.3*X_3 + 0.6*X_4 + 1.0*X_5$$

**Table 1: Ratios of Z-score value Manufacturing Industries**

$X_1$  = Working Capital/Total Assets

$X_2$  = Retained Earnings/Total Assets

$X_3$  = EBIT/Total Assets

$X_4$  = Market Value of Equity/Total Liabilities

$X_5$  = Net Sales/Total Assets

**Result Explanation:**

The result of Altman Z-score Model for public and manufacturing companies is interpreted as follows:

**Table 2: Result of Altman Z-score Model for Manufacturing Industries**

- Z-score above 3.0 – The Company is considered 'Safe' based on the financial figures only.
- Z-score between 2.7 and 2.99 – 'On Alert'. This zone is an area where one should 'Exercise Caution'.
- Z-score between 1.8 and 2.7 – Good chance of the company going bankrupt within 2 years of operations from the date of financial figures given.
- Z-score below 1.80 – Probability of Financial devastation is Very High.

## Analysis and Findings

### Working Capital to Total Assets Ratio:

The Working Capital to Total Assets ratio measures a company's ability to cover its short term financial obligations (Total Current Liabilities) by comparing its Total Current Assets to its Total Assets. This ratio can provide some insight as to the liquidity of the company.

**Table 3:** Net Working Capital to Total Assets Ratio of Selected Ceramic Companies

Name of Ratio	$X_1 = \text{Net Working Capital to Total Assets Ratio}$					
Year	2017	2016	2015	2014	2013	Average
Name of Company						
Standard Ceramic Limited	-0.0722	-0.0470	-0.0252	-0.0431	-0.0623	<b>-0.0449</b>
RAK Ceramic Limited	0.2279	0.2331	0.0002	0.0015	0.3435	<b>0.1612</b>
Shinepukur Ceramic Limited	-0.1096	-0.1064	-0.0797	-0.0113	-0.0068	<b>-0.0628</b>
Monno Ceramic Limited	0.0289	0.0557	0.0067	0.0069	0.0188	<b>0.0234</b>
Fuwang Ceramic Limited	0.2639	0.3145	0.2192	0.2097	0.1731	<b>0.2361</b>

**Source:**  $X_1$  computed by researcher's based on values extracted from audited financial statements 2013-2017

Among the five companies, RAK, Monno and Fuwang Ceramic have positive Working Capital to Total Assets Ratio, indicates each company's liquidity position is improving over time. On the other hand, Standard and Shinepukur Ceramic have negative ratio indicates both the companies are unable to make payments to its suppliers and creditors, even when it makes profit and has assets to cover its liabilities due to serious cash flow difficulties.

### Retained Earnings to Total Assets Ratio:

The Retained Earnings to Total Assets Ratio measures the company's ability to accumulate earnings using its Total Assets.

**Table 4:** Retained Earnings to Total Assets Ratio of Selected Ceramic Companies

Name of Ratio	$X_2 = \text{Retained Earnings to Total Assets Ratio}$
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Year	2017	2016	2015	2014	2013	Average
<b>Name of Company</b>						
Standard Ceramic Limited	-0.0990	-0.0498	-0.0462	-0.0027	0.0084	<b>-0.0286</b>
RAK Ceramic Limited	0.1254	0.1183	0.1156	0.1903	0.2190	<b>0.1537</b>
Shinepukur Ceramic Limited	-0.0288	-0.0300	0.0119	-0.0128	-0.0121	<b>-0.0144</b>
Monno Ceramic Limited	0.0444	0.0302	0.0306	0.0224	0.0217	<b>0.0299</b>
Fuwang Ceramic Limited	0.0619	0.0938	0.0323	0.0571	0.0814	<b>0.0653</b>

**Source:** X<sub>2</sub> computed by researcher's based on values extracted from audited financial statements 2013-2017

Among the five companies, RAK, Monno and Fuwang Ceramic have positive Retained Earnings to Total Assets Ratio, indicates all the company is able to continually retain increasingly more earnings as assets are effectively utilized. On the other hand, Standard and Shinepukur Ceramic have negative Retained Earnings to Total Assets ratio indicates companies are unable to retain earnings by utilizing its assets due to poor management of assets.

### **Earnings before Interest and Tax (EBIT) to Total Assets Ratio:**

Earnings before Interest and Tax (EBIT) to Total Assets Ratio indicate a proportion between the measure that shows company's profitability and company's assets. In short, it represents general profitability of the company's assets. This allows the organization to see the relationship between its resources and its income, and it can provide a point of comparison to determine if an organization is using its assets more or less effectively than it had previously.

**Table 5:** EBIT to Total Assets Ratio of Selected Ceramic Companies

Name of Ratio	X <sub>3</sub> = EBIT to Total Assets Ratio					
Year	2017	2016	2015	2014	2013	Average
<b>Name of Company</b>						
Standard Ceramic Limited	-0.0011	0.0730	0.0651	0.0674	0.0449	<b>0.0499</b>
RAK Ceramic Limited	0.1296	0.1194	0.1012	0.0846	0.1123	<b>0.1094</b>
Shinepukur Ceramic Limited	0.0361	0.0379	0.0367	0.0421	0.0513	<b>0.0408</b>
Monno Ceramic Limited	0.0264	0.0201	0.0183	0.0226	0.0258	<b>0.0226</b>
Fuwang Ceramic Limited	0.0659	0.0885	0.0418	0.0480	0.1283	<b>0.0745</b>



**Source:**  $X_3$  computed by researcher's based on values extracted from audited financial statements 2013-2017

Among the five companies, RAK Ceramic Limited has higher EBIT to Total Assets Ratio, indicates the company is able to continually generate more income from using its assets effectively. On the other hand, Monno Ceramic has the lower EBIT to Total Assets Ratio, indicates company is fail to generate more income from its assets.

### **Market Value of Equity to Total Liabilities (ME/TL) Ratio:**

Market Value of Equity to Total Liabilities (ME/TL) Ratio compares the company's market stock price to the total debt of that company. It shows market's reaction to company's financial position.

**Table 6:** Market Value of Equity to Total Liabilities Ratio of Selected Ceramic Companies

Name of Ratio	$X_4 =$ Market Value of Equity to Total Liabilities Ratio						
	Year	2017	2016	2015	2014	2013	Average
<b>Name of Company</b>							
Standard Ceramic Limited	17.0138	2.5747	2.0537	2.9348	1.8357	<b>5.2825</b>	
RAK Ceramic Limited	4.1580	4.3584	819.875	874.619	60.4318	<b>352.688</b>	
Shinepukur Ceramic Limited	1.0662	0.5490	0.5626	0.7273	1.2440	<b>0.8298</b>	
Monno Ceramic Limited	0.9760	0.9280	0.7659	0.8656	0.9048	<b>0.8881</b>	
Fuwang Ceramic Limited	3.7991	6.2636	3.1116	4.7583	4.3402	<b>4.4546</b>	

**Source:**  $X_4$  computed by researcher's based on values extracted from audited financial statements 2013-2017

Among five companies, RAK Ceramic Limited has higher debt-equity ratio, showing the company is stable with significant cash flow generation from using its debts efficiently and successfully. On the other hand, Monno and Shinepukur Ceramic Limited have the lower debt-equity ratio, indicates both the company is not much effective with significant cash flow generation from using their debts.

### **Net Sales to Total Assets Ratio:**

Net Sales to Total Assets Ratio is a measure of a company's efficiency in managing its assets in relation to the revenue generated.

**Table 7:** Net Sales to Total Assets Ratio of Selected Ceramic Companies

Name of Ratio	$X_5 = \text{Net Sales to Total Assets Ratio}$					Average
	Year	2017	2016	2015	2014	
<b>Name of Company</b>						
Standard Ceramic Limited	1.3415	1.3903	1.3159	1.1130	1.1094	<b>1.2540</b>
RAK Ceramic Limited	0.6031	0.5109	0.4752	0.5145	0.5058	<b>0.5219</b>
Shinepukur Ceramic Limited	0.2222	0.2177	0.2112	0.2508	0.2462	<b>0.2296</b>
Monno Ceramic Limited	0.2679	0.2548	0.2483	0.2257	0.2477	<b>0.2489</b>
Fuwang Ceramic Limited	0.2483	0.5319	0.4413	0.4961	0.5205	<b>0.4476</b>

**Source:**  $X_5$  computed by researcher's based on values extracted from audited financial statements 2013-2017

Among the five companies Standard has higher Net Sales to Total Assets Ratio indicates that it needs smaller investment to generate higher revenue whereas the other four companies need to invest more in order to generate more revenue.

**Table 8:** Average Value of the Ratios of Selected Ceramic Companies

Name of Company	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$
Standard Ceramic Limited	-0.0449	-0.0286	0.0499	5.2825	1.2540
RAK Ceramic Limited	0.1612	0.1537	0.1094	352.688	0.5219
Shinepukur Ceramic Limited	-0.0628	-0.0144	0.0408	0.8298	0.2296
Monno Ceramic Limited	0.0234	0.0299	0.0226	0.8881	0.2489
Fuwang Ceramic Limited	0.2361	0.0653	0.0745	4.4546	0.4476

RAK Ceramic Limited has highest average value of ratios and Shinepukur Ceramic Limited has lowest average value of ratios.

**Table 9:** Samples Ceramic Companies: Z-Score & Ranking

SR NO.	Companies	Z-Score Value	Rank
1	RAK Ceramic Limited	212.9045	1 <sup>st</sup>
2	Standard Ceramic Limited	4.4944	2 <sup>nd</sup>
3	Fuwang Ceramic Limited	3.471	3 <sup>rd</sup>
4	Monno Ceramic Limited	0.9264	4 <sup>th</sup>
5	Shinepukur Ceramic Limited	0.7603	5 <sup>th</sup>

The above table exposes the financial health of all the selected ceramic companies. The RAK Ceramic Limited has the first position based on Z score value in regards with financial soundness and having no bankruptcy possibility in the near as its performance is

tremendous in every aspect of calculated ratios. Standard and Fuwang Ceramic Limited have the 2<sup>nd</sup> and 3<sup>rd</sup> position respectively having sufficient solvency and liquidity that lead them better financial position as well as ensuring no bankruptcy possibility in the near.

Monno and Shinepukur Ceramic Limited have taken the 4<sup>th</sup> and 5<sup>th</sup> position based on Z score value. They are found to be unsatisfactory and have a significant likelihood of facing financial crisis in the near future.

### **Conclusion**

The fundamental financial health of a business firm is the main concern for the stakeholders, creditors, suppliers and so on. On the basis of the financial stability and soundness, all the concerned parties take their decisions regarding their possible involvement with a particular firm. The Altman Z score is the best measurement that can shape the decision of those concerned parties. The current study has been conducted to assess the financial health of five listed ceramic companies. The study revealed that RAK, Standard and Fu Wang Ceramic Limited are financially sound as they have higher Z score value. On the other hand Monno and Shinepukur Ceramic Limited have very lowest Z score value .So RAK, Standard and Fuwang Ceramic Limited have no probability of bankruptcy in near future. But Monno and Shinepukur Ceramic Limited have very high probability of bankruptcy in near future. Thus, they are required to improve their financial performance to avoid bankruptcy. They can improve their financial performance or Z-score by maintaining working capital, increasing retained earnings and EBIT and by reducing total debts.

The findings of the study can be useful for the managers to take financial decision, the stockholders to choose investment options and others to look after their interest in the concern ceramic companies of the country.

It is suggested that investors and creditors, suppliers and other parties should not only rely on common financial ratios as fundamental analysis and Z-score Model but should also consider the other factors like international affairs, political stability, economical factors etc. while taking investment decision. Although the Z-score can be influenced by external events, it is a useful tool to provide a quick analysis of where a company stands compared to competitors, and for tracking the risk of insolvency over time.

This study was based on a case study of five listed ceramic companies operating in Bangladesh. We have a scope of further study on this topic by studying all the ceramic companies operated in Bangladesh.

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## Appendices

### Calculation of Ratios of Z-Score Value:

**Table 1:** Net Working Capital to Total Assets Ratio of Selected Ceramic Companies

Name of Company	Standard Ceramic Limited				
Year	2017	2016	2015	2014	2013
Net Working capital	-14180624	-9864023	-5455845	-9134317	-13746977
Total Assets	196317168	209928807	216853833	212017753	220830496
$X_1$	-0.0722	-0.0470	-0.0252	-0.0431	-0.0623
Name of Company	RAK Ceramic Limited				
Net Working capital	2633776684	2544560844	2114094	14605985	3183404606
Total Assets	11554551887	10917497345	10548308666	9736849086	9266255808
$X_1$	0.2279	0.2331	0.0002	0.0015	0.3435
Name of Company	ShinepukurCeramic Limited				
Net Working capital	-709106285	-690200549	-532861357	-75320859	-46604141
Total Assets	6471085712	6484417108	6683795327	6689447389	6874254239
$X_1$	-0.1096	-0.1064	-0.0797	-0.0113	-0.0068
Name of Company	Monno Ceramic Limited				
Net Working capital	92870951	179127350	20413598	21094713	57261960
Total Assets	3208032072	3214882621	3050663530	3068425352	3043563145
$X_1$	0.0289	0.0557	0.0067	0.0069	0.0188
Name of Company	Fuwang Ceramic Limited				
Net Working capital	502253398	494762027	335889030	292829659	245798197
Total Assets	1903075167	1573319745	1532673986	1396388266	1419941949
$X_1$	0.2639	0.3145	0.2192	0.2097	0.1731

**Table 2:** Retained Earnings to Total Assets Ratio of Selected Ceramic Companies

Name of Company	Standard Ceramic Limited				
Year	2017	2016	2015	2014	2013
Retained Earnings	-19436206	-10444668	-10023078	-572299	1853964
Total Assets	196317168	209928807	216853833	212017753	220830496
X <sub>2</sub>	-0.0990	-0.0498	-0.0462	-0.0027	0.0084
Name of Company	RAK Ceramic Limited				
Retained Earnings	1448741753	1291214523	1219078987	1853026000	2029441871
Total Assets	11554551887	10917497345	10548308666	9736849086	9266255808
X <sub>2</sub>	0.1254	0.1183	0.1156	0.1903	0.2190
Name of Company	ShinepukurCeramic Limited				
Retained Earnings	-186182913	-194475671	79742195	-85767929	-83431701
Total Assets	6471085712	6484417108	6683795327	6689447389	6874254239
X <sub>2</sub>	-0.0288	-0.0300	0.0119	-0.0128	-0.0121
Name of Company	Monno Ceramic Limited				
Retained Earnings	142348649	97217537	93392163	68580980	66036592
Total Assets	3208032072	3214882621	3050663530	3068425352	3043563145
X <sub>2</sub>	0.0444	0.0302	0.0306	0.0224	0.0217
Name of Company	Fuwang Ceramic Limited				
Retained Earnings	117886471	147638343	49511257	79755543	115587240
Total Assets	1903075167	1573319745	1532673986	1396388266	1419941949
X <sub>2</sub>	0.0619	0.0938	0.0323	0.0571	0.0814

**Table 3:** EBIT to Total Assets Ratio of Selected Ceramic Companies

Name of Company	Standard Ceramic Limited				
Year	2017	2016	2015	2014	2013
EBIT	-210996	15320869	14108414	14299457	9909647
Total Assets	196317168	209928807	216853833	212017753	220830496
X <sub>3</sub>	-0.0011	0.0730	0.0651	0.0674	0.0449
Name of Company	RAK Ceramic Limited				
EBIT	1497533332	1303526582	1067953100	823612963	1041025563
Total Assets	11554551887	10917497345	10548308666	9736849086	9266255808
X <sub>3</sub>	0.1296	0.1194	0.1012	0.0846	0.1123
Name of Company	ShinepukurCeramic Limited				
EBIT	233790163	245612778	245612778	281764446	352306058
Total Assets	6471085712	6484417108	6683795327	6689447389	6874254239

$X_3$	0.0361	0.0379	0.0367	0.0421	0.0513
Name of Company	Monno Ceramic Limited				
EBIT	84538009	64607706	55737342	69319304	78634749
Total Assets	3208032072	3214882621	3050663530	3068425352	3043563145
$X_3$	0.0264	0.0201	0.0183	0.0226	0.0258
Name of Company	Fuwang Ceramic Limited				
EBIT	125380177	139226917	64080842	66964797	182235249
Total Assets	1903075167	1573319745	1532673986	1396388266	1419941949
$X_3$	0.0659	0.0885	0.0418	0.0480	0.1283

**Table 4:** Market Value of Equity to Total Liabilities Ratio of Selected Ceramic Companies

Name of Company	Standard Ceramic Limited				
Year	2017	2016	2015	2014	2013
Market Value of Equity	374071635	292667445	246796830	310757265	206094735
Total Liabilities	21986343	113669614	120173050	105886191	112272671
$X_4$	17.0138	2.5747	2.0537	2.9348	1.8357
Name of Company	RAK Ceramic Limited				
Market Value of Equity	21186219146	20851052821	22535305876	19368910133	163219433286
Total Liabilities	5095230745	4784128733	27486287	22145547	2700887668
$X_4$	4.1580	4.3584	819.8745	874.6187	60.4318
Name of Company	Shinepukur Ceramic Limited				
Market Value of Equity	2454333119	1293301284	1366784312	1763592660	2968714311
Total Liabilities	2302035885	2355561567	2429364245	2424852405	2386387650
$X_4$	1.0662	0.5490	0.5626	0.7273	1.2440
Name of Company	Monno Ceramic Limited				
Market Value of Equity	928407176	880551136	593414896	684341372	665198956
Total Liabilities	951228943	948832371	774830755	790616493	735188975
$X_4$	0.9760	0.9280	0.7659	0.8656	0.9048
Name of Company	Fuwang Ceramic Limited				
Market Value of Equity	2083453091	1824429193	1191342413	1336875730	1499946884
Total Liabilities	548401338	291275023	382869437	280951811	345594147
$X_4$	3.7991	6.2636	3.1116	4.7583	4.3402

**Table 5:** Net Sales to Total Assets Ratio of Selected Ceramic Companies

Name of Company	Standard Ceramic Limited				
Year	2017	2016	2015	2014	2013
Net Sales	263367777	291867354	285359604	235977047	244983269
Total Assets	196317168	209928807	216853833	212017753	220830496
X <sub>5</sub>	1.3415	1.3903	1.3159	1.1130	1.1094
Name of Company	RAK Ceramic Limited				
Net Sales	6968838073	5577443970	5013034253	5009387118	4687262509
Total Assets	11554551887	10917497345	10548308666	9736849086	9266255808
X <sub>5</sub>	0.6031	0.5109	0.4752	0.5145	0.5058
Name of Company	ShinepukurCeramic Limited				
Net Sales	1437866858	1411871705	1411871705	1677657674	1692444714
Total Assets	6471085712	6484417108	6683795327	6689447389	6874254239
X <sub>5</sub>	0.2222	0.2177	0.2112	0.2508	0.2462
Name of Company	Monno Ceramic Limited				
Net Sales	859492844	819055956	757385343	692427630	753989906
Total Assets	3208032072	3214882621	3050663530	3068425352	3043563145
X <sub>5</sub>	0.2679	0.2548	0.2483	0.2257	0.2477
Name of Company	Fuwang Ceramic Limited				
Net Sales	472605410	836889015	676314432	692791034	739114427
Total Assets	1903075167	1573319745	1532673986	1396388266	1419941949
X <sub>5</sub>	0.2483	0.5319	0.4413	0.4961	0.5205

**Calculation of Z-Score:**

**Table 6:** Standard Ceramic Limited: Z-Score

Z-Score Component	Z- Score Multiple	Z- Score Value
X <sub>1</sub>	1.2*(-0.0449)	-0.0538
X <sub>2</sub>	1.4*(-0.0286)	-0.0400
X <sub>3</sub>	3.3*0.0499	0.1647
X <sub>4</sub>	0.6*5.2825	3.1695
X <sub>5</sub>	1.0*1.2540	1.2540
Z- Score of Standard Ceramic Limited		<b>4.4944</b>



**Table 7: RAK Ceramic Limited: Z-Score**

Z-Score Component	Z- Score Multiple	Z- Score Value
X <sub>1</sub>	1.2*0.1612	0.1934
X <sub>2</sub>	1.4*0.1537	0.2152
X <sub>3</sub>	3.3*0.1094	0.3610
X <sub>4</sub>	0.6*352.688	211.613
X <sub>5</sub>	1.0*0.5219	0.5219
Z- Score of RAK Ceramic Limited		<b>212.9045</b>

**Table 8: Shinepukur Ceramic Limited: Z-Score**

Z-Score Component	Z- Score Multiple	Z- Score Value
X <sub>1</sub>	1.2*(-0.0628)	-0.0816
X <sub>2</sub>	1.4*(-0.0144)	-0.0202
X <sub>3</sub>	3.3*0.0408	0.1346
X <sub>4</sub>	0.6*0.8298	0.4979
X <sub>5</sub>	1.0*0.2296	0.2296
Z- Score of Shinepukur Ceramic Limited		<b>0.7603</b>

**Table 9: Monno Ceramic Limited: Z-Score**

Z-Score Component	Z- Score Multiple	Z- Score Value
X <sub>1</sub>	1.2*0.0234	0.0281
X <sub>2</sub>	1.4*0.0299	0.0419
X <sub>3</sub>	3.3*0.0226	0.0746
X <sub>4</sub>	0.6*0.8881	0.5329
X <sub>5</sub>	1.0*0.2489	0.2489
Z- Score of Monno Ceramic Limited		<b>0.9264</b>

**Table 10:** Fuwang Ceramic Limited: Z-Score

Z-Score Component	Z- Score Multiple	Z- Score Value
X <sub>1</sub>	1.2*0.2361	0.2833
X <sub>2</sub>	1.4*0.0653	0.0914
X <sub>3</sub>	3.3*0.0745	0.2459
X <sub>4</sub>	0.6*4.4546	2.6728
X <sub>5</sub>	1.0*0.4476	0.4476
Z- Score of Fuwang Ceramic Limited		<b>3.471</b>

## MEASURING LOCAL RESIDENT'S ATTITUDES TOWARDS THE IMPACT OF TOURISM DEVELOPMENT: A STUDY OF SAJEK VALLEY

Dr. Mohammad Badruzzaman Bhuiyan<sup>†</sup>

### Abstract

*Despite the increasing research on local resident's perceptions toward tourism development, there is limited research on Sajek valley, a growing tourism sector for the tourists as well as local residents in the view points of economic benefits. Sajek valley, also known as "Roof of Rangamati" because of its heights, takes its name from the river Sajek originated from the river Karnafuli. In this paper, we analyze the perceptions and attitudes of local residents in an emerging tourist destination: Sajek valley. This study aims to investigate the local residents' attitudes toward tourism development. To conduct this study, a survey was administered among 150 respondents who were local residents of Sajek Valley, using a type of non-probability sampling that is convenience sampling technique. Using a face-to-face questionnaire, data was collected from local residents in a community situated in Baghaichari Upazila in Rangamati. Following data collection from a questionnaire, factor analysis, correlation and regression analyses were conducted. Four factors (economic impacts, Socio-cultural impacts, environmental impacts, physical impacts) emerged and these all four factors are interrelated and highly influential local resident's attitudes towards tourism development. The results revealed that the majority of residents are supportive of tourism development in the region. Socio-cultural and economic impacts had significant and positive influence on tourism development, while environmental had also significant impacts but had a negative influence on future tourism growth as well as physical impacts.*

**Keywords:** *Local residents, residents' attitudes, tourism development, tourism impact*

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### Introduction

Sajek Valley is one the most attractive tourists spots with its scenic beauty in Bangladesh. It is situated at Sajek union of Baghaichari Upazila in Rangamati. This is known as the biggest Union of Bangladesh. It lies approximately 2000 feet above the sea level. Most of the houses are made of bamboos. The main ethnic minorities on the valley are Chakma, Marma, Tripura, Pankua, Lushai and Sagma. Most of the people are Buddhist, and people are Christian here. There is another place near Sajek - Kanlak Village which is the highest village in Bangladesh, and it is famous for the orange orchards in winter season.

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Tourist attractions of the spot mostly encompass the sunset, rain, morning, evening, and night and aborigine people. Tourist can buy aborigine people product from indigenous market at Sajek Valley. A new road has been built up to the Ruilui Para by the guidance of Bangladesh army. Once local people worked majorly in agriculture, manufacture and local businesses. But in recent days, local residents are engaged in various tourism related activities such as hotels and resorts operations, restaurants businesses, transportations, cng/ chader gari drivers, coffee shops, tourism Park, tour guide, souvenir shops, recreations and entertainment facilities. Therefore, the involvement and the participation of the local residents are pertinent towards the success of the tourism development plan. It is a clear statement that the role of the residence is necessary to support tourism development and maintain its robust growth. The attitudes and perceptions of local communities or residents are of special interest when examining and managing the economic, socio- cultural and environmental aspects of tourism development in Sajek Valley. the local residents perceived that tourism brings economic opportunities – especially for a population whose traditional fate was to emigrate – and has other positive impacts such as increased investments in infrastructures and higher quality hospitality and retail establishments.

### **Literature Review**

Over the years rural tourism has been identified as an important ‘niche’ in the tourism literature to ensure economic and socio -cultural development (Kuuder et al., 2013). Geographical locations, microclimatic conditions, existence of water, natural vegetation and wildlife, geomorphologic structure, local cuisines, festivals and pageants, traditional agricultural system, local handicrafts, regional dress culture, historical events and people, heritage appeals, architectural variety, folk dances and artistic activities form a major base for rural tourism (Catibog -Sinha and Wen, 2008; Kiper, 2011). It contributes to conservation of biodiversity, sustains the well -being of local people, involves responsible action on the part of tourist and the tourism industry, promotes small and medium tourism enterprises, requires lowest possible consumption of natural resources, stresses local participation, ownership, and business opportunities, particularly for rural people and above all includes the learning experiences (Kiper, 2011). A comprehensive review of studies suggests that each tourism impact category includes positive and negative effects and sometimes residents’ attitude are contradictory. The economic impacts of tourism are mainly perceived by residents as a mean to generate job opportunities for local communities, develop local economy, increase investments in the area and improve tax revenue earnings, personal income, and economic quality of life (Haralambopoulos and Pizam 1996; Sirakaya et al, 2002; Harrill 2004; Huh and Vogt 2008; Diedrich and Garcia -Buades 2009; Vargas -Sánchez et al. 2011). Conversely, on the negative side, residents seem to perceive an increase in prices of goods and services thus increasing cost of living and an unequal distribution of the economic benefits (Haralambopoulos and Pizam 1996; Andereck and Vogt 2000; Andriotis 2005). The environment, a central theme of tourism, continues to be an important subject of debate in

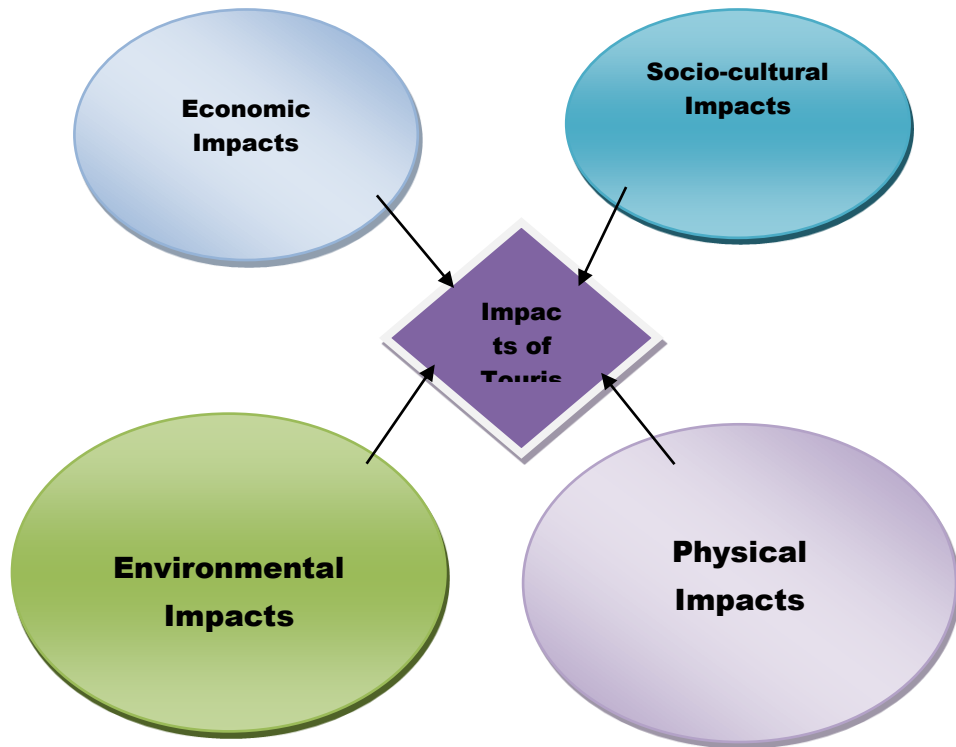
a time when the global policy is aimed at ecological problems such as pollution, depletion of natural resources and deforestation (Kuvan and Akan, 2005). In view of this, the potential of tourism activities in achieving the objectives of environmental preservation and conservation have been widely studied (Jurowski and Gursoy 2004; Andereck et al. 2005). Such studies demonstrate that residents favor tourism promotion because it initiates the creation of more parks and recreation areas, improves the quality of roads and public facilities, stimulate environmental conservation awareness and does not contribute to ecological decline. However, tourism can cause significant environmental damage because it is often developed in areas that have attractive but fragile environments (Andereck and McGehee, 2008). Tourism also causes traffic congestion, parking problems, disturbance and destruction of well -preserved flora and fauna, illegal construction of building such as accommodation and dining units, air and water pollution, and littering (Jurowski and Gursoy 2004; Andereck et al. 2005; Jago et al. 2006). Researchers also suggested that tourism can also impact positively towards socio -cultural aspects of local residents and community by increasing community services, recreational and cultural facilities, performing and participation in cultural events and festivals, cultural exchanges, meeting interesting people, learning about the world and exposing community to new perspectives (McCool and Martin 1994; Brunt and Courtney 1999). Tourism also plays an important role in social and cultural preservation, rejuvenation of traditional culture and promotion of indigenous arts and crafts industries in the region. On the other hand, some studies have identified certain concerns regarding loss of traditional cultures and values, increase in crime, drugs and alcohol abuse, sudden hike in the cost of accommodation and the waiting time to deliver services (Haralambopoulos and Pizam 1996; Andereck et al. 2005; Martin 2008; Diedrich and Garcia -Buades 2009). Tourism also causes a change in local people habits, daily routines, social lives, beliefs, and values. Puczko and Rätz (2000) have emphasized about unplanned tourism development that can lead to a negative change in destinations' socio -cultural and physical characteristics. There have been several other factors identified as influencing residents' attitudes toward tourism such as age (Tomljenovic and Faulkner 1999; Cavus and Tanrisevdi, 2003; McGehee and Andereck, 2004; Pappas, 2008), education (Iroegbu and Chen, 2001), gender (Mason and Cheyne, 2000; Harrill and Potts, 2003; Pappas, 2008), income (Snaith and Haley, 1994; Pappas, 2008), community attachment (Lankford and Howard, 1994; McCool and Martin, 1994; Snaith and Haley, 1994), economic role of tourism (Andereck, et al., 2005; Huh and Vogt, 2008), economic reliance on tourism (Madrigal, 1995; McGehee and Andereck, 2004), involvement in decision making (Madrigal, 1995; Kayat, 2002), knowledge about tourism (Lankford and Howard, 1994; Andereck, et al., 2005), length of tourist stay (McGehee and Andereck, 2004) and personal benefits from tourism (McGehee and Andereck, 2004; Andereck, et al., 2005). Since individuals' needs, understanding and attitudes are generally influenced by their demographical characteristics, these characteristics are considered as major factors that shape their attitudes and perceptions towards further development. Furthermore several theoretical frameworks including Irridex's Model of Doxey (1975) explains that attitudes of locals change over time, becoming more negative as tourism

development and tourism flux increase. The stages of this model are: enthusiasm, apathy, annoyance and antagonism. Butler (1980) model explains the evolution of destination through the stages of exploration, involvement, development, consolidation, stagnation, and decline or rejuvenation. As per the prevailing situation the present tourist circuit comes under apathy stage of Irriidex's model or involvement stage of Butler model. Tourism evolution in present tourism circuit requires mutually acceptable policies and strategies in order to consolidate related stages of destination life cycle. In order to attain effectiveness in development policies and maintain destination life cycle, efforts are to be initiated to examine and analyze the attitudes of local residents. The present study, thus, seeks to add to the literature of rural tourism by investigating the attitudes of residents of Koti -Kanasar, Indroli, Pattayur circuit towards tourism.

### Conceptual Model

#### Tourism Impacts:

- i. **Economic Impacts:** usually seen as positive, contributing to employment, income generation, standard of living, better services, and social stability. Yet these impacts can also contribute to high living costs within the community, pushing local business out of the areas, and raising costs for locals.
- ii. **Socio-cultural Impacts:** associated with interactions between peoples and culture background, attitudes and behaviors, and their relationships to material goods. The introduction of tourists to sensitive areas can be detrimental, cause a loss of culture, or, alternatively, contribute to the preservation of culture and cultural sites through increased resources.
- iii. **Environmental Impacts:** impacts that affect the carrying capacity of the area, vegetation, air quality, bodies of water, the water table, wildlife, and natural phenomena.
- iv. **Physical Impacts:** physical impact of tourism needed careful consideration as impacts can influence a community either positively or negatively. Tourism can create great pressure on local resources like energy, food and other raw materials. Greater extraction and transport of these resources exacerbates the physical impacts associated with the exploitation.



**Figure-1:** A Proposed Model of Impacts of Tourism Development in Sajek Valley

### Objectives

- ✓ To determine attitude of local residents towards economic, socio –cultural, environmental and physical impacts of tourism.
- ✓ To examine the relationships between residents’ demographic attributes and their attitude toward impacts of tourism.

### Methodology

#### a) Research Design Formulations:

This study is a descriptive type of research and data have been collected by using a convenience sampling method. To conduct this study quantitative data have been collected that belongs to descriptive research respectively. The survey questionnaire

consisted of total 32 most vital sample questions that were used to evaluate 150 respondents who have already visited at Sajek Valley.

#### b) Sources of Data

This study is basically descriptive in nature and based on secondary information. Necessary information is gathered from both primary and secondary sources to bring out the research objective. The literature review part of the report is mainly based on *secondary data* which is gathered from the published books, different published research works, newspaper, and magazines, reports of various government authorities, and websites and journals. For the purpose of the study, *primary data* have been collected from local residents at Sajek Valley. A visit has been also conducted by the author during the period From 21 July, 2018 to 22 January, 2019 to collect the relevant information to find out the attitude of local residents towards economic, socio –cultural, environmental and physical impacts of tourism development at Sajek valley.

#### c) Measurement and Scaling techniques

For scaling purpose, the *5-point Likert Scale* of the itemized rating scale (*Noncomparative Scaling*) has been used. Respondents were asked to rate thirty two (32) dimensions on a 5-point Likert Scale from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), strongly disagree (SD).

#### d) Sampling Design & Procedure:

Target population

- ❖ Elements: Both male and female tourists ( age between 15 to above 60)
- ❖ Target Group: Local residents of Sajek valley
- ❖ Time: From 21 July, 2018 to 22 January, 2019

### **Approach to the Problem**

#### **Analytical Model (Mathematical)**

#### **For the Factor Analysis:**

$$F_i = W_1X_1 + W_2X_2 + W_3X_3 + \dots + W_kX_k$$

Where,

$F_i$  = Estimate of the  $i$ th factor

$W_i$  = Weight or factor score coefficient

$K$  = Number of variables



I1= Positive change in local traditional life style	I2=Economic development in local area	I3=Number of jobs for locals	I4= Upgrades social value of local people
I5= Proper preservation and conservation	I6= Variety of cultural activities by local	I7= Substantial tax revenues	I8= Recreational and entertainment facilities
I9= Diversify the local economy	I10= New markets for the local products	I11= Infrastructural facilities (supply of water. sewage. electric etc.)	I12= Shopping facilities
I13= Investment, development and infrastructure spending	I14= Income and standard of living increased	I15= Authenticity of locals lifestyles diminished	I16= Degradation of environmental sustainability
I17= Quality of local services	I18= Cost of living	I19= Unconsciousness of local people about environmental sustainability	I20= Social problems
I21= Pollution increased	I22= Positive interaction between tourists and hosts	I23= Discomfort to welcome tourism businesses	I24= New entrepreneurs increased
I25= Community participation	I26= Damage natural environment and landscape	I27= Poor payment of locals by the tourism business operators	I28=Part time jobs due to seasonal in nature
I29= Expenditures increased	I30= Mutual understanding between local and tourists	I31= Better quality of buildings and city planning	I32= Constructions of tourists facilities

**For the Regression Analysis:**

$$Y= a+b1i1+b2i2+b3i3+..... +bkik$$

Where,

Y= Dependent or Criterion Variable

x= Independent or Predictor Variable

a= Intercept of the Line

b1= Slope of the Line

**Hypothesis and Data Analysis Tools**

For the quantitative analysis, the following hypothesis has been developed:

Hypothesis-1:

H0: There are no correlations among the set of identified factors of tourism development impacts at Sajek Valley that measure local resident's attitudes that means thirty two (32) identified variables are uncorrelated.

H1: The variables are highly correlated.

Hypothesis-2:

H0: No relationship exists among the dependent variable (local resident's attitudes) and the independent variables (obtained uncorrelated factors, i.e. economic impacts, socio-cultural impacts, environmental impacts and physical impacts) that measure local resident's attitudes.

H1: There is relationship among local resident's attitudes towards tourism development impacts and obtained uncorrelated factors.

The final analysis has been performed by using different statistical techniques, namely factor analysis, correlation, multiple regression and descriptive statistics via SPSS 20.0 package program.

## **Results, Discussions and Findings:**

### Factor Analysis

There were thirty two (32) variables, most of which are correlated and which must be reduced to a manageable level. By using factor analysis, the whole set of interdependent relationships among variables have been examined. Using varimax rotation, 32 variables are reduced into four (4) uncorrelated factors having Eigen Value greater than 1.0. *Principle Component Analysis* has been selected to determine the minimum number of factors that will account for maximum variance in the data for use in subsequent multivariate analysis.

### Testing Hypothesis-1: KMO and Bartlett's Test

The null hypothesis, that the thirty two (32) variables are uncorrelated is rejected by the Bartlett's test of sphericity (**Table 1**). A large value of the test statistic favors the rejection of the null hypothesis. From the table, it has been found that the approximate chi-square statistics is 9041.649 with 496 degrees of freedom which is significant at .05 levels. Besides, high values (between .5 and 1.0) of KMO measure of sampling adequacy indicate that the factor analysis is appropriate. Here, as the value of the KMO statistic (**Table 1**) is .920, the factor analysis is considered an approximate technique for analyzing the data.

**Testing Hypothesis-1: KMO and Bartlett's Test****Table-1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	9041.649
	df	496
	Sig.	.000

Initial Eigen values and Extraction Sums of Squared Loadings:

The Eigen value for a factor indicates the total variance attributed to the factor. The total variance accounted by all the thirty two variables is 32, which is equal to the number of variables. Factor 1 account for a variance of 17.718 , which is (17.718 /32) or 55.368% of the total variance. Likewise the next three factors (6.292/32), (2.339 /32), (1.073 /32) account for of the total variance respectively. Here the first three (3) factors combined account for 19.663%, 7.311% and 3.354 % of the total variance. Here, the first four factors combined account for 85.695% of the total variance. The 'Extraction Sums of Square Loadings' shows the variances associated with the factors that are retained. These are the same as under 'Initial Eigen Values'.

**Table- 2: Initial Eigen values and Extraction Sums of Squared Loadings**

Component	Total Variance Explained								
	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	<b>17.718</b>	55.368	55.368	17.718	55.368	55.368	11.776	36.801	36.801
2	<b>6.292</b>	19.663	75.030	6.292	19.663	75.030	8.354	26.106	62.907
3	<b>2.339</b>	7.311	82.341	2.339	7.311	82.341	3.688	11.525	74.432
4	<b>1.073</b>	3.354	<b>85.695</b>	1.073	3.354	<b>85.695</b>	3.604	11.262	<b>85.695</b>
5	.948	2.962	88.656						
6	.610	1.906	90.562						
7	.478	1.493	92.055						
8	.382	1.195	93.249						
9	.299	.935	94.185						
10	.281	.878	95.063						
11	.236	.739	95.801						
12	.213	.666	96.467						
13	.154	.480	96.947						
14	.146	.456	97.402						
15	.116	.364	97.766						

16	.107	.335	98.101
17	.089	.278	98.380
18	.071	.223	98.602
19	.066	.206	98.809
20	.057	.179	98.988
21	.054	.168	99.155
22	.046	.145	99.300
23	.042	.132	99.433
24	.032	.100	99.533
25	.029	.089	99.622
26	.023	.073	99.696
27	.022	.067	99.763
28	.021	.067	99.830
29	.018	.057	99.886
30	.014	.043	99.929
31	.012	.039	99.968
32	.010	.032	100.000

Extraction Method: Principal Component Analysis.

Determining the Number of Factors:

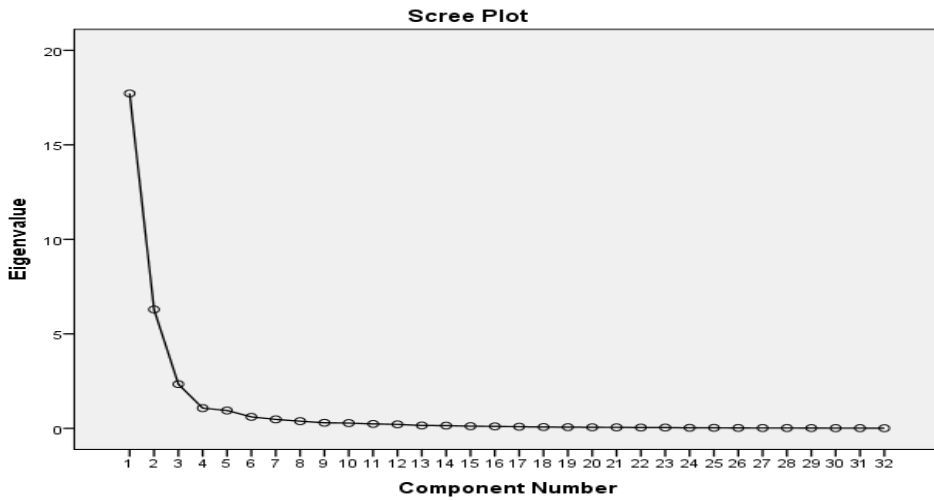


Figure-2: Scree Plot

The numbers of factors have been determined based on several considerations: (i) Eigen Value (only four (4) factors with Eigen values greater than 1.0 are retained, [Table 2]);

(ii) Scree plot ( the plot [Fig. 2] has a distinct break ( at four factors between the steep slope of factors, with large Eigen values and gradual trailing off (Scree) associated with the rest of the factors); (iii) percentage of variance ( the factors extracted should account for at least 60% of the variance and here, the first four (4) factors account for 85.695% of the total variance [ Table 2]).

### Rotated Component Matrix:

**Table-3: Rotated Component Matrix**

	Component			
	1	2	3	4
I1	-.114	<b>.880</b>	.068	-.003
I2	<b>.672</b>	.187	.163	.247
I3	<b>.902</b>	.281	.177	-.128
I4	.202	<b>-.874</b>	.022	-.136
I5	.212	.219	<b>-.595</b>	.228
I6	.183	<b>.935</b>	.000	.048
I7	<b>.815</b>	.087	.283	.186
I8	.267	<b>.899</b>	.212	-.128
I9	<b>.759</b>	.159	.165	.157
I10	<b>-.726</b>	.044	-.461	.398
I11	.264	.092	.384	<b>-.618</b>
I12	<b>.577</b>	.270	.459	.201
I13	<b>.863</b>	.349	.209	-.162
I14	<b>-.551</b>	-.362	-.056	-.350
I15	.482	<b>.722</b>	-.019	.373
I16	-.431	.475	<b>-.525</b>	.248
I17	<b>-.879</b>	-.256	-.258	.086
I18	<b>.902</b>	.116	.245	.013
I19	-.426	.160	<b>-.764</b>	.288
I20	.454	<b>.622</b>	.018	-.247
I21	.130	.253	<b>.586</b>	.074
I22	-.329	<b>-.577</b>	.052	-.011
I23	-.432	<b>-.822</b>	-.392	.410
I24	<b>.755</b>	.392	.333	-.343

I25	.399	<b>.742</b>	-.183	.024
I26	.238	.324	<b>.526</b>	-.002
I27	<b>.875</b>	.313	.182	-.057
I28	<b>.515</b>	.360	.454	.159
I29	<b>-.778</b>	-.423	-.332	.184
I30	-.238	<b>-.584</b>	-.177	.330
I31	-.243	-.283	.087	<b>-.806</b>
I32	.385	.325	<b>.541</b>	-.446

Extraction Method: Principal Component Analysis.  
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

A seven (4) factor solution resulted from the 32 variables, with the factors being labeled as:

<b>Economic Impacts (I1)</b>	I2=Economic development in local area, I3=Number of jobs for locals, I7= Substantial tax revenues, I9= Diversify the local economy, I10= New markets for the local products, I12= Shopping facilities, I13= Investment, development and infrastructure spending, I14= Income and standard of living increased, I17= Quality of local services , I18= Cost of living, I24= New entrepreneurs increased, I27= Poor payment of locals by the tourism business operators, I28=Part time jobs due to seasonal in nature, I29= Expenditures increased
<b>Socio-cultural Impacts (I2)</b>	I1= Positive change in local traditional life style, I4= Upgrades social value of local people, I6= Variety of cultural activities by local, I8= Recreational and entertainment facilities, I15= Authenticity of locals lifestyles diminished, I20= Social problems, I22= Positive interaction between tourists and hosts, I23= Discomfort to welcome tourism businesses, I25= Community participation, I30= Mutual understanding between local and tourists
<b>Environmental Impacts (I3)</b>	I5= Proper preservation and conservation, I16= Degradation of environmental sustainability, I19= Unconsciousness of local people about environmental sustainability, I21= Pollution increased, I26= Damage natural environment and landscape, I32= Constructions of tourists facilities
<b>Physical Impacts (I4)</b>	I11= Infrastructural facilities (supply of water. sewage. electric etc.), I31= Better quality of buildings and city planning

**Correlation**

The study has attempted to investigate the influential impacts factors of tourism development at Sajek Valley that measure local resident’s attitudes. For this reason, the Pearson Moment correlation has been applied in determining the association of each variable. The results are shown in the following table:

		<b>Correlations</b>				
		I33	<b>Economic Impacts</b>	<b>Socio-cultural Impacts</b>	<b>Environmental Impacts</b>	<b>Physical Impacts</b>
Pearson Correlation	I33	1.000	.174	.420	.504	-.175
	<b>Economic Impacts</b>	.174	1.000	.000	.000	.000
	<b>Socio-cultural Impacts</b>	.420	.000	1.000	.000	.000
	<b>Environmental Impacts</b>	.504	.000	.000	1.000	.000
	<b>Physical Impacts</b>	-.175	.000	.000	.000	1.000
Sig.(1-tailed)	I33	.	.017	.000	.000	.016
	<b>Economic Impacts</b>	.017	.	.500	.500	.500
	<b>Socio-cultural Impacts</b>	.000	.500	.	.500	.500
	<b>Environmental Impacts</b>	.000	.500	.500	.	.500
	<b>Physical Impacts</b>	.016	.500	.500	.500	.

**Regression Analysis**

The four (4) factors that have been identified from the factor analysis are used as independent variables (metric) in the regression analysis and the dependent variable (metric) is local resident’s attitudes. In order to examine the predictability of local resident’s attitudes towards the impacts of tourism development at Sajek Valley, multiple regression analysis has been administered. The results are presented in the following table:

**Table 5:** Model Summary & ANOVA (b)

Model	R	R Square	Adjusted R Square	<b>Model Summary</b>		<b>Change Statistics</b>			Sig. F Chan
				Std. Error of the Estimate	R Square Chang	F Chang	df 1	df2	

					e	e			ge
1	.701 <sup>a</sup>	.492	.478	.77438	.492	35.078	4	14	.000
								5	

**a. Predictors:** (Constant), Economic Impacts, Socio-Cultural Impacts, Environmental Impacts And Physical Impacts

ANOVA						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.141	4	21.035	35.078	.000 <sup>b</sup>
	Residual	86.952	145	.600		
	Total	171.093	149			

**a. Dependent Variable:** Local Residents Attitudes

**b. Predictors:** (Constant), Economic Impacts, Socio-Cultural Impacts, Environmental Impacts and Physical Impacts

### Strength of Association

Model summary (**Table-5**) shows that, the *multiple correlation coefficients*, R is .701. That means there are significant positive relationship existing among dependent and independent variables. So local resident’s attitudes are highly correlated with the identified predictors (Economic Impacts (I1), Socio-Cultural Impacts (I2), and Environmental Impacts (I3) And Physical Impacts (I4)).The strength of association in multiple regressions is measured by the *coefficient of multiple determination*, R Square is .492 that means 49% of the local resident’s attitudes is influenced by the impact factors of tourism development at Sajek Valley which is accounted for by the variation in economic impacts, socio-cultural impacts, environmental impacts and physical impacts. It is then adjusted for the number of independent variables and the sample size to account for diminishing returns and the Adjusted R Square is .478 and Standard Error of the Estimate is .77438. The value of Adjusted R Square is close to R Square. This suggests that all the independent variables make a contribution in explaining in local resident’s attitudes.

### Testing Hypothesis-2

#### Significance of the Overall Regression Equation (ANOVA (b))

The F test is used to test null hypothesis for the overall test that the coefficient of multiple determination in the population, R square (pop) = 0. Here R square=.492 which means that the null hypothesis can be rejected. This is equivalent to testing the null hypothesis: H0:  $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ . Analysis of variance (**Table-5**) shows that the overall test is conducted by using an F statistic where, F= 35.078which means the relationship is significant at  $\alpha = .05$  level with 4 and 145 degrees of freedom.  $\beta$ ’s value associated with



each of the independent variables for the model is not same and that means the null hypothesis can be rejected. So, it can be concluded that local resident's attitudes towards tourism development can be explained by economic impacts, socio-cultural impacts, environmental impacts and physical impacts. The explained variables have varying level of influences on forming that have positive or negative impacts on local resident's attitudes towards tourism development at Sajek Valley.

### Significance of the Partial Coefficients (Coefficients (a))

**Table-6:** Significance of the Partial Coefficients (Coefficients (a))

Model		Coefficients			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.293	.063		36.271	.000
	<b>Economic Impacts (I1)</b>	.186	.063	.174	2.933	.004
	<b>Socio-cultural Impacts (I2)</b>	.450	.063	.420	7.097	.000
	<b>Environmental Impacts (I3)</b>	.541	.063	.504	8.521	.000
	<b>Physical Impacts (I4)</b>	-.188	.063	-.175	-2.956	.004

#### a. Dependent Variable: Local Residents Attitudes

The above table presents the regression coefficient of independent variables. Analysis of coefficient shows which independent variables have a significant relationship with the dependent variable as well as the importance of each independent variable. Analysis of the coefficient suggests that impact factors of tourism development at Sajek Valley such as economic impacts, socio-cultural impacts, environmental impacts and physical impacts have a strong influence on local resident's attitudes in Sajek Valley.

To determine which specific coefficients ( $\beta$ 's) are nonzero, the significance of the partial coefficient for all the variables is tested by t-statistics (**Table 6**). The partial regression coefficient for economic impacts (I1) is .186. The corresponding beta coefficient is .174. The value t statistics,  $t = 2.933$ , with 145 degrees of freedom which is significant at  $\alpha = 0.05$ . so from this results, we can see that local residents of Sajek Valley perceived that tourism is an important factor for the economic development of the area which improves local standard of living, increases number of jobs for locals, helps to diversify the local economy, creates opportunities for new markets for the local products, enhances shopping facilities, creates the opportunities for part time jobs (such as waiters, tour guide, photographer, doorkeeper, housekeeper etc.), increases scopes for entrepreneurs of investment, development and infrastructure renovation. The results of the study demonstrate that at a local level there is a strong support for tourism development, particularly due to its economic benefits. Similarly, the partial regression coefficient

for socio-cultural impacts (I2) is .450 with value of beta coefficient is .420 and value of t statistics is 7.097 which is significant also at  $\alpha = 0.05$ . In this factor, the local residents perceived the development of tourism as a factor that provides cultural identity and improves the quality of services, and, indirectly, the standard of living. The local residents also agreed that the development of tourism in their region provides more recreational opportunities and interaction with the tourists can be positive if local residents are provided training to welcome tourists as well as community participation can be a vital mechanism to make good positive relations between local residents and tourists. The partial regression coefficient for environmental impacts (I3) is .541 with value of beta coefficient is .504 and value of t statistics is 8.521 which is significant also at  $\alpha = 0.05$ . Finally, in case of last factor, The partial regression coefficient for physical impacts (I4) is -.188 with value of beta coefficient is -.175 and value of t statistics is -2.956 which is significant also at  $\alpha = 0.05$ . Tourism has both positive and negative impacts on environment. The effects of tourism development on the natural environment and landscape are not perceived as being positive. The community felt that tourism can help improve the local environment which included items such as preservation of natural and cultural resources as well as taking measurements for sustainable tourism development at Sajek Valley. Surprisingly, a small number of residents hardly have any concerns about environmental changes as in their opinion these are very common elements in tourism promotion. Some residents stated, "If we can earn money, it doesn't matter that our environment is damaged a little". Some of the residents considered that the development of tourism is a potential way to increase residents' environmental awareness. On the other hand, few respondents were apprehensive about the use of their agriculture fields for camping sites if the tourist arrivals increased in due course of time. Issues such as traffic congestion, pollution, overcrowded destination, increasing garbage, construction of cemented structures changing local landscape were also pointed out by residents. Therefore physical impacts (I4) should be kept for further research because this is not applicable for our research as well as very less significant in case of influencing local residents attitude towards tourism development. They felt tourism has a negative influence on local services offered, including items such as improvements of roads and public services because the more the constructions (resorts, hotels, restaurants, transportations) has built for the tourists, the more the degradation occurred for the environment that damage sustainability of local residents.

## Descriptive Statistics and Frequency Table

**Table-7:** Descriptive Statistics of Residents Attitudes

	Factors of Tourism Development	Items	Mean	Std. Deviation
<b>Economic Impacts</b>	Tourism plays an important role in the economic development of the area	<b>I2</b>	<b>2.4267</b>	<b>1.18914</b>
	The number of jobs in the community has increased due to tourism development	<b>I3</b>	<b>2.0667</b>	<b>1.35442</b>

	Tourism generates substantial tax revenues in the host economy	<b>I7</b>	<b>2.5333</b>	<b>1.27267</b>
	Tourism helps to diversify the local economy	<b>I9</b>	<b>2.3933</b>	<b>1.26330</b>
	Tourism creates new markets for the local products	<b>I10</b>	<b>3.7333</b>	<b>1.52679</b>
	Tourism creates variety of shopping facilities in the area	<b>I12</b>	<b>2.3400</b>	<b>1.24151</b>
	Tourism development leads to a high level of investment, development and infrastructure spending	<b>I13</b>	<b>1.9933</b>	<b>1.34861</b>
	Tourism helps to generate income and improves locals standard of living	<b>I14</b>	<b>3.7667</b>	<b>1.09555</b>
	Tourism development leads to the quality of local services as well as increases variety of restaurants such as tribal food shops, coffee shop, tea stall, BGB canteen in the area	<b>I17</b>	<b>4.0400</b>	<b>1.38001</b>
	Tourism results in an increase in the cost of living	<b>I18</b>	<b>1.8467</b>	<b>1.31454</b>
	Tourism development helps to increases new entrepreneurs in the local area.	<b>I24</b>	<b>2.1667</b>	<b>1.38746</b>
	Local people are poorly paid by the tourism business operators	<b>I27</b>	<b>1.9133</b>	<b>1.33077</b>
	Local people get part time jobs due to seasonal in nature	<b>I28</b>	<b>2.3133</b>	<b>1.19920</b>
	The personal income of local residents has increased due to tourism development	<b>I29</b>	<b>3.9133</b>	<b>1.50586</b>
<b>Socio-cultural Impacts</b>	Tourism has brought positive change in local traditional life style	<b>I1</b>	<b>2.2267</b>	<b>1.10609</b>
	Tourism upgrades the social value of local people	<b>I4</b>	<b>3.2400</b>	<b>1.29884</b>
	Tourism encourages a variety of cultural activities by local population, e.g., crafts, arts, music	<b>I6</b>	<b>2.1133</b>	<b>.92349</b>
	Tourism creates variety of recreational and entertainment facilities in the area	<b>I8</b>	<b>2.0800</b>	<b>1.41193</b>
	Excessive development of tourism activities diminishes authenticity of locals lifestyles	<b>I15</b>	<b>2.1467</b>	<b>.99924</b>
	Tourism is responsible for creating social problems such as: crime, drug use, prostitution etc. in the community area.	<b>I20</b>	<b>1.8000</b>	<b>1.11728</b>
	Interaction between tourists and hosts creates positive experience	<b>I22</b>	<b>3.7467</b>	<b>1.07558</b>

	Sometimes local people don't feel comfortable to welcome tourism businesses	I23	4.0533	1.40844
	Full participation of everyone in the community in tourism related decisions is a must for successful tourism development	I25	2.3667	1.20634
	Mutual understanding is increased between residents from different people and cultures (cross culture)	I30	4.0000	1.35111
<b>Environmental Impacts</b>	There is a lack of proper preservation and conservation of nature, historical places	I5	3.3200	1.27611
	Tourism causes overcrowding problems for residents as well as degrades environmental sustainability	I16	3.5067	1.29401
	Local people are very unconscious about environmental sustainability in local area	I19	3.3600	1.39163
	Tourism development causes pollution (air, water, land)	I21	2.4467	1.15006
	Excessive development of hotels and resorts damage natural environment and landscape	I26	2.4800	1.15695
	Constructions of tourists facilities destroys the environmental sustainability	I32	2.0267	1.57133
<b>Physical Impacts</b>	Tourism enhances utilities infrastructure (supply of water, sewage, electric etc.)	I11	1.6467	1.22138
	There is better quality of buildings and city planning	I31	2.2600	1.03904

The descriptive statistics of resident's attitudes results of the variables are presented in **Table-7**. the perceived impacts of tourism development and it was measured by 32 impacts factors categorized into four major categories namely economic, socio –cultural, environmental and physical impacts. The results of mean indicate that some items have stronger effect on local residents attitude towards tourism development than others, while some of them were positive and negative. The results show that the majority of the respondents are in favor of greater tourism development in Sajek Valley owing to the positive benefits to be gained from such development. Here, respondents perceived that tourism development helps to diversify the local economy of Sajek Valley (**2.3933**), part time jobs has also increased (**2.3133**) as well. At the same timelocal can generate their income through engaging tourism activities and improves their standard of living (**3.7667**).In other side, they perceived that creation of new markets can be threatening for the local (**3.7333**) as well as quality of local services are not up to the mark and that should be increased (**4.0400**). Personal income of local residents is not at standard level (**3.9133**).

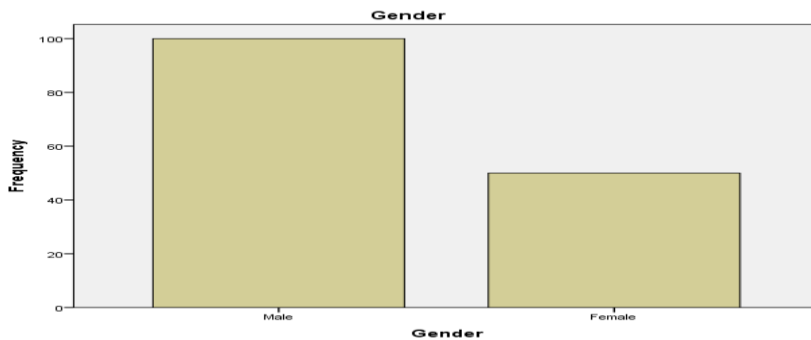
Concerning socio-cultural impacts of tourism, respondents believed that tourism development brought positive change in local traditional life style (2.2267) and tourism at Sajek valley encourages a variety of cultural activities by local population, e.g., crafts, arts, music (2.1133). On the other hand, Interaction between tourists and hosts are not positive (3.7467). Even sometimes local people don't feel comfortable to welcome tourism businesses (4.0533). With respect to environmental impacts, respondents perceived that tourism development may negatively affect overcrowding problems for residents as well as degrades environmental sustainability (3.5067) as well as excessive development of hotels and resorts damage natural environment and landscape (2.4800). so various strategies such as carrying capacity and visitors management program (VMP) should be taken to ensure environmental sustainability. Finally, concerning physical impacts of tourism, residents perceived that tourism development may enhance utilities infrastructure (supply of water. sewage. electric etc.) (1.6467)

**Frequency Table**

There have been considerable factors identified as influencing residents' attitudes toward tourism development. The demographic characteristic of the residents is one of the determinant factors that generally influence the attitude towards emerging impacts. This study examines the influence of demographic factors of local residents on their perceived impacts of tourism development.

**Table-8: Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	100	32.7	66.7	66.7
	Female	50	16.3	33.3	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
Total		306	100.0		

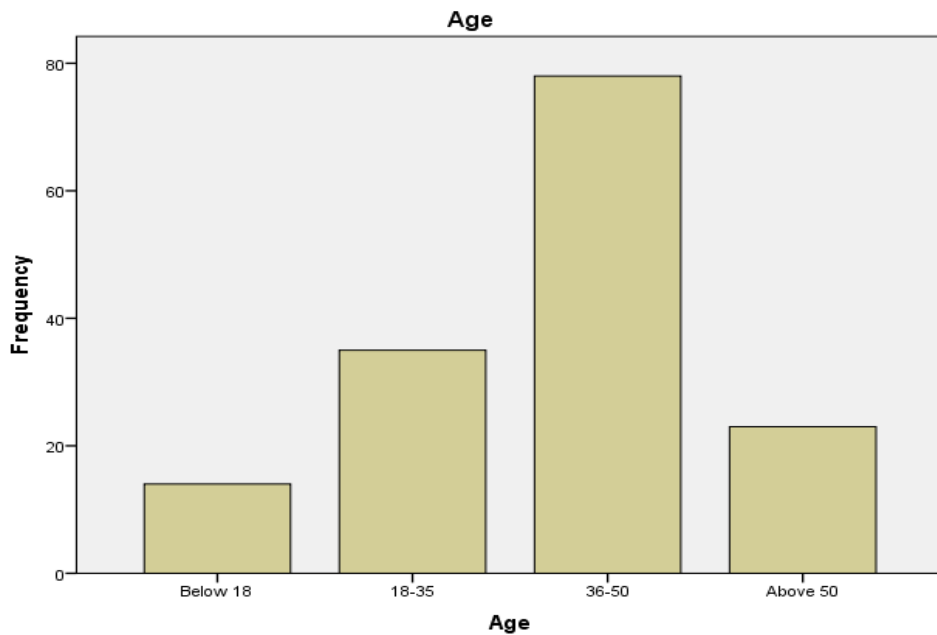


**Figure-3: Bar Chart**

Among 150 local residents of Sajek valley, 100 were male and 50 were female that is shown in table-8 and figure-3.

**Table-9: Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 18	14	4.6	9.3	9.3
	18-35	35	11.4	23.3	32.7
	36-50	78	25.5	52.0	84.7
	Above 50	23	7.5	15.3	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
	Total	306	100.0		

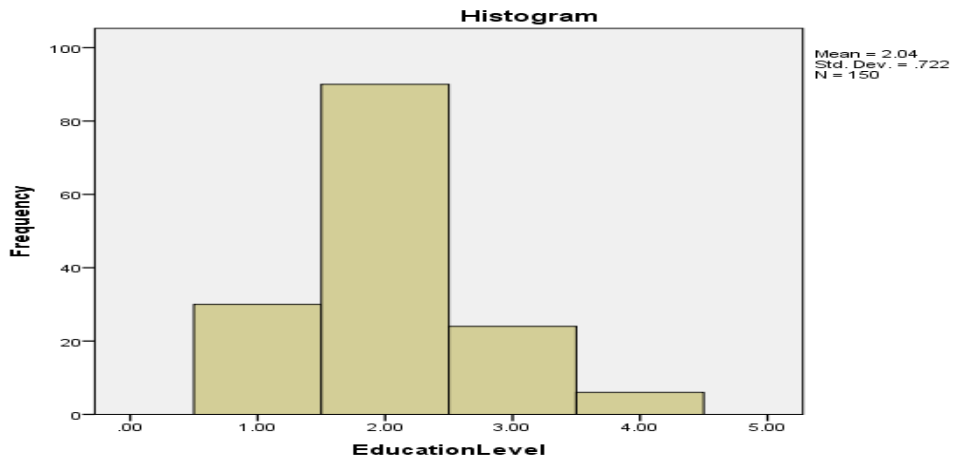


**Figure-4: Bar Chart**

Among 150 local residents of Sajek valley, 4.6% age group belongs to below 18, 11.4% age group belongs to 18-35, 25.5% age group belongs to 36-50 and 7.5% age group belongs to above 50 that is shown in table-9 and figure-4.

**Table-10:** Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No schooling	30	9.8	20.0	20.0
	Primary studies	90	29.4	60.0	80.0
	Secondary studies	24	7.8	16.0	96.0
	University studies	6	2.0	4.0	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
	Total	306	100.0		



**Figure-5:** Histogram Chart

Among 150 local residents of Sajek valley, 9.8% respondents had no schooling, 29.4% had primary studies, and 7.8% had secondary studies and only 2% had university degrees is shown in table-10 and figure-5.

**Table-11:** Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	121	39.5	80.7	80.7
	Unmarried	29	9.5	19.3	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
	Total	306	100.0		

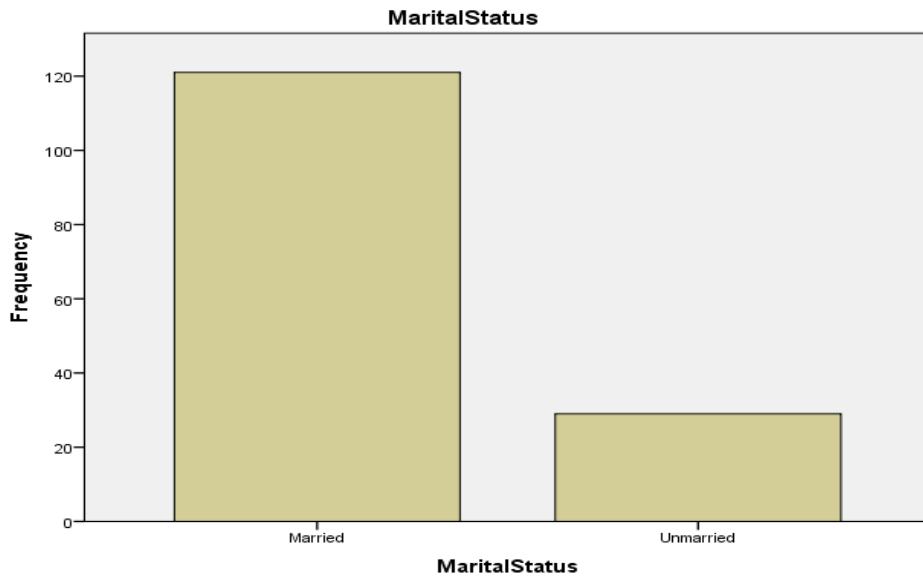


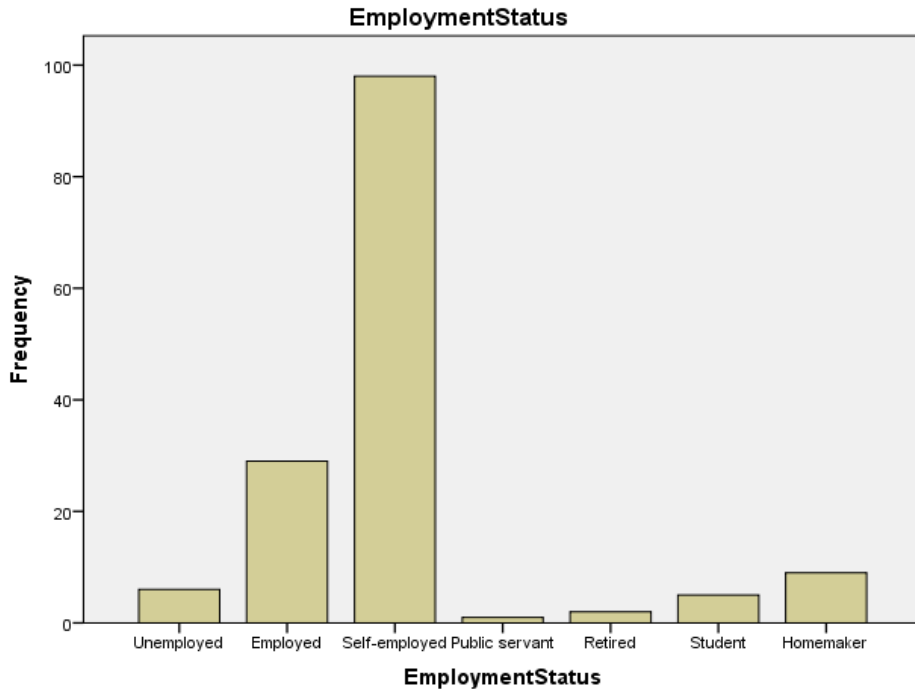
Figure-6: Bar Chart

Among 150 local residents of Sajek valley, 39% were married whereas 9.5% were unmarried is shown in table-11 and figure-6.

Table-12: EmploymentStatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unemployed	6	2.0	4.0	4.0
	Employed	29	9.5	19.3	23.3
	Self-employed	98	32.0	65.3	88.7
	Public servant	1	.3	.7	89.3
	Retired	2	.7	1.3	90.7
	Students	5	1.6	3.3	94.0
	Homemaker	9	2.9	6.0	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
Total	306	100.0			



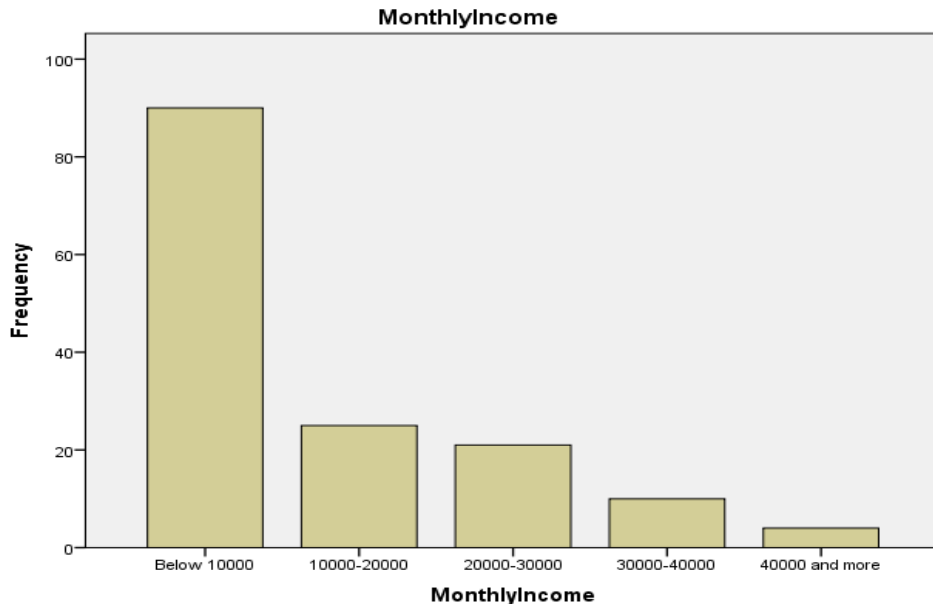


**Figure -7: Bar Chart**

Among 150 local residents of Sajek valley, 2% were unemployed, 9.5% were employed, 32% were self-employed, 0.3% were public servant, 0.7% were retired, 1.6% were students and 2.9% were homemaker is shown in table-12 and figure-7.

**Table-13: Monthly Income**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 10000	90	29.4	60.0	60.0
	10000-20000	25	8.2	16.7	76.7
	20000-30000	21	6.9	14.0	90.7
	30000-40000	10	3.3	6.7	97.3
	40000 and more	4	1.3	2.7	100.0
	Total	150	49.0	100.0	
Missing	System	156	51.0		
	Total	306	100.0		



**Figure-8:** Bar Chart

Among 150 local residents of Sajek valley, 29.4% earned below 10000tk. monthly, 8.2% earned 10000-20000 tk. Monthly, 6.9% earned 20000-30000 tk. Monthly and 3.3% earned 30000-40000tk. Monthly and only 1.3% earned 40000 and more tk. monthly that is shown in table-13 and figure-8.

### **Recommendations:**

1. “Community participation” training should be given to local residents to educate them about economic impacts, Socio-cultural impacts, environmental impacts, physical impacts of tourism and locals should be encouraged in various tourism related activities such as hotels operations, restaurant businesses, park management, photography, cng driving, bike riding, tour guide etc.
2. “Tourism Carrying Capacity” and Visitor Management Program” (VMP) tools should be known by the local residents to ensure preservation of natural resources for both current and future generations.
3. Local community should be properly educated to preserve their natural resources.
4. There are many types of tribal are living in Sajek Valley as they posses different types of culture norms, languages. So locals should be properly trained to

respect and welcome tourists. By proper training unexpected complexity can be avoided between local residents and tourists.

5. Effective participative working network should be introduced between public and private sector is a must. Local people should be involved with them.
6. Government should take several initiatives by organizing several types of training program for both local male and female workers to create entrepreneurs and also awareness should be introduced among them.
7. Various Private organizations and NGO should come forward to establishing educational institutions and medical facilities to reduce the illiteracy rate among the local community at Sajek valley.

### **Conclusions**

The research objectives were to investigate local residents' attitudes towards tourism impacts variables and to explore their influence on the tourism development in Sajek Valley. The results of this research indicate that local residents perceived tourism development positively. The local residents perceived greater level of economic gain and hence perceived the impact of tourism development to be positive. They especially felt that tourism has positive effects on the local economy, such as improving the economy, creating job opportunities (part time, full time), improving standards of living, reducing poverty and hunger level and they also agreed that tourism can result in a number of quality-of-life improvements. For local residents, tourism is seen as an opportunity to enhance the wellbeing of the community in general, and particularly their own. The local residents are willing to support sustainable tourism development if the personal benefits perceived are important. The greater the perceived economic, socio-cultural, environmental and physical benefits, the higher the support is from the local community in building future tourism strategies. However, the study findings further showed that the local residents have concern for the environment. Recognizing the seriousness of ecological problems, the community has become increasingly environmentally conscious. It could be that the local residents are conscious of the possible drawbacks of hotel and resorts constructions at the detriment of environmental sustainability. The results show that local residents see tourism as an income generator, but at the same time they understand the importance of planning and managing tourism destinations sustainably. The local community, as an important stakeholder within the tourism sector, becomes a key element in developing future tourism strategies.

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# ACCOUNTING INFORMATION SYSTEMS (AIS) AND EFFECTIVE PERFORMANCE: THE CONTEXT OF SELECTED PHARMACEUTICALS COMPANIES IN BANGLADESH

Rehana Fowzia‡

## Abstract

*Information age has changed the way in which traditional accounting systems work. AIS have tended to historically mirror the development trend from the years of the manual accounting processes. AIS can generate several types of information including accounting and non-accounting information for enhancing organizational performance. The aim of this study is to investigate the value of accounting information systems (AIS) for effective performance in top ten pharmaceutical companies of Bangladesh in 2018 (according to the performance shown in annual reports, 2017). In this study it is assumed that the effective performance is a function of the financial performance (quantitative), performance management and organizational performance (qualitative). The findings from empirical data show that on an average the AIS is effective in top ten pharmaceutical companies in Bangladesh. Also there is a strong relationship between AIS and financial performance, between AIS and performance management and between AIS and organizational performance. Indeed, Accounting Information Systems (AIS) is vital to all organizations to improve organizational performance.*

**Keywords:** *Accounting information systems (AIS), Financial performance, Performance management, Organizational performance, Pharmaceutical companies.*

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## Introduction

Accounting Information Systems (AIS) are a tool which, when incorporated into the field of Information and Technology systems (IT), are designed to help in the management and control of topics related to organization's economic-financial area. But the stunning advance in technology has opened up the possibility of generating and using accounting information from a strategic viewpoint (El Louadi, 1998).

The effectiveness of an organization depends upon how well the information system performs its functions. It is an assembly of several sub systems of AIS which deal with data collection, transaction, processing, validating, analyzing and storing the information in databases. It is designed within a framework that emphasizes profit planning, performance planning and control at all levels.

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Largely, the quality of information depends on the reliability, form of reporting, timeliness and relevance to the decisions. Effectiveness of AIS also depends on the perception of decision makers on the usefulness of information generated by the system to satisfy informational needs for operation processes, managerial reports, budgeting and control within the organization (Nwinee et al., 2016).

Some researchers (e.g., Masa'deh, Tayeh, Al-Jarrah & Tarhini, 2015) argued that since the Accounting Information Systems (AIS) have been an important concern to the business community (Abbasi et al., 2015; Masa'deh, 2013; Shannak et al., 2010), as it is not only helps firms recognize the potential benefits from investments in IT (Alkalha et al., 2012; Altamony et al., 2012), but also improves the business performance (Abu-Shanab et al., 2015). However, it is known that no single measure of performance could fully account for all aspects of firm performance (Ibrahim et al., 2010; Masa'deh & Shannak, 2012; Obeidat et al., 2013). Moreover, although firm performance has been assessed using a diversity of measures, there is no universal guideline regarding the appropriate choice. Researchers measure performance objectively and/or subjectively, where objective measurements depend upon profit and financial data, and subjective measurements rely on managerial assessments. On the other hand, some researchers used both methods to ascertain firm performance, which enhances the reliability of their conclusions.

Prior researches have shown that accounting information systems adoption does increased firm's performance, profitability and operations efficiency in Malaysia, Spain, Finland, Pakistan and Iran (S. Kharuddin, Z. Ashhari and Nassir, 2010; E. Grande, R. Estebanez and C. Colomina, 2010; Gullkvist, B., 2002; R. Kouser, A. Awan, G. Rana and F. Shahzad, 2011; H. Sajady, M. Dastgir and H. Hashem Nejad, 2008). In United Arab Emirates (UAE) information society and the new computer tools have allowed the companies to make better use of their accounting systems in their relations with suppliers and customers. In the same way the development of the AIS and electronic banking allows the companies to save a lot of time in their transactions ([www.ameinfo.com](http://www.ameinfo.com)). Thus, the present study attempts to provide some clarification of the relationship between AIS design and performance especially on financial performance (quantitative), performance management and organizational performance (qualitative) in top ten pharmaceutical companies of Bangladesh in 2018 (according to the performance shown in annual reports, 2017).

The structure of this article is as follows: Section 2 reviews the relevant literature and develops hypotheses about relationships between AIS design and performance especially on financial performance (quantitative), performance management and organizational performance (qualitative). Section 3 describes the empirical methodology. Section 4 presents the results from the statistical analyses of hypotheses. Finally, section 5 presents the conclusion of this study, provides the limitations of the current study, and points out some directions for further research.



## Literature Review

Sambasivam and Assefa (2013) evaluated the effectiveness of AIS on the performance of Ethiopian manufacturing industries. The results revealed that AIS design and implementation enhanced the quality of financial reports and financial transaction processes which led to better decision making by managers and brought efficiency in internal control systems. Samuel (2013) in the project entitled, "Impact of Accounting Information Systems On Organizational Effectiveness Of Automobile Companies in Kenya" found out the impact of Accounting Information Systems on the organizational effectiveness in selected Automobile Companies in Kenya. The findings of the study showed that there was a relationship between AIS and organizational performance.

Ahmad and Alrjoub (2014) in the research paper entitled, "The Extent of the Application of the Commercial Banks in Aqaba for Modern Methods of Accounting Information Systems" examined the relationship of accounting information systems on the performance of commercial banks and found that accounting information systems had a significant impact on administrative

decisions taken by managers in selected banks. Odero (2014) did a research with the objective of establishing the consequence of AIS quality on firm's financial performance of SMEs. The researcher concluded that there was a very strong positive connection between AIS quality with financial performance of SMEs.

Onaolapo, A. and Odetayo, T. (2015) examined the effect of accounting information system on organizational effectiveness with special reference to selected construction firms in the Ibadan metropolis. Specifically, the study examined the effects of accounting information on quality of financial reports and decision-making. The results showed that accounting information systems had an effect on organizational effectiveness.

Ali, Bakar and Omar (2016) carried a study with the objective of investigating the effect of Accounting Information Systems (AIS) on organizational performance and the moderating effect of organizational culture in the relationship between AIS success factors and organizational performance in the Jordanian banking sector. This study evidenced that organizational culture helped to increase performance by interacting with information quality, data quality and system quality.

Khan (2017) in the research titled, "Impact of Accounting Information System On The Organizational Performance: A Case Study Of Procter And Gamble" examined the impact of accounting information systems on the organizational performance in Procter and Gamble. The findings highlighted that there was a significant impact of accounting information systems on the organizational performance in the company under study.

Rehab (2018) investigated the impact of AIS on organizational performance (cost reduction, improving quality and effective decision making) in Saudi's SMEs. Findings proved that using an AIS had a significant impact on organizational performance

generally and on all its dimensions including cost reduction, improving quality and effective decision making.

Al-Dalaien and Khan (2018) conducted a research to examine the impact of accounting information system on the financial performance of selected real estate companies in Jordan. The findings highlighted that there was a significant impact of accounting information systems on the financial performance in the company under study.

## Research Design

### Objectives of the study:

- To measure the effectiveness of AIS in top ten pharmaceutical companies of Bangladesh.
- To assess the relationship between AIS and financial performance (quantitative) in top ten pharmaceutical companies of Bangladesh.
- To evaluate the relationship between AIS and performance management in top ten pharmaceutical companies of Bangladesh.
- To appraise the relationship between AIS and organizational performance (qualitative) in top ten pharmaceutical companies of Bangladesh.

### Hypothesis of the study:

- $H_1$  = AIS is effective.
- $H_2$  = There is a relationship between AIS and Financial performance.
- $H_3$  = There is a relationship between AIS and Performance management.
- $H_4$  = There is a relationship between AIS and Organizational performance.

### Research Methodology of the study:

- Sample size :  
This study has considered total 10 pharmaceutical companies in Bangladesh which are in top position in 2018 according to the performance shown in annual reports, 2017. These are:
  1. Square Pharmaceuticals Ltd.
  2. Incepta Pharmaceuticals Ltd.
  3. Beximco Pharmaceuticals Ltd.
  4. Renata Ltd.
  5. Opsonin Pharma Ltd.
  6. Eskayef Bangladesh Ltd.
  7. ACI Ltd.
  8. Aristopharma Ltd.
  9. Healthcare Pharmaceuticals Ltd.
  10. ACME Laboratories Ltd.

- Data collection:

This study is mainly based on primary data. A structured survey questionnaire has been used. In the questionnaire, 7-point likert measurement scale has been applied where 7 indicates “strongly agree” and 1 indicates “strongly disagree.” Secondary sources are different local and international published articles, websites, seminar papers dealing with AIS.

- Data analysis:

Data have been analyzed by reliability test and one sample t test.

- Study period:

Time period of the study was April to June, 2018.

## **Empirical result and Analysis of the data**

### Description of the Demographic Profile of the Sample:

According to the results of the demographic part of the questionnaire, the summary information about the profile of the respondents is : in terms of education, 5 percent of the respondents had PhD/Professional degree, 50 percent had Masters degree and 45 percent had Bachelors degree. To conclude, majority of participants in this study had Masters degrees. In terms of experience, 25 percent of the responses had less than 4 years, 50 percent had between 5 to 9 years and 25 percent had more than 10 years of experience.

### Measurement variables and Testing hypothesis:

#### Variables under AIS:

- The data storage contributes to the integrity of the financial reporting process.
- The data storage in sufficient details to accurately and fairly reflect company asset.
- The implementation of data collection could save shareholder’s money and time.
- Data processing has capable of making a difference in a decision by helping managers to form predictions about the outcomes of past, present, and future events to evaluate financial performance in organization.
- Data processing caused the improvement of the quality of the financial reports and facilitated the process of the company’s transactions.
- The automated data collection speed up the process to generate financial statements and overcome human weaknesses in data processing.

#### Variables under Financial Performance:

- Return on Investment = (Gain from investment – Cost of investment) ÷ Cost of investment.
- Return on Asset = Net income ÷ Total assets
- Return on Equity = Net income ÷ Shareholders' equity
- Profit Margin = (Net income ÷ Revenue) × 1

Variables under Performance Management:

- Lower labor cost.
- Lower reporting cost.
- Increase to retain valued employees.
- To increase company's competitive position.
- To speed up interactive control systems.

Variables under Organizational Performance:

- Effective inventory management.
- Increase employees' quality and contribution.
- Increase mandatory social responsibility performance.
- Increase voluntary social responsibility performance.
- Increase employee stewardship.

The Cronbach's Alpha is used to measure the reliability of the instruments. According to Sekaran (2003), in general, reliability coefficient less than 0.60 are considered as poor, those in the range of 0.70 are acceptable and those above 0.80 are considered as good. The result of the reliability test (Table-1) is as follows:

**Table-1: Reliability Statistics**

Measures	Cronbach's Alpha	N of items
AIS	.9254	6
Financial Performance	.8412	4
Performance Management	.7161	5
Organizational Performance	.6200	5

According to Flynn (1992), the effectiveness of AIS can be received providing management information to assist concerned decisions with regard to the successfully managing of corporations. To measure the effectiveness of AIS, six (6) variables have been considered. The results (Table-2) show that the implementation of AIS is effective in sample companies at 5% level of significance.

**Table-2: Effectiveness of AIS**

Statements	Significance
The data storage contributes to the integrity of the financial reporting process.	.001
The data storage in sufficient details to accurately and fairly reflect company	.001

asset.	
The implementation of data collection could save shareholder's money and time.	.043
Data processing has capable of making a difference in a decision by helping managers to form predictions about the outcomes of past, present, and future events to evaluate financial performance in organization.	.001
Data processing caused the improvement of the quality of the financial reports and facilitated the process of the company's transactions.	.007
The automated data collection speed up the process to generate financial statements and overcome human weaknesses in data processing.	.007

Financial managers need the financial and accounting data provided by AIS to evaluate the firm's past performance (such as ROI, ROA, ROE and profit margin) and to map future plans. According to Table-3 the hypothesis  $H_2$  examines the link between AIS and financial performance. AIS is significantly related to the financial performance of sample companies. Therefore, the second hypothesis is accepted. It means accounting information systems cause to have better financial performance.

**Table-3:** Relationship between AIS and Financial performance

Financial performance	Significance
Return on Investment (ROI)	.042
Return on assets (ROA)	.001
Return on equity (ROE)	.010
Profit margin	.001

With reference to Table - 4, the hypothesis  $H_3$  is also accepted because there is a strong relationship between AIS and performance management at 5% level of significance regarding four cases except lowering labor cost. The reason behind it is the most portion of the total labor cost is fixed.

**Table-4:** Relationship between AIS and Performance management

Performance management	Significance
Lower labor cost.	.444
Lower reporting cost.	.001
Increase to retain valued employees.	.001
To increase company's competitive position.	.001
To speed up interactive control systems.	.001

As Table-5 shows, the hypothesis  $H_4$  is acceptable. It means that there is a positive relationship between AIS and organizational performance. Thus, it can be said that AIS improves both quantitative performance as well as qualitative performance simultaneously.

**Table-5:** Relationship between AIS and Organizational Performance

<b>Performance management</b>	<b>Significance</b>
Effective inventory management.	.041
Increase employees' quality and contribution.	.001
Increase mandatory social responsibility performance.	.001
Increase voluntary social responsibility performance.	.013
Increase employee stewardship.	.001

### **Conclusions and Suggestions for Further Research**

From generalization of the results, measuring research objectives based on the opinions of the respondents, it is found that on an average the AIS is effective in top ten pharmaceutical companies in 2018 of Bangladesh. Also there is a strong relationship between AIS and financial performance, between AIS and performance management and between AIS and organizational performance. It is highly admissible that at present, without using technology, effective performance is not possible. The findings also imply that nowadays pharmaceutical companies have a strong tendency to use information technology to improve their both financial and non-financial performance.

Like all empirical studies, the present study also has its own limitations due to the methodology employed. Use of questionnaire to collect data always has also its own limitations, since responses could be biased because of the thinking of their own organization's image. Despite the above limitations, this research has provided useful information in paving the way for future research in this area. Since in Bangladesh, recently increasing demand for AIS, as an effective tool in managing the organizations, has prevailed, this research could provide a supportive evidence for the implementation of AIS. Therefore, avenues for future research could be the effects of user participation on the implement of AIS, analysis of effectiveness of AIS on performance.

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**THE IMPACT OF PROMOTION ON THE JOB  
SATISFACTION:  
A STUDY ON PRIVATE UNIVERSITY TEACHERS IN  
BANGLADESH**

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## THE IMPACT OF PROMOTION ON THE JOB SATISFACTION: A STUDY ON PRIVATE UNIVERSITY TEACHERS IN BANGLADESH

### Abstract

*The present study aimed at assessing the relation between level of job satisfaction and promotion among university faculty members in private universities of Bangladesh. The sample of the study comprised of 384 faculty members are selected from 22 private universities of Dhaka, Bangladesh by using non-probability convenient sampling technique. As hypotheses, linear regression results indicated that there is a positive weak relationship between promotion and job satisfaction. However, Researchers suggested some recommendations to enhance high satisfaction among faculty members in order to retain their best talents for the betterment of the university.*

***Key Words:*** Promotion, Job Satisfaction, Teachers, Private University, Bangladesh

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### Introduction

In Bangladesh, more universities, both public and private, were established to meet the growing or exploring the demand for higher education. Today, there are 42 public Universities, 93 private universities and two foreign universities (UGC of Bangladesh, January, 2018) offering services for the potential faculty members. The role of faculty members is very vital to the university in raising quality education and producing first-rate graduates. But, the ability to hire and retain effective faculty remains a serious problem for institutions of higher education (Wong and Heng, 2009). Academicians have their own professional, occupational and personal interests in relation to their universities, including autonomy, recognition, work-life balance, pay, promotion and so on (Noraani, M. & Zaizura C.Z., 2013). These all issues are directly or indirectly linked with the job satisfaction which has significance impact on the performance of faculty members. Wood (1976) asserts, “*the health of an educational institution depends on the job satisfaction of its employees*” (p. 58). Typically, job satisfaction is conceptualized as a general attitude toward the job. Locke (1976, p. 1300) defined job satisfaction as “*a pleasurable or positive emotional state, resulting from the appraisal of one's job experiences*”. Weiss (2002, p. 175) defined job satisfaction as “*a positive (or negative) evaluative judgment one makes about one's job or situation*”.

The basic purpose of the human resource management is to improve the employee's satisfaction towards job in a well manner. The employees are supposed to be satisfied when they feel happiness in their jobs (Malik et al. 2012). So, it can be argued that a happier workforce can have a productive contribution in any organization (Bowles et al.,

2001). On the other hand, we know that job dissatisfaction leads employees toward absenteeism, low morale, job turnover etc. That's why job satisfaction of employee is very important aspect for any institution or concern to stay alive and prosper (Bellemare et al., 2006). Many researchers investigate the association between job satisfaction and its affecting aspects as an important area of research. In the past large number of such studies have carried out (Bartel, A.P. 1981).

As we know, job satisfaction is influenced by a lot of variables. Promotion is one of the important aspects of employee's life and which is one of the key parameter of success for employees (Silver, Dennis, and Spikes 1988). Markham, Harlan, and Hackett (1987, p. 226) note that "*viewed from a human resources management perspective, promotion enhances human capital and deploys it more effectively, thereby improving job performance and increasing satisfaction and commitment*".

Simply, Promotion is a upgrading of employee for a job of higher position and higher compensation. Edward P. (1986) defines promotion as "*The movement of an employee upward in the hierarchy of the organization, typically that leads to enhancement of responsibility and rank and an improved compensation package.*" Another definition of promotion is "*the reassignment of an employee to a higher-rank of job* (McCausland et al., 2005)."

Locke explains the relation between job satisfaction & promotion in a unique way as "*Satisfaction with promotions can be viewed . . . as a function of the frequency of promotion in relation to what is desired and the importance of promotion to the individual*" (Locke 1976, p. 1323).

Different organizations use promotion as a rewarding tool for high productivity to bring out the best efforts from the employees (Malik et al., 2012). Moreover, Promotion is such a arrangements which can contribute to retaining, motivating employees to perform thus helps to reduce costs of recruiting, training, and turnover (Becker, 1975; Doeringer & Piore, 1971; Stinchcombe, 1983; Williamson, 1975). Consequences of promotion for a individual employee included increased wages, training opportunity, supervisory responsibilities, and increased job satisfaction (Michael R. P. and Jonathan R. V., p.581)

It is such a way of rewarding employees which serves as a mean of synchronizing organizational goals with personal goals (Lazear & Rosen, 1981). So, above arguments clearly showed the evidence the strong relationship between job satisfaction and promotion. However, there were few studies carried in Bangladesh regarding the overall job satisfaction state of university teachers. But, there is no such particular research was carried which showed the relationship of job satisfaction with any particular variable/factor(s), particularly promotion. Promotion is often an important issue in Bangladeshi private universities as it is observed that, promotion is often denied, delayed and conditional in many cases in most of the private universities. It leads spontaneous job turnover, low morale, low commitment and unexpected performance. Despite all these important aspects, still there is gap of such research in Bangladesh. But; such research

has immense significance to both academicians and practitioners. Thus study aims at to show the relationship between promotion and job satisfaction in the field of private universities in Bangladesh.

### **Literature Review**

Many researchers have pointed out that, there is a direct positive association between promotion and job satisfaction (McCausland et al., 2005). The reliance of the positive correlation between promotion and job satisfaction is on perceived justice by employees.

Researches by groups of researchers (Zainuddin, A., Junaidah H. A. & Nazmi, M. Z., 2010; Danish, R. Q. & Usman, A., 2010; Ssesanga, K., & Garrett, R., 2005; Santhapparaj, A. S., 2005) found a positive significant relationship between opportunities for promotion and job satisfaction.

As the study of Khalid, S. & Irshad, M. Z. & Mahmood, B. (2011) indicated that faculty members of private universities were more satisfied with promotion than the faculty members of public university.

Wan, H., Sulaiman, M., & Omar, A. (2012) argued that if employees perceived promotion decisions as fair are more likely to be more committed, satisfied, high morale and have a lower intention to leave. Now days, many faculty members are leaving the institutions because of having unequal promotion opportunities as offered by the university.

Malik, Danish, & Munir (2012), indicated that the job satisfaction of university faculty members (N = 200) is affected by promotion opportunities faculty members of private universities were more satisfied with promotion. But, promotion had comparatively less impact with other factors on job satisfaction.

Noraani, M. & Zaizura C.Z., (2013) conducted a study to determine the impact of promotion on job satisfaction among 320 lecturers in four public universities in Kelantan, Malaysia. The result indicated that there was a positive significant relationship between promotion and job satisfaction.

Zaman et al. (2014), conducted a research regarding overall level of job satisfaction of private university teachers of Bangladesh, where one question was on promotion out of 18 questions. They found that, respondent had agreed the positive relationship between promotion and job satisfaction. 70% respondents were satisfied with promotion.

Zahid N., Aman U. K., Imran N. (2015) “conducted a study to determine the impact of promotion and job advancement on job satisfaction in universities of KPK province of Pakistan. The study selected 94 faculty members from 10 universities including 5 each from private and public sector universities and revealed that, there was a positive relation between promotion and job satisfaction.

Petros W. F. & Dawit T.B. (2016) lamented that, there is a positive relationship exists between job satisfaction and promotion although the relationship is small compared to the other variables considered in that study.

Asan & Wirba, (2017) conducted a study on faculty members (N = 30) from different universities in the Eastern Province of Saudi Arabia. They tested almost thirteen variables including promotion to examine the association with job satisfaction. The study reveals that, there is a positive relationship between job satisfactions with promotion.

Based on the review of literature, it directs that, there is a positive relationship between faculty job satisfaction and promotion opportunity.

So, therefore this study proposes that:

**Ha:** There is positive relationship between promotion opportunity and job satisfaction.

**Table 01:** Summarized literature review

SL No.	Study	Population	Samples	Results
1.	Ssesanga & Garrett, (2005)	Lecturers of Universities in Uganda	N = 182	Promotion have Positive significant relationship
2.	Santhapparaj, A. S., (2005)	Academic staff in private universities in Malaysia	N = 173	Promotion have positive effect on job satisfaction
3.	Khalid, S. & Irshad, M. Z. & Mahmood, B. (2011)	academicians in selected universities of Province Punjab, Pakistan	N = 108	Promotion have positive effect on job satisfaction
4.	Malik, Danish, & Munir, (2012)	Educational staff in public and private universities in Punjab, Pakistan	N = 200	Promotion had comparatively less impact on job satisfaction
5.	Noraani, M. & Zaizura C.Z., (2013)	Faculty members from four public universities in Kelantan, Malaysia	N= 320	Positive significant relationship between promotion and job satisfaction.
6.	Zaman et al. (2014),	Full time faculties of 9 private universities of Bangladesh	N= 60	Positive significant relationship between promotion and job satisfaction.
7.	Zahid N., Aman U. K., Imran N. (2015)	Faculty members from 10 universities including 5 each from private and	N = 94	Positive relation between rewards and job satisfaction.

8.	Petros W. F. & Dawit T.B. (2016)	public sector of KPK province of Pakistan Public Institutions of Higher Education, Eritrea	N = 96	Relationship is small compared to the other variables considered in that study. have positive impact on job satisfaction
9.	Asan & Wirba, (2017)	Academic staff from different institutions in the Eastern Province of Saudi Arabia	N = 30	

### Objectives of the Study:

The general objective of the study is to identify the impact of promotion on job satisfaction of private university teachers in Bangladesh. The study is also ascertain the overall job and variation of job satisfaction of private university teachers in terms of promotion and suggesting some policies to improve the level of satisfaction of university teachers with promotion.

### Research Methodology

The study is quantitative in nature. Both primary and secondary sources of data have been used to administer the study. The sample size was 384 respondents from 22 private universities who have their campus in different areas of Dhaka City. Public universities of Bangladesh are characterized by secured job, timely promotion and related organizational support the teachers expected from their organization while private universities are often criticized with the treatments and practices to their faculty members like delayed promotion, unnecessary conditions of promotion, unnecessary ranks like Senior Lecturer, Junior Assistant Professor, Senior Assistant Professor (which are absent in public universities and rules of UGC), discriminatory salary administration and related issues. So, this study particularly addressed the promotion issue which is one of the key factors of job satisfaction. It is notable that, Most of the private universities are in Dhaka, totaling more than 50 out of 93 private universities (total population) of Bangladesh. As most of the leading universities are located at Dhaka, so these universities are in best position to represent the rest of the private universities. So, the study randomly chooses the 22 universities for convenience of data collection.

#### *Sample size determination:*

The sample size is based on statistical formula; provided that the total population is greater than 10,000. For such purpose we will use a sound statistical formula for two strata as stated below:

$$n = z^2 pq / d^2$$

Where, n = the desired sample size

$z$ =the standard normal deviate, usually set at 1.96, which corresponds to the 95 percent confidence level.

$p$ =the proportion in the target population estimated to have a particular characteristics. If there is no reasonable estimate, then can be used 50 percent (0.50)

$q= 1-p$

$d$ = degree of accuracy desired, usually set at 0.05.

So, the sample size is **384** [ $1.96^2 (0.50) (0.50)/ (0.05)^2$ ].

**Table 02:** Summarized population and Sampling Plan

Target Population	Elements	Individual faculty members of private universities in Bangladesh especially in Dhaka City.
	Sampling Unit	The faculties from different levels of private universities
	Extent	Selected different campuses of private universities in Dhaka city.
	Time	March- April, 2017
Research tools	A Structured questionnaire comprises 3 sections of 9 questions.	
Sampling Technique	Non probability convenience sampling procedure was used for selecting different level of faculties.	
Scaling technique	Multiple choice questions	
Data Used	Primary and secondary	
Sample Size	384	

#### *Data collection Method and Instrument*

Survey of questionnaire has used for collecting primary data. Questionnaire consisted of three sections: first section was related to Personal profile comprised of 7 demographic variables which include gender, age, marital status, university, designation, number of dependents & job tenure in particular institution; the second section was consisted of a questions related number of promotion; third section addresses a question regarding the level of job satisfaction.

The survey questionnaire for the study was drawn from the previous researches (Snead and Harrell 1991) and is adapted through appropriate modification that is suitable for the Bangladeshi private university context. The researchers themselves were actively involved in data collection. The students from senior intake who are studying the course “Research Methodology for Business” also have been acted as research assistant to ensure the smooth data collection. An Average questionnaire administering time was 30 minutes for each questionnaire.

#### *Statistical Tools used for the Data Analysis and Reporting:*



The researchers have used different types of statistical tools such as – SPSS, Microsoft Excel and Microsoft Word. Data are analyzed through proper quantitative and qualitative techniques. The linear regression analysis is a suitable method in investigating the correlation among a dependent variable and independent variables having a purpose to explain a dependent value, described by using known values of independent variable. Researchers also use Pearson correlation to show the exact correlation between dependent and independent variable. And, Simple linear regression has used to justify the hypothesis.

### **Limitations and future research**

This study has some limitations. Firstly, only promotion factor of job satisfaction are examined for university academics in this study. Thus, more job satisfaction factors could be included in future studies. Secondly, this study can be extended to include the academics of public universities. Thirdly, the present study is conducted in only 22 private universities situated in Dhaka. Fourthly, respondents of this study are mostly new comers (Lecturers) for whom promotion is not urgent hygiene need as salary and job itself. As a result, it may be difficult to generalize the findings of this study. For future research, a larger number of private universities and other establishments should be included in and out of Dhaka to better represent the private sector of Bangladesh.

### **Analysis and Findings**

To meet the objectives of the study, the impact of promotion on the job satisfaction private university teachers in Bangladesh the following analysis is administered by the researchers.

- a. Identification of the profile of the respondents
- b. Overall job satisfaction level of faculty members
- c. Determining the impact of independent variable on dependent variable through regression analysis

### **Profile of Respondents:**

Table 3 below summarizes the profiles of the respondents. The profile characteristics include gender, age limit, marital status, designation, length of service and number of promotions in their current institution.

**Table 03:** Profiles of Respondents

<b>Particulars</b>	<b>Variables</b>	<b>Frequency</b>	<b>Percent</b>
Gender	Male	246	64.1

	Female	138	35.9
	26 – 30	231	60.2
	30 - 35	110	28.6
Age Limit	35 – 40	28	7.3
	40 – 50	11	2.9
	More than 50	4	1.0
	Single	159	41.4
Marital Status	Married	218	56.8
	Divorced/Separated	7	1.8
	Widow	-	-
	Professor	06	1.6
	Associate Professor	12	3.1
Designation	Assistant Professor	73	19
	Senior Lecturer	29	7.6
	Lecturer	264	68.8
	1 – 3 Years	274	71.4
Length of Service	3 – 7 Years	92	24.0
(Existing Organization)	7 – 12 Years	12	3.1
	More than 12	6	1.6

According to table 03, it can be observed that 64 percent of the respondents were male teachers and rest of the 36 percent were female teachers who were conducted the survey for the data collection. Most of them are in the age limit of 26 to 30 and least was more than 50 years old; the figures were 60 percent and 1 percent respectively. Among the sample 56.8 percent respondents were married whereas 41.4 percent were single. Surprisingly only 1.8 percent were either divorced or separated. To enlighten the designation of the respondents it is seen that 68.8 percent were Lecturer, 19 percent of them were Assistant Professor and only 1.6 percent were professor. The respondents were asked regarding the length of service in their current organization and it is seen that 71.4 percent of them were serving from 1 to 3 years whereas only 1.6 percent were serving for more than 12 years.

### **Overall Job Satisfaction level of Faculty members:**

The following table shows the status of cross tabulated relationship between faculty member's designation and their overall level of job satisfaction considering all the selected of the respondents.

**Table: 04** Job Satisfaction and Designations of the Respondents: Cross tabulation

		Designations of the Respondents					Total
		Lecturer	Senior Lecturer	Assistant Professor	Associate Professor	Professor	
Job Satisfaction	Never	1	0	3	0	0	4
		.4%	.0%	4.1%	.0%	.0%	1.0%
	Seldom	11	0	1	0	2	14
		4.2%	.0%	1.4%	.0%	28.6%	3.6%
	Occasionally	52	9	11	1	2	75
		19.8%	31.0%	15.1%	8.3%	28.6%	19.5%
	About half of the time	64	1	6	1	1	73
		24.3%	3.4%	8.2%	8.3%	14.3%	19.0%
	A good deal of the time	70	8	30	7	2	117
		26.6%	27.6%	41.1%	58.3%	28.6%	30.5%
	Most of the time	55	10	21	2	0	88
		20.9%	34.5%	28.8%	16.7%	.0%	22.9%
	All the time	10	1	1	1	0	13
		3.8%	3.4%	1.4%	8.3%	.0%	3.4%
Total	263	29	73	12	7	384	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

The above table shows that there are three designated teachers such as Senior Lecturer, Associate Professor and Professor where there is nobody who never satisfied. However, 0.4 percent of Lecturer and 4.1 percent of Assistant Professor agreed that they never satisfied with their job. The table also shows that almost all the designated teachers are stated that they are satisfied at a good deal of time. The reason behind such type of statement is that there are obvious some other factors affecting the job satisfaction.

### Impact of promotion on job satisfaction

#### Correlation analysis

The Sig. (2-Tailed) value in our example is .010. This value is less than .05. Because of this, we can conclude that there is a statistically significant correlation between promotion and job satisfaction. And, Pearson correlation value is .131 which indicates that there is

positive but weak relationship between promotion and job satisfaction. That means, when the faculty member gets promotion, the job satisfaction level is not significantly increased as we normally perceive.

**Table 4:** Correlation Analysis

		Promotion	Level of Job satisfaction
Promotion	Pearson Correlation	1	.131*
	Sig. (2-tailed)		.010
	N	384	384
Level of Job Satisfaction	Pearson Correlation	.131*	1
	Sig. (2-tailed)	.010	
	N	384	384

\* Correlation is significant at the 0.05 level (2-tailed).

**Linear regression analysis**

Linear regression analysis is used to examine the correlation between the independent variable (promotion) and dependent variable (job satisfaction). Promotion as independent variable is incorporated in the theoretical proposition; this will use for the examination of association between the job satisfaction as dependent variable and independent variables (promotion).

**Table 5:** Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.131 <sup>a</sup>	.017	.015	1.274

a. Predictors: (Constant), Promotion

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.817	1	10.817	6.670	.010 <sup>b</sup>
	Residual	619.555	382	1.622		
	Total	630.372	383			

a. Dependent Variable: Satisfaction level

b. Predictors: (Constant), Promotion

**Table 7:** Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B

		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.250	.138		30.720	.000	3.978	4.522
	Promotion	.202	.078	.131	2.583	.010	.048	.356

a. Dependent Variable: Satisfaction level

The R value in model summary table above represents the simple correlation and it is 0.131 which indicates a positive but weak correlation. The 'R square' value indicates how much of the total variation in the dependent variable, Job satisfaction can be explained by the independent variable, Promotion. In this case, 17% can be explained, which is somewhat healthy with comparing other variables. The results show that the independent variable 'promotion' has significance influence upon job satisfaction (dependent Variable) of faculty members with the P value of .010 ( $P < .05$ ). So, the hypothesis has accepted.

### Summary of findings:

- There is positive but weak relationship between promotion and job satisfaction. That means, when the faculty member gets promotion, the job satisfaction level is not significantly increased as we normally perceive.
- It may happen as job satisfaction is a complex that and need to contribute numerous variables to influence. That means other issues like working environment, working conditions, Compensation package, relationship with colleagues, work-life balance and so on are contributing for job satisfaction.
- Another point is, teaching is a profession which is satisfactory itself (job itself) for many. When someone gets the long awaited passionate job, it's like fulfilling the dream. So, in that case promotion has a bit impact on job satisfaction of such faculty members.

The results concluded in my research paper are supported by these researches: Kosteas, V. D., (2011); Pergamit and Veum (1999); De Souza, (2002); Sharma and Sharma, (1989); Kumara and Koichi, (1989); Gellerman, (1968); Litwin and Stringer, (1968); Prichard and Karasick, (1973). Kosteas,(2011) found a positive relationship job satisfaction and promotional policies. Pergamit and Veum (1999); De Souza, (2002) and Petros W. F. & Dawit T.B. (2016) also find that employees job satisfaction has positive impact of promotion.

### **Recommendations:**

Based on the findings of the study, following recommendations have been appended for improving the promotion system and eventually teacher's job satisfaction of private universities in Bangladesh:

- The study clearly showed that, only promotion doesn't influence the job satisfaction solely and significantly. So, organization should care of other issues as working environment, Compensation package, working conditions, relationship with colleagues, work-life balance and so on.
- Perhaps, the extents of compensation, responsibility, work-life balance etc. are not properly adjusted with the promotion. These issues are asking a balance, need to ensure.
- To enhance the satisfaction of employees there is need of timely promotion; justice and equality should be ensured during promotion.
- Accurate promotional policies should adopt with removing unnecessary conditions.

### **Contribution of the Study**

This study focuses on the promotion opportunity as causal factor in influencing satisfaction. In terms of theory, the study has contributed to the body of knowledge by plugging one variable in a framework of the study. To the practice, organizations and policy makers may use this variable as mechanism to promote a longer stay among employees in their organization since the promotion opportunity is a kind of hygiene rewards every employees waiting for.

### **Conclusion**

This study focused on the relationship between promotion opportunities against job satisfaction among private university teachers. This study found that, the promotion opportunity has a positive correlation with job satisfaction.

High daily expenditure requires teachers to find other alternatives in making more income. The more severe impact to the university is that the teachers will look for other work opportunities outside. Promotion can also be thought of as the affirmation of self-worth and as a reward for work well done. Therefore all organizations especially education sectors should consider promotion opportunities whenever the academics meet the criteria that qualified to be promoted to higher position with a higher remuneration package. Since this element is the main focus of all teachers, organizations may use the variable as mechanism to enhance satisfaction, and to retain their best talents.

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## THE EFFECT OF INTERNAL MARKETING ON EMPLOYEE PERFORMANCE AND THE MEDIATING ROLE OF EMPLOYEE COMMITMENT: AN EMPIRICAL STUDY ON HOTELS IN BANGLADESH

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### Abstract

*It is expected that committed employees perform better in their tasks and therefore deliver better services, which affects employee performance positively and contributes to achieve employee satisfaction. Internal marketing is a key strategy to enhance employee commitment, which ultimately increases employee performance. The purpose of this study is to investigate the effect of internal marketing on employee performance and the mediating role of employee commitment among selected hotels in Bangladesh. The study targeted a total of 280 employees from different hotels in Bangladesh and use primary data which was largely quantitative, collected by the use of questionnaires. The descriptive analyses were conducted by using Amos SPSS 24. Findings reveal that internal marketing significantly increase the employee performance; whereas, employee commitment has a mediating effect on both internal marketing and employee performance.*

**Key Words:** *Internal Marketing, Employee Commitment, Employee Performance.*

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### Introduction

In the past, most hotels have lacked marketing concepts, particularly the concept of internal customers. Eldeen and El-Said (2011) suggest that in order to enhance employees' job satisfaction, hotel management should strengthen internal marketing activities for employees. These activities would promote employee's job involvement and job satisfaction, which would be helpful in achieving employees' organizational commitment. As a result, the concept of internal marketing can become a concrete strategy for improving the quality of service in hotel operations. By providing exceptional service, hotel employees can enhance the image of the hotel and the level of perceived and authentic service quality. Hospitality managers could benefit by adapting strategies to engage and retain highly effective, devoted, and satisfied employees on the one hand, and to implement internal marketing principles on the other. The more the managers allocate their resources towards internal marketing implementation, the higher the probability of the organization's success. (Eldeen & El-Said, 2011). Now a days internal marketing has been recognized as a strategy for market orientation. The related studies in this ground reveal that internal marketing

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activities improve organization's competitiveness through influence and creating of motivation in employees and enhance competences (Ahmed & Rafiq, 2004). Generally, it can be said that implementation of internal marketing in service organizations will equip these organizations with capabilities and competencies that will result in customer satisfaction while enjoying of environmental opportunities. In contrast with previous researches in the field of internal marketing, this research tries to study and develop the framework for the effect of internal marketing on employee commitment in hotel industry and also mechanism of such relation through employee performance empirically. The satisfaction of internal customers is important to the success of a service firm (Gremier et al., 1994). One of the important consequences of internal marketing is to increase the employee commitment of the organization (Tansuhaj et al., 1991). This in turn should result in increased job performance and lower turnover of staff (Jenkins and Thomlinson, 1992). Thereby it facilitates the interactive process.

As humans are the key issue in the service process, many organizations realize that employees are the significant key factor related to the growth of their organizations. Previous studies have identified that the employee is directly related to organization performance, thus many scholars have undertaken research to develop employee performance through several aspects. According to Costley and Todd (1987, p.13) —people work for money, but they also work for more than money. Most employees want to be proud of their organizations, to have a good relationship with other employees and managers, and to believe that they have worthwhile jobs. Most previous studies of employee commitment have focused on the commitment of the employee to their organization (Cohen, 2006). Moreover, employee commitment is found to have positive outcomes for the hospitality industry. Because of the diverse characteristics of labor, many hotels try to understand the motivations of their employees in term of increasing employee commitment to the organization and customer service (Davidson 2003). In this study the researcher tries to investigate the relationship among the internal marketing, employee performance, and employee commitment of selected hotels in different parts of Bangladesh. More specifically, the study sought to examine the effect of internal marketing on employee performance among the different hotels in Bangladesh; as well as the effect of employee commitment on employee performance too and to establish the mediating role of employee commitment with internal marketing and employee performance among the hotels in Bangladesh.

## **THEORITICAL FRAMEWORK**

### ***Internal Marketing and Employee Commitment***

Kelemen and Pappasolomou-Doukakis (2004) established the fact that firms can satisfy external customers effectively, if there is successful exchange with its employees (Lu et al, 2007). Some scholars have also found an extrinsic link between the satisfaction of internal employees and that of external customers (Palmatier et al, 2006; Heskett et al, 2008). At the heart of the internal marketing concept is the notion that employees

represent an internal market within an organization (Ahmed and Rafiq, 2003; Lu et al, 2007). This internal market can be regarded as a segment of employees that needs to be informed, developed, and motivated in order to elicit their commitment to organizational goals (Papasolomou, 2006). As a result of its perceived benefits, there has been an increased interest among marketing scholars and practitioners alike, seeking to understand the antecedents of employee commitment (Mishra et al., 2010; Ting, 2011). For instance, Chang and Chang (2009) found that internal marketing was positively related to job commitment of nurses in Taiwan. However, an extensive review of the extant literature suggests a dearth of research linking internal marketing practices and employee commitment especially in the financial services industry. Moreover, the reviews also revealed that marketing scholars have not been consistent with the conceptualization of the dimensions of internal marketing. For instance, Chang and Chang (2009) conceptualized internal marketing into employee-oriented measures, internal communication and external activities.

### ***Employee Commitment and Employee Performance***

Studies emanating from the human resources management literature (Rashid et al, 2003; Lu et al, 2007; Yiing and Ahmad, 2009) show that having committed employees in organizations leads to better employee performance because employees with greater commitment to their organizations perform better on their jobs as compared to those who have lower commitment. Similarly, other scholars also found that commitment of employees to the organization leads to job satisfaction (Lings, 2004; Lings and Greenley, 2007) and organizational citizen behavior (Farzad et al, 2008). Before this, Caruana and Calleya (1998) urged management in organizations to build a sustainable personnel base that is strongly committed and has intentions of staying with the organization into the foreseeable future.

Kanter (1968) describe affective commitment as the attachment of an individual's found of affectivity and emotion to the group. An individual who is affectively committed or emotionally attached to the organization, believe in the goal and values of the organization, works hard for the organization and intend to stay with the organization (Mowday et al.,1982). Somers (1993) suggest that continuance commitment develops when an individual recognizes that he or she lose investments, and/or perceives that there are no alternatives or other course of action. Normative commitment develops on the basis of earlier experiences influenced by, for example family-based experiences or cultural experiences (Allen & Meyer, 1997). Normative commitment can increase through beliefs that the employees have that employers provide more than they can give. The normative aspect develops as individuals' perception of their moral obligation to remain with a specific organization, irrespective of how much status improvement or fulfillment the organization gives the individual over the years (March & Mannari 1977). So normative commitment/obligation seen as a result of the receipt of benefits, and/or acceptance of the terms of a psychological contract.

***Internal Marketing, Employee Commitment, and Employee Performance***

A number of scholarly works have linked the concept of internal marketing with employee commitment and performance. According to Ting (2011), the logic behind internal marketing is that, by satisfying the needs of internal customers, they would be committed to reciprocate and deliver the quality of service desired to satisfy external customers. Chang and Chang (2009) observes that fulfilling employee needs enhances employee motivation and retention, and as a consequence, the higher the degree of employee satisfaction, the higher their commitment towards the organization and ultimately the more efficient the service delivery. Later, a customer-centric view also emerged in the literature on internal marketing.

In an empirical study Tansuhaj, Randall, and McCullough (2010) found out that through improved job satisfaction, internal marketing enhances employee performance. Ahmed et al. (2012) revealed a positive relationship between the Internal marketing practices and employee performance. Hwang and Chi's (2005) research on international hotels in Taiwan also support internal marketing's positive impact on employee performance. Chang and Chang (2007) in their study on hospitals observe that internal marketing has a positive influence on employee performance. Gounaris (2008) in his study on observes that employee job satisfaction is partially a function of internal-marketing actions like empowerment, participative decision making and informality of communication.

Iliopoulos and Priporas (2011) also observe a positive effect of internal marketing on employee performance in their study on hospital staff. Al-Hawary et al. (2013) with their study on banks in Jordan empirically proved that internal marketing practices were positively correlated with employee performance. Aamir Ali Chughtai & Sohail Zafar (2006) examined the influence of employee commitment on turnover intentions and on job performance. Rajendran Muthuveloo and Raduan Che Rose (2005) study explores that employee commitment, leads to positive organizational outcomes. Komal Khalid Bhatti, Samina Nawab (2011) said that job satisfaction has the highest impact on high employees' commitment and productivity. Paunonen et al. (2011) examined facts of a positive correlation between employee commitment and job performance, Low commitment has also been associated with low levels of morale (DeCotti & Summers, 2010) non-committed employees may depict the organization in negative terms to outsiders thereby inhibiting the organization's ability to recruit high-quality employees (Mowday et al., 2009) and decreased measures of altruism and compliance (Schappe, 2008).

From the above theoretical framework, the following hypotheses can be developed:

- **H1:** Internal marketing has a positive relationship with employee performance.
- **H2:** Internal marketing has a positive relationship with employee commitment.
- **H3:** Employee commitment has a relationship with positive employee performance

Research Model in accordance with the aim of exploring the mediating role of employee commitment in the impact of internal marketing on employee performance, the research model has been developed as shown in **figure 1**.

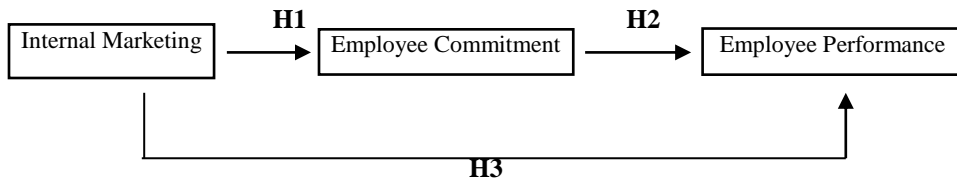


Figure1. The Hypothesized Proposed Model

## METHODOLOGY

### *Research Design*

Research design is the processes and methods used for data collection and analysis during the research (Burns & Bush, 2009). Research design decide what type of data required, from whom, and the way it is going to give answer for research question. In this research, quantitative research was applied. According to Aliaga & Gunderson (2006), quantitative research is the research collect and analyze numerical data with the use of mathematically based methods. It is conducted by asking people for opinions in a formatted method to make dependable statistics and facts.

### *Data collection*

The samples of the study—employees of six hotels in Bangladesh (Dhaka, Sylhet and Cox's bazaar) — were chosen. Data were randomly collected from the employees of those hotels. The return rate is approximately 80% (280/350). In line with the aims, a questionnaire was developed including various types of questions. In order to prepare an appropriate questionnaire; first, the literature was reviewed, and an interview was conducted with those working at managerial positions in 6 hotels. Subsequently, a survey was conducted among the employees of those six hotels.

### *Scale Development*

To be able to investigate the relationship between internal marketing and employee performance and mediating role of employee commitment, a survey was developed and conducted in 6 hotels. The questionnaire consists of two parts: (a) the first part was related to the internal marketing, employee commitment and employee performance (b) the second part was related to the demographics of the respondents. The first part has 39 statements on a five-point Likert type ordinal scale (1=strongly disagree and 5=strongly agree). The questionnaire was applied through the face to face interviews and the drop-collect survey. To measure internal marketing, 13-item scale were used, employee

commitment. was measured using the 11-item scale and Employee performance was measured using the 15-item scale. The language used here was simple so that it became easy for the researcher to communicate with all the customers, even those have minimum proper education. Questions are clear, answerable, unbiased, and appropriate to the hotel context. As suggested by Frazer and Lawley (2000), it is necessary to understand the words used in the questionnaire, so that it will motivate respondents to complete the questionnaires. The collected data was analyzed using SPSS Amos 24 package program. The results of the primary data and the discussions based on the above given analyses were given in the section below.

## ANALYSES AND RESULTS

### *Characteristics of the Respondents*

Demographic characteristics of employees are shown in Table 1.

<b>Educational Level</b>	<b>n</b>	<b>%</b>	<b>Age</b>	<b>n</b>	<b>%</b>
Primary	58	20.80	21-30	94	33.80
Secondary	39	13.80	31-40	114	40.80
Bachelor's University Degree	121	43.10	41-50	50	17.70
Master's degree	62	22.30	51+	22	7.70
Total	280	100	Total	280	100
<b>Experience In Sector</b>	<b>n</b>	<b>%</b>	<b>Experience In Firm</b>	<b>n</b>	<b>%</b>
1-5	43	15.40	-1	26	9.20
6-10	95	33.80	1-5	159	56.90
11-20	82	29.20	6-10	60	21.50
21+	60	21.50	10+	35	12.60
Total	280	100	Total	280	100
<b>Gender</b>	<b>n</b>	<b>%</b>			
Female	131	46.92			
Male	149	53.08			
Total	280	100			

Table 1. Characteristics of the respondents

### *Reliability of Scales*

In this study reliability was firstly measured by using Cronbach's (1951) coefficient alpha and then using confirmatory factor analysis (CFA). With respect to Cronbach's coefficient alpha, Cronbach's coefficient alpha, **Table 1** shows that all the constructs were equal or exceed the suggested level of .70 (Nunnally, 1978). For using confirmatory factor analysis, CR and AVE were calculated from the CR formula and AVE formula given by Fornell and Larcker (1981). Bagozzi and Yi (1988) recommended that CR

should be equal to or greater than .60, and AVE should be equal to or greater than .50. Based on these assessments, measures used in this study were within the acceptable levels supporting the reliability of the constructs (see **Table 1**).

Scales adapted from	Cronbach $\alpha$	CR	AVE
Internal marketing	.75	.91	.54
Employee commitment	.72	.84	.50
Employee Performance	.74	.89	.51

Table 2. Reliability of scales

As Bagozzi (1980) argued, construct validity is a necessary prerequisite for theory testing. In this study, results obtained from goodness of-fit indices confirmed construct validity (Hsieh and Hiang, 2004).

Fit indices	Results
$\chi^2$ (Chi-square)	147.995
P value	P=.000
Degree of freedom (df)	62
Chi-square/df	2.387
Goodness of fit index (GFI)	.922
Adjusted goodness of fit index (AGFI)	.886
Root-mean-square error of approximation (RMSEA)	.071
Tucker-Lewis index (TLI)	.930
Comparative fit index (CFI)	.945
Incremental fit index (IFI)	.945

Table 3: Modification indices of Constructed model

**Table 3** shows the results developed from the estimation of the CFA model. The outcomes acquired from the estimation of the CFA model show that the overall chi-square for this model was 147.995 ( $p < 0.000$ ) with 62 degrees of freedom (df). Five measures of fit were tested: the goodness of fit index (GFI= .922), the adjusted goodness of fit index (AGFI= .886), the comparative fit index (CFI = 0.945), the Tucker-Lewis fit index (TLI = 0.930), the incremental fit index (IFI = 0.945), and the root mean square error of approximation (RMSEA = 0.071).

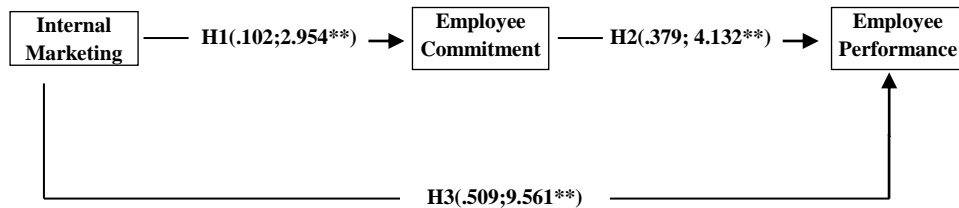


**Discussion**

As this model showed the correlation between the constructs, structural equation modeling was used by applying the maximum likelihood (ML) method (Amos version 24.0). The relationships projected in the model were observed in **Table 4** and **Figure 2**.

Hypotheses Relationship	Estimate	t Value	P
<b>H1</b> Internal Marketing → Employee Commitment	.102	2.954	.002**
<b>H2</b> Employee Commitment → Employee Performance	.379	4.132	.000**
<b>H3</b> Internal Marketing → Employee Performance	.509	9.561	.000**

Table 4: Results of hypotheses testing (Notes: \*\* indicates P<.05)



**Figure 2:** Hypothesized Final Model

**H1:** In this the research it is found that internal marketing influences employee commitment, approved the H1 (.102; 2.954, p = .002) (shown in **Table 4**), though the influence is very low but it may be varying from hotel to hotel and the amount of facilities that means the personal welfare they provide to their employees. From the findings, it is found that committed employees who are highly motivated to contribute their time and energy to the pursuit of organizational goals ought to be increasingly acknowledged as the primary asset available to an organization and be motivated to be productive in their commitment. As most of the hotels in Bangladesh still not concentrating on internal marketing theory, and provided minimum facilities to their employee, it’s difficult to get a good number of committed employees.

**H2:** The study further established a positive relationship between employee commitment and employee performance among selected hotels in Bangladesh n supported H2 (.379; 4.132, p = .000) (shown in **Table 4**). Rashid et al., (2003), Lu et al., (2007) and Yiing & Ahmad (2009) also show that having committed employees in organizations leads to better employee performance because employees with greater commitment to their

organizations perform better on their jobs as compared to those who have lower commitment. Also, Fang et al., (2011) stated that stronger commitment could result in less turnover and absenteeism, thus increasing an organization's productivity. Fostering employee commitment among the hotel staff is important because, as mentioned previously, employees that are highly committed stay longer, perform better and engage in organizational citizenship behaviors. hotel staffs that are not committed to their work place are likely to put less effort to provide services to their customers. The finding of this study is however related with Bies et al., (2007) whose meta-analysis showed that the confidence interval around the mean correlation between employee commitment and performance is low, concluding that though commitment has significant direct influence on performance but this effect of influence is not so high on the basis of organization culture in most instances.

**H3:** The results show that there is a significant relationship between internal marketing and employee performance among the hotels in Bangladesh (0. 509; 9.56,  $p < 0.000$ ) (shown in **Table 4**), providing support for H3. A number of marketing scholars who have revealed that internal marketing practices effect positively on employee innovativeness (Hassan, 2010) and improved productivity. Ting (2011) also argued that the logic behind internal marketing is that, by satisfying the needs of internal customers, they would respond and convey the service quality so that they can satisfy outside customers.

## CONCLUSION

Employee, as an internal customer, has a crucial role in the maintenance of organizational activities in such a manner to get the advantage of competition. Hotel will get employee commitment if their wishes and requirements are supplied and in return their performance will increase, which will contribute to realize the organization objectives. Therefore, internal marketing applications should be taken into consideration in order to increase employee commitment levels and job performances of employees. Today internal marketing has been considered as a strategy for market orientation. Internal marketing factors and their influence on employee performance and employee commitment have been tested in this research. Research results illustrate that all factors related to internal marketing have a significant effect on employee performance and employee commitment. These results are similar to the results of previous researches. The study was carried out in 6 hotels in Bangladesh. The sample consisted of hotel staff; however, for further studies internal customer may be diversified in term of demographic and other factors. Additionally, a comparison between different star hotels in term of the effect of the internal marketing on the employee performance and employee commitment can be done through further research. Though there is no significant mediating effect of employee commitment on the relationship between internal marketing strategy and employee performance among selected hotels in Bangladesh but the scenario can be different if the further research can be done with the five star hotels in Bangladesh. In conclusion, the

research is supposed to contribute greatly to the literature and administrators facing customers in need of different services resulting from the changing era and values, in terms of employee commitment and effective applications of internal marketing that increase employee performance.

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