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Hygienic Behavior of Migrated Women and Health Status: A Study on Urban Slum in Sylhet City of Bangladesh

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Abstract

Slum women are the most deprived section of the society. Like other cities of Bangladesh, living condition and overall milieu, especially health situation in the slum areas of Sylhet city is miserable. This study tried to measure the relationship between the hygienic behavior and their health statuses. Descriptive designs have been followed in the study. Collected data have been analyzed by the Hygienic Behavior Index (HBI) and Problem Confrontation Index (PCI). The index value of hygienic behavior indicates that practices of hygiene are relatively poor among slum women. The Study reveals that, slum women's health care situation is of poorer quality because of their meager economic condition, lack of consciousness and deprived of education. Consequently, they incessantly suffered from a variety of diseases like diarrhea, dysentery, skin disease, Headache, Trichomonar vaginitis, Nausea, Vaginal candidacies etc. To improve these situations, government and NGO should increase different awareness campaigns among them.

Keywords: *Reproductive health, Slum Women, Sanitation, and Hygiene condition*

Introduction

Slum is more or less a common phenomenon in every city of the world. No country can contradict this reality as all big cities in the world are mostly affected by this problem. But the criteria of slum's poor and congested housing, disorganized families, low literacy rate, deviant behavior, density of population etc vary from region to region (Das 2000). Sylhet is a divisional headquarters as well a metropolitan city and is famous for tourism, which is located in the hilly areas of northeast part of Bangladesh. It is a booming city due to the tourism and foreign remittance. Landlessness, joblessness in the rural areas and job

opportunities of the city encourage the resettlement of rural poor to the Sylhet city and making rush to the slum areas gradually. Yet, patterns of slums in Sylhet city are different from the other area of Bangladesh because overwhelming numbers of slums in Sylhet is no more than ten years old. Again, most of the urban slums and squatter settlement grow up in public land, while in Sylhet there are almost slums on private land (Islam et al. 2006:30). About 360,000 people live in this city. People mainly poor persons who has been affected by seasonal unemployment, temporary food insecurity, and natural disaster or displaced for river erosion are migrated in Sylhet city to improve their economic condition (Chowdhury et al. 2012:124). Majority of migrated people are involved with informal or labor activities and lived in different slums area. According to the Sylhet city corporation, about 97,676 people who consist the 27 percent of city population lived in 756 slums and squatter settlement cluster. The average population density in these slums is 831 persons per acre or 205,415 people in per square kilometer. Usually, slum inhabitant lived in very small, mostly single room homes. Room density is highest in most of the slums of Sylhet city and approximately five persons reside in per room in half of the clusters (Islam et al. 2006:29). These increased people tremendously create lots of pressure on existing urban infrastructure and public services.

Like other cities of Bangladesh, living condition and overall milieu, especially the sanitation and health situation in the slum areas of Sylhet city is wretched. Almost no sanitary latrines or urinals are observed here and the slum dwellers often defecate at open spaces, hedges, drains and bushes (Sarkar et al., 2001). As a result, water, soil, flies, mosquitoes, air etc spread many kinds of diseases. The deteriorated sanitary situation causes severe environmental degradation in Sylhet city (Ahmed M. et al. 2006). In this dreadful environmental condition, the slum women are seriously affected. Unfortunately, they face various health related problem because of their vulnerable situation. They do not have enough sanitation, pure drinking water, and reproductive health facilities. Inadequate supply of clean water for domestic hygiene is also associated with such disease of women. Thus, the health conditions of women living in slum area are very pathetic and they are not aware of their situation. Therefore, it is important to know about the health situation of women living in slum areas. Because if women have worse health condition they will give birth to the malnourished children and their risk to death will increased. In this research it is endeavor to investigate the hygienic behavior and frequency of various diseases of women living in slum areas in Sylhet city.

Objectives of the Study

The broad and general objective of this study is “to know the practices of the hygienic behavior and the nature of diseases of slum women”. This broad objective has been split into several specific objectives. These are,

1. To know the Socio-demographic profile of the respondent's household;
2. To find out the pattern of hygienic behavior;
3. To categorize the major diseases caused by unhygienic practice of the slum women, and
4. To measure the relationship between the practices of hygienic behavior and the occurrence of diseases.

Research Questions	Data collection methods	Analytical tools
What types of hygienic behaviors are practices by slum women and why?	Questionnaire survey, in-depth interview and observation	Percentage analysis Index construction Text analysis
What kinds of diseases do women of the slum usually undergo and how many times?	Questionnaire Survey and Group discussion	Problem confrontation index
Is there any relationship between practicing hygienic behavior and intensity of diseases in slum women?	Questionnaire Survey	Nonparametric co-relation

Review of Literatures

Urbanization is an important issue in modern world since rapid urbanization influenced the growth of slums and squatter settlement. Slum is always conceptualized with the poverty and it is an invasive attribute of life in urban area. Typically, slum refers to poor housing and meager facilities, where people of lower socioeconomic status lived. It is a resident area and at least ten or more households/ unit with minimum twenty-five people exist altogether. Therefore, these squatter areas are very crowding, lack of security and highly density of population with poor environmental services specially for water and sanitation facilities (Khan 2008:254; Nahar et al. 2011: 2; Bутtenheim 2008: 27; Nazrul Islam et al. 2006:12). About one billion people who consisted one third of population of the world are living in either slum or squatter settlements. This number is increased day by day. Urban population will be reached 80 million in 2020 where 40 percent to 60 percent people will live in the slums (Ooi and Phua 2007:30). In Bangladesh, there are 35 million people live in urban area and every year it is increasing by 3.5 percent. Generally, this rapid growth population comes from rural area to large metropolitan areas and they turn to live in slums and other squatter settlements for their shelter. Consequently, in Bangladesh all of the major urban centers found slums and squatter settlements (Rana 2011:241; Islam et al. 2006:6). Poor garbage disposal and unhygienic conditions are common scenario in slum areas. More than half of the slums have no mechanism to collect garbage or a particular area for disposing domestic waste. The sanitation condition of low income areas like slum is remarkably poor (Ahmed et al. 2010:263). Near about two third of the slum dwellers had no access in safe latrine while an average six families had been shared one latrine (Islam et al. 2006:15). However, most of the latrine located outside of the room (Choudhury et al.2012:1). On the other hand, rest of the inhabitants of slums used a lake, river or non-designated latrine areas as a defecation. Poor drainage condition is another vulgar feature of urban slums. During the rainy season it has been experienced moderate to heavy rainfall in Bangladesh. Commonly, drainage condition is very rough in slum area because slum clusters are often found on land, which is most cases inconvenient for settlement. For example most of the slum formed in the low laying areas, besides pipelines, under bridges, marshes, sewage canals, river bank or near to the railway tracts (Karn et al. 2003:). Normally, these places are prone to suffer from poor drainage and

hence water logging and flooding, particularly during the rainy season (Islam et al. 2006:18). These poor solid waste disposal and drainage in slum areas promotes rats, flies, cockroaches and other vectors of diseases. Poor sanitation in the slum areas causes hazards from mosquito-borne and rat-borne diseases. Dental health is also poor among the people of slum area. More than half of the slum dweller often faces different problem for their mouth or gums.

Hygienic is precondition of good health. Hygienic refers some practices, where a person keeping himself and his surroundings clean and these practices help to prevent sickness or the spread of diseases (Klebanoff et al.2010: 95). A large number of Bangladesh's people, particularly in slums areas, remained with no or little access to hygienic facilities. Due to the lack of proper hygienic condition like pure and adequate water supply, sewerage and sanitation has been precarious and miserable impact on their health (Kam et al. 2003:). A significantly percent of women living in slums, had a poorer status by household characteristics, pitiable hygienic condition, over-crowding and hadless socio-economic condition. Consequently, they are highly vulnerable than men or the women not living in slums (Nahar et al. 2011: 3). This neglected population has been suffering from various diseases like diarrhea, malaria, yellow fever, cholera, dysentery, dengue, typhoid, tuberculosis and pneumonia, under nutrition, delivery-related complications, postpartum morbidity, intestinal problems, measles and skin diseases, respiratory infections, pain, sexually transmitted infections (Rahman 2012:3; Khan 2008:255; Ahmed et al. 2010: 265). Furthermore, most of the women and girls endure menstrual related problems. Menstruation is natural and common phenomenon of a woman's life. It is a symbol of a woman's fertility, maturity; moreover, it plays a significant role in their physical as well as mental health (Jian 2006:2). Good hygiene like using sanitary pads, regularly washing genital area, washing hand before or after using pads is very essential for women during the menstruation period (Assoc et al. 2011:96). In that time women and girls need access to clean and soft engross hygienic product for long run protection of their health (Omidvar and Begum 2010:411). However, in slum area most of the girls or women do not have any precise idea and hygienic practices about the menstruation (Cheng et al. 2007:127; Jarrah and kamel 2012:309; Omidvar and Begum 2010:411). Consequently, females undergo various physical and psychological problems (Rahman 2012:3). In general, they are often use old nags as a pad in menstruation period and they also utilize this nags or piece of cloth again and again without being wash with any soap, even those shred of cloth are wet or dried unhygienic (Jian 2006:9; Chowdhury 2007: vii; Khan 2012: 29). But due to the lack of knowledge, insufficient socio-economic condition, different unhygienic behaviors are responsible for increasing different contagious and sexual transmitted diseases (STD) (Rahman 2012:3; Klebanoff et al. 2010: 94; Chowdhuri 2007: vii; Kavitha 2012:294). The pregnant and suckle women are very much affected by malnutrition because of their families' low income, uncertainty of income, insufficiency of nutritive food, bad food habit, continuous illness etc. Yet, substantive research work is found which are either related to the reproductive health or the hygienic behavior of slum women, as well as very few studies deal with only the attitudes of female about the menstruation or the maternal health. Besides, to best of our knowledge there is no research work done about the practices of hygienic behavior and its impact on nature of diseases of slum women especially in Sylhet city.

Rationality of the study

Health is one of the determinants factors of human capacities and sound health is the prerequisites for inscape form the mobility and longevity. The level of ill health reduces the amount and productivity of labor supplied to an economy. Again, health is a fundamental human right that underpins survival of citizens. Child health depends on mother's sound health. If mother's health condition remains worse, she give birth a malnourished child and thus nation suffered for long time. Consequently, women health condition is much more important and in that sense dealing with women's health issues is an essential task. But in slums the common factors are poverty, poor-quality households, over-crowdedness, low-income, skilled and unskilled manpower, limited health care service and unhealthy environment, awkward social structure etc. For these reason health condition especially patterns of diseases of slum people are very worse particularly women are more vulnerable in this condition.

Furthermore, Women and health issue is very important for social development. In millennium development goals, maternal health is given priority for reducing mortality of women. Hygienic practices are much more important for improved health status. But in slum, people maintain their lives by hand to mouth, so health issues especially hygienic issues are greatly neglected here. It is very crucial to know about the hygienic practices and its impact for taking initiatives by the relevant authority. But sufficient research works are not available about the hygienic practices of slum women and their nature of diseases. As a result, most of the people are unknown about the poorer hygienic condition of slum women and their related diseases. Here, this study is to explore the causes of women's unhygienic practices and its impact on their health particularly nature of diseases. Therefore, this study may have an implication in generating new idea and insight about this problem. It also poses importance in addressing policies of the respective authority.

Materials and Methods

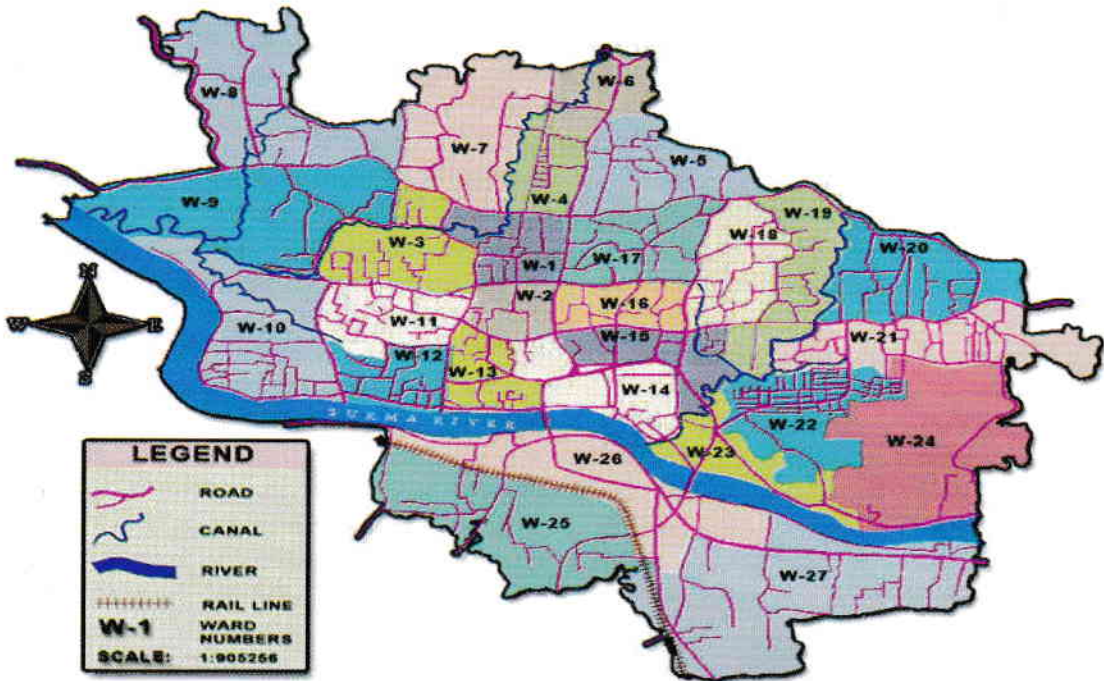
The study is conducted in Sylhet City which is located in northeast side of Bangladesh (BB, 1992). Respondents were selected using simple random sampling technique (SRS) where sample size is 93 and determined according to Cochran's sample size formula (Bartlett et al. 2001:47). The survey followed multi-stage procedures. Firstly Sylhet City Corporation is selected purposively because it is a booming economic and tourism region in Bangladesh and people move towards Sylhet City from different areas of Bangladesh to get better economic opportunities (Hussain, 2007: 67-69). Secondly, ward 10 is selected from Sylhet City Corporation. This area is selected because highest numbers of slums exists in this ward and 151 numbers of slums in total (UPPRP 2012). Thirdly, 60 slums are selected where more than 30 families lived. Finally, 3284 households are found in 60 slums and one of married women of each household e.g. 3284 women are considered as universe of the study.

$$n_0 = \frac{t^2 \times s^2}{d^2} \dots\dots\dots (\text{Bartlett et al. 2001:47})$$

$$= 1.96$$

$$n_0 = \frac{n_0}{1 + 1 / \text{total pulation}} \dots\dots\dots (\text{Bartlett et al. 2001:48})$$

$$= 93$$



To carry out the research, descriptive research design has been followed and methodological triangulation (social survey, in-depth interview, focus group discussion (FGD) has been used to collect appropriate data. In aspect of social survey, semi-structured questionnaire and checklist was for FGD. Several statistical tools were used to analyze the data. Intensity of various diseases is measured by Problem Confrontation Index (PCI). In addition, an overall Index of hygienic practices (OIHP) is constructed according to the Roy et.al Overall Participation Level Index (OPLI) (Roy et al. 2007: 53) and (Chowdhury et al, 2012). Social Status Index (SEI)

$$\text{OIHP} = \frac{\text{HP1}_1 + \dots\dots\dots + \text{HP1}_{10}}{N} \times 100 \dots\dots\dots (i)$$

$$\text{HPI}_i = \sum \frac{w_i f_i}{m} \text{ (Chowdhury et al. 2012 : 126)}$$

Here, f_i = frequency of i^{th} category of responses

w_i = assign value of i^{th} category of responses

m = maximum score

$$\text{PCI} = N_1 \times 0 + N_2 \times 1 + N_3 \times 2 + N_4 \times 3 \text{ (Kuhinur and Rokonzaman 2009:382)} \dots\dots\dots (ii)$$

Where, N_1 = Number of respondent felt the problem not occurred

N_2 = Number of respondent felt the problem scarcely

N_3 = Number of respondent felt the problem sometimes

N_4 = Number of respondent felt the problem often

Result

Socio-demographic information of the respondents

In this study, socio-demographic circumstances are measured through respondent's age, marital status, types of family, family members, education etc. In the study, half (50%) of the respondent's age is 25-34. About one fourth (25%) and less than a quarter (17%) of the respondents age is 15-24 and 35-44 respectively. Only eight percent women belong to 45-54 years of age (Appendix table-1).

It is revealed from the study that, more than half (65%) of the respondents' family members are 4-6. We find that ten percent family has 1-3 members and seventeen percent families have 7-9 members. Besides this, more than eight percent of the respondents belong to families whose size is nine and above (Appendix table-1).

Appendix table-1 shows that more than half (53.33%) of the women are illiterate whereas 38 percent respondents can sign, more than six percent have primary education and one percent of the respondents have secondary level of education.

Table1: Socio-demographic profile of respondents

Items		Number	Percentage
Age	15-24	23	25
	25-34	47	50
	35-44	15	16
	45-54	07	8.32
Family member	1-3	09	10
	4-6	61	65
	7-9	16	16.6
	9+	07	8.33
Education	Illiterate	49	53.3
	Below primary	35	38.3
	Primary	7	6.60
	Secondary or above	2	1.60

Housing and Water-Sanitation Conditions

It is found that most of the respondents (91.67%) live in one-room houses. Only 8.33 percent of the respondents live in two room houses (Appendix Table-2). Besides this, 80 percent of the respondent's room has no window and 20 percent has one window (Appendix Table-3). There have not sufficient air circulation and is not good for sound health. Ninety-five percent of the respondents said that they have electricity in their house but five-percent of the

respondents have no electricity in their house (Appendix Table-4). In response about roof, 66.67 percent said that the roof of their room was tin shade and cane and 33.33 percent said that it was steel roof (Appendix Table-5). Accordingly, 58.34 percent respondent's floor of the rooms was made of grubby. Only 41.66 percent of the floors are built with brick (Appendix Table-6). The percentage of the use of tube-well water was only 19.66 and 80.33 percent use pond, river or pipe water supplied by City for cooking and other purposes (Appendix Table-9) which is not healthy and creates many water born diseases. Besides this, other respondents said they sometimes use boiling water. However, insignificant number of the respondents mentioned that they often use boiling water.

Practices of various hygienic behavior

Slum women are suffered from various diseases. For such condition of the women various social and economic factors are responsible. They cannot continue hygienic behavior because of their lower economic status. All the time they are suffered from starvation. So always maintaining hygienic behavior is seemed to them is luxuriousness. In spite of this, slum women are deprived from education. Most of the women are illiterate. They have lack of knowledge about hygienic practices. For the whip of penury, they always unconsciously overlook the various hygienic related practices. In spite of this, because of deprived facilities they have accustomed of maintaining unhygienic life.

From the study it is found that, most (46.24%) of the respondents never washing hand with soap or ash after defecation but a little considerable (16.13) number of the respondents wash their hand often with ash or soap after defecation. Similarly, majority (76.34%) of the respondents have not the habit to wash their hand with soap before eating which is unhygienic.

One of the respondents expressed that,

*"Before eating wash the hand with soap is not necessary. It is enough
To wash the hand just water"*

Also nearly three quarter (73.12%) of the respondents do not use slipper. Likewise, it also reveals that, below half (45.2%) and near about half (48.39%) of the respondents keep waste in dustbin never and sometimes respectively. It is responsible for unhealthy environment.

As a result of lack of education and lower economic condition slum women does not have the consciousness about hygienic related behavior. For the whip of penury they always unconsciously overlook the various hygienic related practices. In spite of this, because of deprived facilities they have accustomed of maintaining unhygienic life. One respondent conveyed that,

*"We have no dustbin in our slum for keep the waste, so we throw it besides the road and
anywhere"*

It is also divulges from the study that, majority number (46.24%) of the respondents never properly dispose the children faeces. Some of them stated that,

"There is no germ in the children faeces, so it would not be Harmful if it disposed anywhere"

To the same below two quarter (43.01) of the respondents never brush their teeth by tooth paste.

Correspondingly, more than half (55.91%) of the respondents have not the habit of taking bath with soap every day during menstruation. But near one fourth (24.73%) of the respondents sometimes take bath with soap during menstruation. In addition, overwhelming number (79.57%) of the respondents never wash their nags with soap those are used during menstruation. In case of last practice it is found that most (53.76%) of the respondents very often use destructive fuels (kerosene, pole tin, plastic). However least (13.98%) of the respondents never use destructive fuels.

From the FGD (Focus Group Discussion) it reveals that, slum women are suffered from various diseases. For such condition of the women various social and economic factors are responsible. They cannot continue hygienic behavior because of their lower economic status. All the time they are suffered from starvation. So always maintaining hygienic behavior is seems to them is luxuriousness. One of the respondents said that,

"We cannot take food regularly three times in a day, how we would brush the teeth with 'Tooth paste' and wash our hand at all the time. It is the extravagance of rich people"

In spite of this, slum women are deprived from education. Most of the women are illiterate. They have lack of knowledge about hygienic practices. In this case one of the respondents said that,

"I do not know how many times brush the teeth in a day"

Table 2: Patterns of different practices of hygienic behaviors

Different Practices of the respondents	Very often		Often		Sometimes		Never	
	f	%	f	%	f	%	f	%
Practicing boiling Water	2	2.2	13	13.98	30	32.26	48	51.61
Practicing washing hand with soap, ash after defecation	5	5.38	15	16.13	30	32.26	43	46.24
Practicing of washing hand with soap before eating	3	3.23	10	10.75	9	9.68	71	76.34
Practicing of using sandal	5	5.38	8	8.60	12	12.90	68	73.12
Use or keep waste in dustbin	1	1.1	5	5.38	45	48.39	42	45.2
Practicing of brushing the teeth by tooth paste	10	10.75	15	16.13	28	30.11	40	43.01
Proper disposal of Children faces	2	2.2	12	12.90	36	38.71	43	46.24
Taking bath with soap every day during menstruation	3	3.23	15	16.13	23	24.73	52	55.91
Washing nags with soap those are used during menstruation	2	2.2	5	5.38	12	12.90	74	79.57
Using destructive fuels (kerosene, pole tin, plastic)	50	53.76	20	21.51	10	10.75	13	13.98

Index of Hygienic behavior practices

According to the PCI and SEI, construct Hygienic behavior or practices Index (HBI), is represented an individual score of respondent's in particular type of hygienic related practices. Here, ten items such as using boiling water, using sand, washing hand, faces disposal of children, proper keeping of domestic waste, brushing teeth, using destructive things, taking bath and washing nags during the menstruation are selected for compose overall index of hygienic practices (OIHP). Each item is scaled and was developed providing advanced weight to most conforming value level.

Index value for each respondent in respect to each item is specified below:

$$\text{Practicing boiling Water (HBI}_1\text{)} = \sum \frac{\text{wif}_i}{m} = \sum \frac{(0 \times 48) + (1 \times 30) + (2 \times 13) + (3 \times 2)}{(93 \times 4)} \\ = \frac{62}{372} = .17$$

Practicing of washing hand with soap before eating (HBI_2) = 0.10

Practicing washing hand with soap, ash after defection (HBI_3) = 0.20

Practicing of using slipper (HBI_4) = 0.12

Use or keep waste in dustbin (HBI_5) = 0.16

Practicing of brushing the teeth by tooth paste (HBI_6) = 0.24

Proper disposal of Children faces (HBI_7) = 0.18

Taking bath with soap everyday during menstruation (HBI_8) = 0.17

Washing nags with soap those are used during menstruation (HBI_9) = 0.08

Using destructive fuels (kerosene, pole tin, plastic) (HBI_{10}) = 0.54

Therefore, Overall Index of Hygienic Practice (OIHP) of all the respondents is:

$$\text{OIHP} = (\text{HBI}_1 + \text{HBI}_2 + \text{HBI}_3 + \text{HBI}_4 + \text{HBI}_5 + \text{HBI}_6 + \text{HBI}_7 + \text{HBI}_8 + \text{HBI}_9 + \text{HBI}_{10}) / 10 \times 100 \\ = .17 + .10 + .20 + .12 + .16 + .24 + .18 + .17 + .08 + .54 / 10 \times 100 \\ = 1.96 / 10 \times 100 \\ = 0.196 \times 100 \\ = 19.6\%$$

Relationship between hygienic practices and intensity of various diseases

Mainly common diseases they suffered from mentioned by the slum dwellers are Nausea Dyspepsia, Skin diseases, Jaundice, Diarrhea, Vaginal candidacies Trichomonar vaginitis, Dysentery, Headache, Toothache, Weakness, Mental deprivation, Fever, Cough and Cold (include Tuberculosis).

From the intensity score it is found that, respondents suffered more frequently by Dyspepsia (first) and various types of skin disease (second) like Louse, Dandruff, and Itching. On the other hand, Diarrhea, Fever including Cough like Tuberculosis and Cold are the third and fourth height diseases, which are usually, undergo by respondents. Table 2 reveals that, the intensity of vaginal candidacies (fifth) and Trichomonar vaginitis (sixth) is also high in slum area. Again, Dysentery, Nausea, Headache istoo common diseases among slum women the density of which is seventh, eighth and ninth respectively. Moreover, greater numbers of

respondents are as usual experienced by Toothache (tenth), Weakness (eleven), and Mental deprivation (twelve). Besides, the study found that slum women fall upon in Hepatitis (Jaundice), however its density is relatively low than the other diseases. The intensity of the diseases is given below:

Table 3 : Intensity of the Health Related Diseases

Name of the diseases	Number of respondents feels these diseases			Intensity Score	Rank Order
	Very Often (3)	Sometimes (2)	Scarcely (1)		
Dyspepsia	70	20	3	253	First
Skin disease (louse, dandruff, itching)	67	25	1	252	Second
Diarrhea	57	30	6	237	Third
Fever, Cough and Cold (include Tuberculosis)	60	20	13	233	Fourth
Vaginal candidacies	51	35	7	230	Fifth
Trichomonar vaginitis	55	25	13	228	Sixth
Dysentery	50	30	13	223	Seventh
Nausea	53	22	18	221	Eighth
Headache	46	34	12	218	Ninth
Toothache	45	32	16	215	Tenth
Weakness	40	40	13	213	Eleven
Mental deprivation	38	40	15	209	Twelve
Jaundice	3	20	70	113	Thirteen

The most significant correlation co-efficient -0.654 is found between the Hygienic behavior practices and intensity of diseases that is significant on 0.01 level (Table-3). Thus, from the correlation co-efficient, it signifies that, the practices of hygienic behavior of slum women are relatively poor, so they always suffer from various diseases. Again from the spearman's rho correlation it is found a strong significant negative correlation exists between the score value of practices of hygienic behavior and dyspepsia (-.794), skin disease (-0.678), Headache (-.653), Vaginal Candidacies (-.612). Again a good negative correlation lies between the score value of hygienic practices and diarrhea (-0.539), dysentery (-0.547), weakness (-.519), Fever, cough and cold (-.489), Trichomonar Vaginitis (-.409) on the 0.01 significant level. Likewise, Toothache (-.340), Nausea (-.226), Jaundice (-.327) and Mental deprivation (-.212) also negatively correlated with the practices of hygienic behavior (Table-5).

Table-4 : Correlation

		Practices of hygienic behavior	Nature of health related disease
Practices of hygienic behavior	Correlation Coefficient	1.00	-.654(**)

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

Table- 5 : Nonparametric Correlations

	Dys pep sia	Skin dise ase a	Diar rhea	Nau sea	Head ache	Toot hac he	Jaun dice	Dys ente ry	Men tal depri vati on	Fever, cough and cold	Vagi nal Can dida cies	Trich omo nar Vagi nities	Wea kness
Practices of hygienic behavior	-.794	-.678 (*)	-.539 (*)	-.226 (*)	-.653 (**)	-.340	-.327 (*)	-.547 (**)	-.212 (**)	-.489 (**)	-.612 (**)	-.409 (**)	-.519 (**)

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

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

DISCUSSION

Most of the lower income people who survive from hand to mouth are living in Slum area (Moran et al. 2010:1608). Usually significant numbers of slum women are involved with day laborer and other different informal occupations like construction worker, domestic labor. Lack of education and economic solvency, Lack of knowledge about the health and hygiene insufficient of various facilities such as pure drinking water supply, proper sewers systems, unwilling, are main causes of their unhygienic behavior (Ahmed et al. 2010:263).

Lack of cleanness is the common scenario in slum areas. Dust and wastes are not properly conserving here. Generally, they dump garbage in different places on the roadside and drain. Buittenheim (2008) revealed that, various unhygienic behavior including vagueness impact on people health condition. The study found that, due to the lack of dustbin and health awareness, respondents' throwing waste and garbage including disposed child stool here and there. Sometimes they throw this garbage in open place or near drain, canal or river. Thus air and water is polluted. Moreover, rat, cockroach, musk-rat etc are increased, which brings various germs of diseases. Again, in slum areas, there is no separate or attached kitchen in each house. On average, four to five families share one fireplace (Chula) for their cooking which is situated in the open place in the balcony. Most of the time, these fireplaces(Chulas) are not clean properly and its surroundings are also dirty. Thus dust, insects and other germs pollute food and they can easily spread various diseases among the respondents. Therefore, dengue, diarrhea, dysentery etc diseases are shown intensively. On the other hand, most of the slum lactating women have informed that they don't clean their breasts with water before or after breast feeding. Generally, after the breast feeding, they only used their wearing cloth for cleaning their breasts. For this reason, they face itching and other fungal infection in their breasts. In response of the practices of boiling drinking water, overwhelming number of respondents said that they scarcely use boiling water. Rana. (2011) shown that due to the unplanned urbanization pure drinking water scarcity is increasing and its impact on people diseases. The study also showed that most of the respondent used tube well water for their

drinking purpose. In this case in slum areas, the scarcity of tube well is also observed. However, near about all of the tube well water is arsenic and iron contaminated. This arsenic and iron polluted water is the major source of gastric, stomach ill and sometimes skin diseases also. Likewise, overwhelming number of respondents uses tube well water for clothes and utensils washing besides drinking. The condition of the place of water supply is not clean. A small slab stands in an open place, which is widely used for the purpose of bathing and daily domestic work. Both men and women use it. The slab is always slippery and covered by moss. However, most of the time, they do not properly take their bath and regularly wash their clothes due to the scarcity of water as well as the soap. Consequently, women undergo louse, dandruffs, scalp itching. In addition, a greater number of the women wash their dishes twice in a day after eating. But after supper, they keep the dishes without washing which they clean in the next morning. In case of washing dishes, they wash all the dishes with in a bowl of water. This is the sign of their lack of knowledge about the hygienic behavior of washing utensils. As a result, the dishes visually clean but those not sterilized. Least of the respondent's drink boiling water. Hand washing after defecation or prior taking food is very important for sanitation practice (Ahmed et al. 2010:75). The study reveals that after defecation or before eating majority of the respondents do not wash their hand with soap. They just wash their hand with water. Majority of the respondents said that, they use soap calculatedly because they don't have as money as buying more soap for using in every activity. As they are lower income people, hence sometimes they use ash for washing their hand. Again, in many cases they do not use soap subconsciously and for save their time. Furthermore, majority respondents said that they do not use show when they go to toilet. They have no private toilet and many people use one toilet publicly. Those toilets are not clean for many years. Besides, the scarcity of water and unhygienic environment is also existing in those toilet. For these aforementioned reasons most of the respondents suffered from stomach ill, hepatitis and worm diseases. Some difference also found in the study area, a few number of respondents and their family member always use show and wash their hands with soap after defecation. They know this information from the television. Likewise, majority of the respondents use different kinds of coal for brushing their teeth. Usually they brush their teeth twice in a day, that is, one in the morning after rising and second in the mid day before bath. As for economic problem greater numbers of the respondents do not use any kind of paste or tooth powder. So most of the time they suffered various dental diseases including bed odor in mouth and gum bowl. In slum, people live over crowdedly. It is found from the study that most of the time there are five to six people living within a one room. Beside these, others utensils and clothes are also kept in that room. That's why there is a scarcity of light and air in the room. Again, most of slum families use some destructive things for making fire such as kerosene lamp, leaves, abandoned paper which create a lot of smoke. As a result, carbon-die-oxide, carbon mono-oxide increases in their living room. Due to the insufficiency of oxygen, lack of ventilation and so crowdedness in a room, women usually endure headache, cold-coughs infection, mental deprivation, weakness etc. The dwellers of slum spend a large amount of their income for buying food rather health and hygienic issues. In addition, all of the respondents boil vegetable, meat and fish with long time for taste of curry. However, it decreases the nutritious quality of food. It happened for their lickings of

knowledge about the nutrition of food. Rashid et al. (2007). shows that due to the poverty women are more vulnerable than the family members. This study found that, women eat rest of foods which left after eating children and other male person of their families. That's why most of the time they cannot take enough food for shortage. On the other hand, usually women take stale food. Consequently, slum women suffered dyspepsia, nausea etc diseases.

Menstruation is a natural phenomenon of a women's life. It is considered to the femininity, maturation, as well as intricate part of a woman's general physical health (Cheng et al. 2007:127). Yet, for lower economic status, unconsciousness and illiteracy all of the slum women uses unhygienic and unclean fabric or cloths in the time of their menstruation. They do not regularly wash their reproductive organ with warm soap water. Alternatively, most of the slum women don't clean their vagina with water after intercourse or only used unhygienic cloth for clean-up. As a result, they undergo from Vaginal candidacies like itching, vaginal infection, pus, vaginal inflammation like redness, swelling, heat and Trichomonar vaginitis disease such as fever, weakness etc. Chowdhuri, (2009), Kavitha (2012) also found these types of disease due to the unhygienic practicing among the slum women.

Overwhelming number of the respondents reported that they go for modern medical assistance. Some of them use traditional medicine such as Kabiraji, homeopathy etc. In case of toothache, headache, skin disease and sexual diseases like vaginal candidacies, white discharge most of the respondents said that they do not take medicine. On the other hand, they take medicine irregularly for the diseases of gastric, diabetics and blood pressure. However, respondents mentioned that they took vaccine during pregnancy period. Though more than half of the respondents mentioned that they are conscious of Family Planning method and they practiced different FP methods for controlling childbirth but it is not significant.

Conclusion

Major findings of the study reveals that overall health care situation of slum women are inhuman. Most of the women's socio-economic condition is very limited that they cannot get the health services after meeting their everyday needs. Besides these, though the slum is a densely populated area and low standard people lives there over crowdedly, so the unhealthy environment consist in the area. From the study, it is found that, respondents are not aware about their sources of water and they have no practices to use boiling drinking water. Accordingly, their sanitation and hygiene condition are worse. Common diseases of slum women are headache, skin diseases, A Maggot/ Worm (An intestinal parasite), Fever, Cough and cold, Gastric/ Ulcer, Blood Pressure, Toothache, Diarrhea, Jaundice, Dysentery and Gout etc. It was found that most of the women are not aware about their common diseases but some of them could not take proper initiatives, as they have no money to take the treatment and medicine. It is also revealed that health care services are not available for the slum women as they are unable to achieve expensive health care.

Recommendation

To overcome the severe situation of slum women, the study propose some recommendations here,

- Treatment facilities should be given at free of cost.
- It is very important to conduct survey gradually to find out the real health status of all slum women.
- It is essential to take necessary steps to raise their awareness among the slum women about health issues.
- Healthy sanitations should be implemented where every family have separate toilet.
- Awareness campaign should be taken by the GO and NGO so that they could be aware about healthy life.

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Appendix-I

Ap. Table -1: Sources of water

Sources of water	Number of respondents	Percentage
Pond, river or tap	50	80.33
Tube well	10	19.66
Total	60	100

Ap. Table - 2: Number of Room

Number of Room	Frequency	Percentage
One	55	91.67
Two	5	8.33
Total	60	100

Ap. Table - 3: Number of Window

Number of window	Frequency	Percentage
One	12	20
No window	48	80
Total	60	100

Ap. Table - 4: Electricity

Have Electricity	Frequency	Percentage
Yes	57	95
No	3	5
Total	60	100

Ap. Table - 5: Roof of the room

Roof of the room	Frequency	Percentage
Tin and Cane	40	66.67
Tin	20	33.33
Total	60	100

Ap. Table - 6: Types of Floor

Types of floor	Frequency	Percentage
Grubby	35	58.34
Brick built	25	41.66
Total	60	100

Ap. Table - 8: Types of latrine

Types of latrine	Number of respondents	Percentage
Sanitary	3	5
Pit	10	16.66
Kacha	35	58.33
Open	12	20
Total	60	100

The Arrest Power of Police and violation of Human Rights: Bangladesh Perspective

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Abstract

Violation of Human Rights is an important common phenomenon and one of the major social problems for the present Bangladesh. Bangladesh is a developing country in the South Asia, affected by the gross violation of human right by the law enforcing agencies. This study aims at improving our understanding about the prevalence and conditions of human rights in Bangladesh. The Constitution of the People's Republic of Bangladesh enumerates and guarantees the fundamental Rights of the citizens of Bangladesh and as such various Codes and Acts has also been enacted which provide various powers of the law enforcing agencies of Bangladesh with a view to controlling the crimes, but the abuse of power is also occurred by these law enforcing agencies. This study also focuses on the random violation of human rights by the law enforcing agencies exercising the arrest powers and how to prevent the violation of human rights in Bangladesh. The prevalence of arrest and violation of human rights is widespread in Bangladesh. This reach arch has tried to find out the causes of the violation of human rights and mentioned some recommendations to prevent the violation of human rights. The report concludes that raising Government awareness and skills of law enforcing agencies should be adopted to reduce violation of human rights in Bangladesh.

Keywords: *Agency, Arrest, Code, Human, Law, Police, Power, Rights*

Introduction

Human Rights is an important legal and moral right though it has no monetary value, which is claimed by a man for the very reason that he is a human being. Protection of the human rights of individuals is the central edifice on which the concept of democracy is based. All, instruments and mechanics of a democratic system of government are meant to protect these rights. These rights cannot be curtailed, abridged or compromised except in accordance with the law. This unique feature of democracy has made it the most widely accepted system of government in the world. However, the very foundation of democracy of a state is shattered and frustrated if the basic rights of its people cannot be protected or enforced through legal means. Infringement of human rights is a major concern throughout the world today. Bangladesh is not an exception. Violation of human rights has become endemic and remedies for its breaches are almost non-existent. Members of the law enforcement agencies are often

accused of abusing their powers and defying human rights. Allegations of torture and extortion of money are also common against them. Abuse of power by police does not end at just arresting a person without warrant on the basis of suspicion, or in the pretext of preventive detention. It serves as a license for seeking remand or sending the arrestee into the custody of police for interrogation through a detention order made by the Magistrate under Section 167 of the Code of Criminal Procedure, 1898 or Section 3 of the Special Powers Act, 1974. Although law permits remand of arrestees in police custody for certain period, particularly when investigation cannot be completed within 24 hours, in most of the cases police tend to resort to physical torture and cruelty ostensibly for the purpose of eliciting information or extracting confession from the arrestee in violation of the provision of Article 35 of the Constitution of the People's Republic of Bangladesh.

Methodology

This study was conducted at the Department of Law, Leading University, Sylhet, Bangladesh during January, 2015 to December, 2015. Data used in this article have been collected from the secondary sources, i.e., from the books, law journals, Acts, articles, news papers as mentioned in the references. The cases referred to are from recent incident which occurred in different places in Bangladesh. The Judgments pronounced by the domestic courts have been shown as precedent or case laws to show how human rights of Bangladeshi citizen are violated by the different law enforcing agencies in Bangladesh. This study has also mentioned some effective recommendations which are needed to prevent the violation of human rights in Bangladesh. The main purposes of this study were to assess the causes the violation of Human rights and give some recommendations to prevent the violation of Human rights. However, due to limitation of available data this study can be considered as a descriptive reports based on available information.

Finding and discussion

Nature of arrest

Arrest is the beginning of imprisonment. Its purposes may be classified as; preventive (for example, in order to terminate a breach of peace), punitive (for example, to take a person before a Magistrate to answer for an offence or to be bound over) and protective (for example, where mentally ill person are arrested for their own protection). There is no necessary assumption that arrest will be followed by a charge. An arrest occurs when a police officer states in terms that a person is arrested, when he uses force to restrain the individual concerned or when by words or conduct he makes it clear that he will, if necessary, uses force to prevent the individual from going where he wants to go. Thus the police officer must say before arrest to the person to be arrested: "I am arresting"

Procedure of an arrest; arrest how made

Sections 46 to 53 of the Code of Criminal Procedure, 1898 provide the procedures of how an arrest can be made. The whole procedures may be described in the following steps:

(i) In making an arrest the Police-officer or an individual can actually touch or confine the

body of the person to be arrested (sec. 46).

(ii) If such person resists the arrest or attempts to evade the arrest, such Police-officer or individual may use all means necessary to affect the arrest (sec. 46).

(iii) By way of affecting the arrest the police officer or an individual cannot cause death of the person to be arrested (sec. 46).

(iv) While making the arrest under warrant or in case of a warrantable case the police officer may ask free ingress to any residence or place where he has reason to believe that the person to "be arrested is hiding or has entered into (sec. 47).

(v) If ingress to such place cannot be obtained under section 47 it shall be lawful for the police officer to break into the house or residence to affect the arrest (Sec. 48).

(vi) If such a breaking into the house is to be done into a zanana, the police officer must give the women inside the zanana opportunity to withdraw themselves from it (Sec. 48).

(vii) The person arrested shall not be subjected to more restraint than is necessary to prevent his escape (Sec. 49).

Arrest without warrant

Section 54 of the CrPC lays down the general power of arrest by police officer. This power is general in the sense that a police officer may arrest a person without warrant or any kind of order from superior authority or court or Magistrate. In nine circumstances a police officer may, without an order from a Magistrate and without a warrant, arrest a person. Such as:

- Any person who has been concerned in any cognizable offence or against whom a reasonable complaint has been made or credible information has been received or a reasonable suspicion exists of his having been so concerned;
- Any person having in his possession without lawful excuse any implement of house breaking;
- Any person who has been proclaimed as an offender either under this Code or by order of the Government;
- Any person in whose possession anything is found which may reasonably be suspected to be stolen property and who may reasonably be suspected of having committed an offence with reference to such thing.
- Any person who obstructs a Police-officer while in the execution of his duty, or who has escaped, or attempts to escape, from lawful custody;
- Any person reasonably suspected of being a deserter from the armed forces of Bangladesh;
- Any person who has been concerned in, or against whom a reasonable complaint has been made or credible information has been received or a reasonable suspicion exists of his having been concerned in, any act committed at any place out of Bangladesh, which, if committed in Bangladesh, would have been punishable as an offence.
- Any released convict committing a breach of any rule made under section 565, sub-section (3) of CrPc.
- Any person for whose arrest a requisition has been received from another police-officer, provided that the requisition specified the person to be arrested and the offence or other cause for which the arrest is to be made and it appears therefore that the person might lawfully be arrested without a warrant by the officer -who issued the requisition.

Constitutional and International restraints on arrest, Remand and Torture International Restraints

The spirit of human rights documents UDHR¹ recognizes the inherent dignity and of equal and inalienable rights of all members of the human family as is the foundation of freedom, justice and peace in the world.² The concept of human dignity is not static but dynamic in the sense that its essential components increase in number and volume with the passage of time.³ The notion of human rights is omnipotent for every human being for upholding his human dignity but all human rights cannot be valued at equal standing.⁴ So, priorities can be given which may be varied from country to country. But there are some basic human rights which must obtain precedence among every right no matter in which country it applies for. For example, right to life, prohibition against torture, equality before law, equal protection of law etc. Even during an official proclaimed state of emergency, the International Covenant on Civil and Political Rights (ICCPR 1966) permits limitations on some rights of the extent strictly required by the exigencies of the situation. Even then certain basic rights such as right to life and prohibition on torture and other cruel, inhuman or degrading treatment may never be restricted.⁵ The first pronouncement of prohibition against torture was made under Article 5 of the UDHR as "no one shall be subject to torture or cruel, inhuman or degrading treatment or punishment". Later on this single article contributed to create a whole convention namely the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. The term torture significantly placed in most of the important international human rights documents but it was actually the Torture Convention that clearly defined the concept of torture. Recognizing human rights as the inherent dignity of all human being, the Torture Convention⁶ was adopted in 10 December 1984 that has 145 state parties till April 2008. Right to life and protection against torture has been stated in Articles 3 and 5 of the UDHR. "Everyone has the right to life, liberty and security of person", says Article 3 of the UDHR. Article 5 asserts that no one shall be subjected to torture or to cruel, human or degrading treatment or punishment.

Article 13 of the UDHR states, "Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defense". ICCPR also explains right to life in Article 6(1), "Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."

¹ *Universal Declaration of Human Rights* (adopted by the United Nations General Assembly on 10 December 1948).

² *Ibid.*

³ Mizanur Rahman, *Unveiling Democracy State & Law* (Dhaka: Parama publishers, 1999) p.12. Farhana Reza, 'Human Dignity Versus Torture: Legal Segments of Bangladesh', Mizanur

⁴ Rahman, ed., *Human Rights Sixty Years after UDHR* (Dhaka: ELCOP, 2008), p.223.

International Convention on Civil and Political Rights, Art. 4.

⁵ *Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or*

Punishment.

⁷ *The Constitution of the People's Republic of Bangladesh.*

Constitutional Restraints

Bangladesh has accepted several restraints on the state's power of arbitrary arrest. It has ratified the International Covenant on Civil and Political Rights in 2000, which imposes two obligations: To amend its domestic laws in conformity with its international commitments and to submit periodical reports on observance of the rights given in the Covenant. It has done neither. An initial report to the Committee on ICCPR due a year after its ratification has not yet been submitted. Numerous reports suggest that the practice of torture has continued unabated and that perpetrators have not been brought to justice because of their influence and power.

Several articles of the *Constitution of Bangladesh*⁷ have provided equally strong directions to limit the power of the state to arbitrary arrest. Such as:

Article 27: All citizens are equal under the law and entitled to equal, protection under the law.

Article 31: To enjoy the protection of the law, and to be treated in accordance with law, and only in accordance with law, is the inalienable right of every citizen, wherever he may be, and of every other person for the time being within Bangladesh, and in particular no action detrimental to the life, liberty, body, reputation or property of any person shall be taken except in accordance with law.

Article 32: No person shall be deprived of life or personal liberty save in accordance with law.

Article 33(1): No person who is arrested shall be detained in custody without being informed, as soon as may not be, of the grounds for such arrest, nor shall he be denied the right to consult and be defended by a legal practitioner of his choice.

(2) Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a period of twenty four hours of such arrest, excluding the time necessary for the journey from the place of arrest to the court of the magistrate, and no such person shall be detained in custody beyond the said period without the authority of a magistrate.

(4) No law providing for preventive detention shall authorize the detention of a person for a period exceeding six months unless an Advisory Board consisting of three persons, of whom two shall be persons who are, or have been, or are qualified to be appointed, as Judges of the Supreme Court and the other shall be a person who is a senior officer in the service of the Republic, has, after affording him an opportunity of being heard in person, reported before the expiration of the said period of six months that there is, in its opinion, sufficient cause for such detention.

(5) When any person is detained in pursuance of an order made under any law providing for preventive detention, the authority making the order shall, as soon as may be, communicate to such person the grounds on which the order has been made, and shall afford him the earliest opportunity of making a representation against the order: Provided that the authority making any such order may refuse to disclose facts which such authority considers to be against the public interest to disclose.

Special powers Act

Special Powers Act, 1974 has been used as a tool for repression of political opponents ever

since its enactment Almost all major political parties promised to repeal the law before elections, but have failed to meet their promise. Section 3 of the Special Powers Act is used in particular to detain political opponents, but almost all the detentions have been declared illegal by the High Court Division of the Supreme Court of Bangladesh. This shows the illegality of such arrests and the need to repeal the law.

The BLAST case and High Court's verdict

The BLAST Judgment: Background

The judgment in Writ Petition No. 3806 of 1998 was delivered on 7 April, 2003 and later reported as Bangladesh legal Aid Services Trust and others in 55 (2005) DLR (HCD) 363.

The case was filed by BLAST, as already indicate, a few months after the shocking death of Rubel in police custody. Brutal torture of Rubel (a young student of the Independent University of Bangladesh) by police in custody and then in front of his relatives near his house had led to widespread public condemnation and outcry, compelling the then government to set up an inquiry commission. A number of police personnel's who had beaten up Rubel were later prosecuted.

High Court's Order on Section 54 and Section 167 of CrPC.

On April 7, 2003, the High Court bench comprising Mr. Justice Md. Hamidul Haque and Ms. Justice Salma Masud Chowdhury delivered the verdict on the writ petition issuing a 15-point directive on the government to be followed by the law enforcement agencies in arresting, detaining, remanding and treating suspects. The court also suggested that some changes in the procedural law in relation to Section 54 and 167 should but made with a view to prevent arbitrary arrests and custodial deaths and asked the government to comply with the order immediately. Such as:

1. No police officer shall arrest a person under Section 54 of the Code for the purpose of detaining him under Section 3 of the Special Powers Act, 1974.
2. A police officer shall disclose his identity and if demanded shall show his identity card to the person arrested and to the persons present at the time of arrest.
3. He shall record the reasons for the arrest and other particulars.
4. If he finds any marks of injury on the person arrested, he shall record the reasons for such injuries and shall take the person to the nearest hospital or government doctor for treatment and shall obtain a certificate from the attending doctor.
5. He shall furnish the reason for arrest to the person arrested within three hours of bringing him in the police station.
6. If the person is not arrested from his residence or place of business, he shall inform the arrested relation of the person over phone, if any or through a messenger within one hour of bringing him in the police station.
7. He shall allow the person arrested to consult a lawyer of his choice if he so desires or to meet any of his nearest relation.
8. When such person is produced before the nearest magistrate under Section 61, the police officer shall state in his forwarding letter under Section 167(1) of the Code as to why the

investigation could not be completed within twenty-four hours why he considers that the accusation or the information against that person is well founded.

9. If the magistrate is satisfied on consideration of the reasons stated in the-forwarding letter as to whether the accusation or the information is well founded and that there are materials in the case diary for detaining the person in custody, the magistrate shall pass an order for further detention in jail. Otherwise, he shall release the person forthwith.
10. If the magistrate releases a person on the ground that the accusation or the information against the person produced before him is not well-founded and there are no materials in the case diary against that person, he shall proceed under Section 190(1) (c) of the Code against that police officer who arrested the person without warrant for committing offence under Section 220 of the Penal Code.

The rule was made absolute and the respondents were asked to implement the directions immediately. The High Court bench also issued directives on the application of Section 167 of the Code of Criminal Procedure that allows the police to take the persons detained in custody to interrogate them in the case.

11. If the magistrate passes an order for further detention in jail, the investigating officer shall interrogate the accused if necessary for the purpose of investigation in a room in the jail.

Since the delivery of the judgment hardly any interrogation has been conducted at the jail gate or in presence of the lawyer or relatives of the arrestee. Although the law enforcers argue that torture in remand for interrogation is a tool for extorting information from an arrestee, in the judgment in *Blast v. Bangladesh*, the High Court observed that in view of Article 35 of the Constitution, “any information which is obtained by applying torture, the same information cannot be considered as evidence and cannot be used against him.” The very System of taking an accused into remand and extorting information by application of force is “totally against the spirit and explicit provisions of the Constitution”, the High Court held.

Some recent cases of arrest and remand Torture against Limon Hossain

On 23 March, in 2012 college student Limon Hossain was shot in the leg by the RAB in Jhalakathi. His injuries were so severe that four days later his leg had to be amputated. Limon Hossain's family, like the families of many other victims, said that the RAB had no reason to shoot at him, and that they must be brought to justice. Limon's mother complained that the RAB personnel who shot Limon deliberately ignored her plea to take him to hospital immediately. Had they done so, his leg might not have needed amputation. Limon's mother said that her son was not a criminal and that the RAB had shot at him without reason when he had simply gone to the fields to bring the family's' cattle back home.

With police firmly refusing to accept her complaint, Limon's mother sought and received a court order on 26 April, which obliged the police to register her complaint.

At a press conference immediately after the shooting the RAB Director General admitted that “Limon Hossain was not a notorious criminal but rather a victim of a shoot-out between the RAB and criminals.”

This statement seemed to indicate that the RAB had realized that a blanket denial of its human rights violations was no longer convincing lawyers, journalists and human rights defenders. However, this hope was short lived.

Later, RAB officials said that the shooting had been justified and that Limon was a member of a criminal gang, which had opened fire on the RAB first. They said the RAB had responded and in the process Limon was hit. They said he was shot during an "encounter".

The RAB has frequently portrayed hundreds of victims such as Limon Hossain, to have been shot at in an "encounter" or from a "crossfire" bullet or in a "shootout". They have used these phrases to shield themselves from being held accountable for their conduct. But evidence gathered by human rights defenders shows that in most cases, victims had actually been detained by the RAB and then reported to have "died" in "crossfire".

It is high time the government of Bangladesh brings an end to the climate of impunity that allows the RAB to shoot at people whom it later portrays as criminals. RAB personnel must be held accountable for the hundreds of killings, and for the injuries they have inflicted on hundreds more victims, like Limon Hossain.

Torture against Abdul Kader

On July 15, in 2013 police arrested Dhaka University student Abdul Kader on charges of attempted robbery and possessing firearms, and beat him up mercilessly. Later, he was found innocent even in a departmental investigation into his torture in police custody. After different media outlets highlighted the incident, a High Court bench of Justice AHM Shamsuddin Chowdhury and Justice Gobinda Chandra Tagore, on Thursday, summoned the officers-in-charge of two police stations and also asked them to produce the victim before the court.

After hearing, the court directed the concerned authorities to provide proper medical treatment to Kader, at Bangabandhu Sheikh Mujib Medical University Hospital. Immediately after the court order, Kader was admitted to the hospital on Thursday night. The court also directed the inspector-general of police (IGP) to suspend three officials of Khilgaon police station, including its officer-in-charge (OC) Helal Uddin, for their alleged involvement in torturing Kader. In accordance with the court's order, DMP suspended sub-inspector Alam Badshah and assistant sub-inspector Shahidur Rahman.

Violation of Human Rights

Arrest and Human Rights Standards

Everyone has the right to liberty and security of the person and to freedom of movement

- No one shall be subjected to arbitrary arrest or detention
- No one shall be deprived of his or her liberty except on such grounds and in accordance with such procedures as are established by law
- Anyone who is arrested shall be informed, at the time of the arrest, of the reasons for his or her arrest
- Anyone who is arrested shall be promptly informed of any charges against him or her
- Anyone who is arrested shall be brought promptly before a judicial authority

- Anyone who is arrested has the right to appear before a judicial authority for the purpose of having the legality of his or her arrest or detention reviewed without delay, and shall be released if the detention is found to be unlawful
- Anyone who is arrested has the right to trial within a reasonable time, or to release
- Detention pending trial shall be the exception rather than the rule
- All arrested or detained persons shall have access to a lawyer or other legal representative and adequate opportunity to communicate with that representative
- A record of every arrest must be made and shall include: the reason for the arrest; the time of the arrest; the time the arrested person is transferred to a place of custody; the time of appearance before a judicial authority; the identity of involved officers; precise information on the place of custody; and details of interrogation
- The arrest record shall be communicated to the detainee, or to his or her legal counsel
- The family of the arrested person shall be notified promptly of his or her arrest and place of detention
- No one shall be compelled to confess or to testify against himself or herself
- Where necessary, an interpreter shall be provided during interrogation

Violation of Human Rights by police and recent events

Police and security forces – torture and deaths in custody

The security forces, including army and paramilitary units deployed under emergency rule with the police, committed human rights violations with impunity, including torture and other ill-treatment and alleged extrajudicial executions. The police force was inadequately trained and equipped and lacked effective accountability and oversight mechanisms. Army personnel accused of human rights violations remained almost entirely outside the purview of civilian judicial accountability mechanisms.

Rang Lai Mro, a community leader in the Chittagong Hill Tracts, was arrested on 23 February and allegedly tortured by army personnel. He required hospital treatment for his injuries. He was charged with possession of arms and reportedly sentenced to 10 years' imprisonment. In October he was reportedly taken back into police custody, beaten again, and once more needed hospital treatment. There was no reported investigation into the torture allegations.

Sahebullah was reportedly detained on 16 May by Rapid Action Battalion (RAB) personnel and tortured in the office of the director of the Rajshahi Medical College Hospital. Both his legs were reportedly broken. He was arrested after demanding that a doctor attend to his wife, who had not been treated for 12 hours. She died the next day.

Law enforcement agencies were implicated in the deaths of more than 100 people in custody. No action was apparently taken to bring those responsible to justice.

Garos indigenous leader Cholesh Richil died on 18 May while in the custody of Joint Forces (army and police) personnel. There were strong indications that he died under torture. Three other members of the Garo community – Tohin Hadima, Piren Simsung and Protap Jambila were arrested at the same time and reportedly tortured. The government set up a judicial inquiry into Cholesh Richil's death, but there was no news about it by the year's end. (Amnesty international)

In the year 2005 from 1st January to 30th December, 396 people were killed in whole country

in the hand of law enforcement agencies. Of them, 111 people were killed by Rapid Action Battalion (RAB), 258 people were killed while they were in police custody, 4 people were killed by Cheetah and Cobra (special police forces) and 23 people by other forces. It is important to note that, among the 396, who were killed by law enforcement agencies, as many as 107 were killed in the crossfire of RAB, 212 people were killed in the crossfire of police and 4 were killed in the crossfire of Cheetah and Cobra and 17 were killed by other forces, this means as many as 340 people were killed by cease fire.

Recommendations

It is true that the majority portion of police and magistrates are still unaware of the High Court directives as to arrest and remand. The police officers and magistrates will never play their roles unless they are so guided and logistically supported by the government. Hence, following are some recommendations that may be helpful to prevent arbitrary arrest, torture and custodial violence, to change police behavior and to enhance police-public relations.

- The government needs to take initiatives to amend the laws to reflect the Supreme Court directives and guidelines.
- The government should take initiatives for high-level advocacy the change the behaviour and attitude of the police, and such advocacy should be started from the level of the inspector general downwards.
- The accountability of police officers should be ensured to bring about change in their behavior.
- The police should be allowed to act independent of political influence and the use of police for political purposes must be stopped.
- Local watchdog civil society groups should be formed to monitor police conduct.
- Motivational programmes should be taken up immediately to change the attitudes of the members of the police.
- Sufficient Human Rights training should be given to the police personnel.
- 8.A good number of people suggested establishing a monitoring cell in different Thanas to figure out whether there is any abuse of power by the police under section 54 and 167 of CRPC or not.
- There should be equality and fairness at the time of recruitment and training of the police.
- Police must accord human behavior to the arrestee and ensure that his/her fundamental human rights are not abridged while exercising their discretionary powers. Many opined that dialogue between the police and the people will serve to bridge the gap and foster better relationship between them which in turn would serve to reduce violence in police custody.
- Police Commissioners should be made responsible to find out the causes of abuse of police power.
- Police should be kept free from any political influence.
- If a person is arrested without any sufficient ground and harassed by the police, in such event the police must be forced to give compensation to the arrestee, so that the abusing tendency of the police power reduces.

Conclusion

Violation of human rights is one of the burning issues in the context of Bangladesh. At present it is a fundamental problem and a curse for Bangladesh. Prevention of violation of human rights is the concern issue for our Government. Undoubtedly, the police are under a legal duty and have legitimate right to arrest and interrogate the offenders. However, in exercising this legal right police have to be aware that law does not permit the use of torture, cruel and inhuman treatment on an arrestee during the interrogation and investigation of an offence. It is certain that Bangladesh want elimination of terrorism but arrest without warrant, remand in interrogation and custodial violence are not the solution. The Constitution of the People's Republic of Bangladesh is the supreme law of the land and right to life is a fundamental human right and law enforcement agencies are also bound to comply with the constitution while exercising their powers of arrest and detention. But to implement all these options, first of all its need a strong and impartial leadership more than a trained police force.

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Organizational Culture and Job Satisfaction in Banking Sector: A Study on Selected Branches in Sylhet Region

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Abstract

It is commonly believed that culture of an organization contributes to increase the performance when the culture is strong and have distinctive features. The objective of this study is to investigate the relationship of the cultural dimensions of the organizations with job satisfaction of employees in banking sector. There are six dimensions of organizational culture such as innovative and risk taking attitudes, people orientation, customer orientation, team orientation, ethical behaviour and nature of job satisfaction found in different popular texts. This study involved a questionnaire with thirty one statements interviewed from fifty respondents from eight private and two public banks in Sylhet, Bangladesh. The statements were in five-scale Likert questionnaire. The reliability of the statements for each dimension was confirmed by Cronbach's alpha. Employees' job satisfaction has maximum correlation (0.829) with innovative, flexible and risk taking attitudes of the organizations and minimum correlation (0.724) with team orientation of the organizations. Meanwhile, Job satisfaction has highest dependency on innovative, flexible and risk taking attitudes of the organizations. So the study reveals that Job satisfaction of employees is influenced by organizational culture of banking sector especially by innovative, flexible and risk taking attitudes and customer orientation of the banking organizations.

Keywords: *Organizational culture, Dimensions, Attitudes, Job satisfaction, Banking Sector*

1.0 Introduction

Culture can be a tangible or intangible environment in which a group of people live and work together in modern societies (Gjuraj, 2013). So employees' behaviour in their workplace is influenced by three different cultures such as their national, occupational and organizational culture. Organizational culture is a product of occupational relations among employees and between employees and customers. It is also adaptive to the organization's goals and strategies (Hofstede, 1991). Organizational culture has been a matter of research for many decades. Superior financial performance of some organisations has been attributed to the specific culture of each of the respective organisations in the analysis of Peters and Waterman (1982). Therefore, an organization's internal culture should be studied and measured. But most of the quantitative studies that have been conducted on organizational culture have

normally been executed in the developed countries and very little has been performed in developing countries (Davidson, 2003) such as Bangladesh, especially in the banking industry. It is an important and high growing industry of Bangladesh. It is assumed that the industry has a strong culture which has evolved during the last two decades. On the other hand, Job satisfaction is an important attitude which has impact on employees' behaviours in work place. Various studies reveal that job satisfaction plays an important role to an organization in terms of its efficiency, productivity, employee relations, absenteeism and turnover (Vroom, 1964; Mowday, 1981). The consequences of job satisfaction and dissatisfaction are extremely important for a banking organization because satisfaction of employees influences their work behaviour which in turn determines their efficiency and productivity (Vroom, 1964). So this study seeks to investigate the effect of different dimensions of organization culture on job satisfaction in the banking industry of Sylhet.

2.0 Review of literature

Organizational culture can be defined as the deep-level basic assumptions and beliefs that are shared by the members of an organization (Schein, 1992). An important aspect of this definition is to put importance on "shared". Organizational behaviour is presented by individual behaviours that are consistent with the deep-level basic underlying assumptions that form the organization culture (Schein, 1990). In the book "Organisational Culture and Leadership" that was published by Schein in 1992, it was noted that many researchers have acknowledged culture as a multidimensional concept. Schein also shows three levels of culture. The first level consists of visible organizational structures and actions such as dress code, facilities and procedures. This level is easily observable. The second level consists of values presented in the public images of organizations such as strategies, goals and policies of the organizations. These are not as visible as the artefacts presented in the first level. These values can be presented by norms which refer to the way things are done in the organizations. The third level consists of basic assumptions or unconscious beliefs, perceptions, thoughts, and feelings. These determine both behavioural norms which refer to the way people should behave and organizational values which refer to the things that are highly valued. The visible elements created by an organization on the first level are treated as objective organizational culture while the elements on the second and the third levels are treated as subjective organizational culture. Most of the researchers consent that subjective culture is more important determinant of beliefs, attitudes and behaviours. Thus it provides a more distinctive basis for identifying similarities and differences among people in different organizations (Buono and Bowditch, 1989). An organization also has a personality like a person which can be defined by its culture. This culture influences the way employees interact with others (Robbins and Coulter, 2012). Organizational culture is a collection of shared values, principles, traditions and ways of doing things that influence the way members of an organization interact with others. These shared values and practices have evolved over time in most of the organizations in our society and these values also establish to a large extent how works are done around the organizations (Denison, 1993; Hatch, 1993; Shadur and Kienzle, 1999).

Research suggests seven dimensions that can be used to describe an organization's culture

(Chatman and Jehn, 1994). These dimensions are Innovation and Risk Taking, Stability, Aggressiveness, Team Orientation, People Orientation, Outcome Orientation, Attention to detail which range from low to high degree. The meanings of these dimensions are as follows: Here Innovation and Risk Taking means the degree to which employees are encouraged to be innovative and to take risks. Stability means the degree to which organizational decisions and actions emphasize maintaining the status quo or avoiding change. Aggressiveness refers to the degree to which employees are aggressive and competitive rather than cooperative. Team Orientation refers to the degree to which work is organized around teams rather than individuals. People Orientation is the degree to which management decisions take into account the effects on people in the organization. Outcome Orientation is the degree to which the managers focus on results or outcomes rather than on how these outcomes are achieved. Another dimension is attention to detail which means the degree to which employees are expected to exhibit precision, analysis and attention to detail in their works. Describing an organization using these seven dimensions gives a composite picture of the organization's culture. In many organizations, one cultural dimension often is emphasized more than the others and basically shapes the organization's personality and the way members of the organizations work with others (Robbins and Coulter, 2012). All organizations have cultures but not all cultures equally influence employees' behaviours and actions. Strong cultures are those in which the key values are deeply held and widely shared. A strong culture is important because in organizations with strong cultures employees are more loyal than are employees in organizations with weak cultures (Va Vianen, 2000). The more employees accept the organization's key values and the greater their commitment to those values as a result the culture becomes stronger. The stronger a culture becomes the more it affects the managers' planning, organizing, leading and controlling activities (Berson, Oreg and Dvir, 2008). Strong cultures are associated with high organizational performance (Sorensen, 2002; Denison, 1990). Because values are clear and widely accepted and employees know what they're supposed to do and what's expected of them. So they can act quickly to take care of problems of the organization. But the negative aspect is that a strong culture also might create a strong mind set among the employees that hinder or resist new change initiatives or innovation in organization especially when external environment are changing quickly (Richman & May, 2004). The information was not available in literature about the organizational culture of Bangladesh. This situation makes us eager to study on the organizational culture of Bangladesh especially banking organization which is assumed as a large and strong industry. But the information on job satisfaction of employees in banking sector of Bangladesh was found in literature in some extent. These are given in the next part of this literature.

Job Satisfaction of employees

Job satisfaction has been an interesting phenomenon among researchers for several decades (Cranny, Smith and Stone, 2005; Spector, 1997). Many different definitions were found in literature, some definitions focus on the job itself while others include all the job-related factors. Many researchers have defined satisfaction as positive feelings or aggressive responses whereas others have defined it as the gap between the expected gain and the actual

gain. It can also be viewed as a collection of evaluative feelings about the job (Spector, 1985). According to the literature on the job satisfaction there are numerous factors that influence job satisfaction. These factors are divided into three categories which are the demographic data includes age, gender and race, some are the intrinsic factors that include achievement, recognition, work itself, responsibility, advancement and growth and the others are the extrinsic factors that include company policy, supervision, relationship with boss, work conditions, relationship with peers and salary (T. G. Worrell, 2004). A study on some private commercial banks of Bangladesh reveals that the determinants - Salary, Job security, Promotional opportunities, Fringe benefits, Job contents, Job-status, Working environment, Job autonomy, Management policies, Recognition for good work, Participation with decision making, Work schedule, Co-workers and Supervision have been assigned by both the top level and junior level executives as most important determinants of job satisfaction in banking sector. Wide variation in job satisfaction has been found between the top level and junior level executives. It is noticed that job satisfaction of junior level executives has been higher than that of top level executives both in terms of specific determinants as well as overall satisfaction scale (Hoque and Raihan, 2012). Another study on Janata bank (JBL) in Bangladesh reveals that the job satisfaction of the bankers mainly depends on some aspects like: salary, promotion, supervision, benefits, rewards, operating procedure, co-worker, nature of work, communication etc. It was found that the overall job satisfaction of the bankers is prevailing in JBL although in some of the areas they are not satisfied such as salary, promotion and benefits (Ahmed and Uddin, 2012). In the last few decades, academicians and researchers have received increasing attention to investigate the relationship between organizational culture and job satisfaction (Rad and Yarmohammadian, 2006; Yousef, 2000). Several studies in the area of organizational behaviour presented that the relationship between organizational culture and job satisfaction is significant and positive while other studies also have different views (Lok and Crawford, 1999). Organizational culture and job satisfaction were not explored rigorously enough in banking sector of Bangladesh. However, the study desires to test the relationship between organizational culture and job satisfaction in banking sector of Bangladesh especially in Sylhet region.

3.0 Research objectives

The main objective of this study is to investigate the relationship between organizational culture and job satisfaction of employees in the banking sector of Sylhet.

Based on this main research objective, the following specific objectives were addressed:

- To identify the relationship between demographic characteristics of employees and the levels of job satisfaction in banking sector of Sylhet.
- To determine the degrees of relationship between different dimensions of organizational culture and job satisfaction in banking sector of Sylhet.
- To find the dimensions of organizational culture which have high influence on employees' job satisfaction in banking sector of Sylhet.

4.0 Methodology of the study

4.1 Population & Sampling: The population of this study are the executive employees of

different banks in Sylhet city. The study has used purposive sampling method under non-probability sampling technique. The reason behind using this sampling technique is that there was unavailability of lists of bank executives from where sample can be drawn based on a probability technique. The sample size is fifty executive employees selected purposively for this analysis.

4.2 Instrument: A structured questionnaire has been developed based on the previous literature to collect information. The questionnaire consists of 31 items which have been identified from literature on different dimensions such as innovative, flexible and risk taking attitudes, people orientation, customer orientation, team orientation, ethical behaviour and the nature of job satisfaction. The reliability of the items for each dimension was confirmed by Cronbach's alpha. Minimum Cronbach's alpha (0.685) was found for the dimension of people orientation shown in Table-01. Each item or statement was set on five point likert scale ranging from 1= strongly disagree to 5= strongly agree.

4.3 Data Collection: Data has been collected by face to face interview with the bank executives of different banks in Sylhet city between the months of December 2014 and June 2015. Some secondary sources of data have also been used.

4.4 Data Analysis: Data has been analyzed by Statistical Package for Social Sciences (SPSS 20). Statistical tools like mean, standard deviation, percentage, Pearson correlation coefficient, chi-square test and regression have been used to interpret data.

Table 1: Reliability of the instruments of the study

Dimensions	Items /Variables	Cronbach's Alpha
Job Satisfaction of employees	5	0.773
Innovative, flexible and risk taking motive	5	0.817
People orientation	5	0.685
Customer orientation	5	0.828
Team orientation	5	0.917
Ethical Behaviour	6	0.808

Source: Survey data

5.0 Findings and Their Analyses

Data was analyzed through descriptive statistical methods with mean, standard deviation, percentage, Pearson correlation coefficient, chi-square test and regression. Here Table-2 contains profile of the respondents of this study. From the Table-2, it was obvious that the respondents aged above 30 years constitute majority of respondents with 28 (56%) of the total of respondents while the other respondents with age range between 25 to less than 30 years were 22 (44%). As mentioned earlier, the respondents for this study are employees in different private and public banks of Sylhet. From total of 50 respondents, it can be seen that 26 of respondents (52%) have working experience in their banks for less than 5 years, only 13 of respondents (26%) have working experience in their banks for 5-10 years and the remaining 11 of respondents have more than 10 years working experience in their banks.

Finally, about half of respondents with 24 (48%) of the total respondents are senior officers in position. Only 13 of respondents (26%) are managers in different areas and the rest of the respondents 9 (22.5%) are officers in different position. All this information has been summarized in Table-2.

Table 2: Profile of the Sample Respondents

Details		Frequency	Percentage
Positions	Manager	13	26.0%
	Sr. Officer	24	48.0%
	Officer	13	26.0%
Service Tenure	Below 5 years	26	52.0%
	5 - 10 years	13	26.0%
	Above 10 years	11	22.0%
Age	20 - 30 years	22	44.0%
	Above 30	28	56.0%

Table-3 provided means and standard deviations related to the perceptions of respondents of the banks about organizational culture and job satisfaction in their organizations. According to Table-3 the means of different cultural dimensions (the nature of job satisfaction, *innovative, flexible and risk taking attitudes*, people orientation, customer orientation, team orientation and ethical behaviour) are 4.14, 4.18, 4.01, 4.06, 4.33, 4.21 respectively while the standard deviations of their variables are 0.318, 0.251, 0.322, 0.505, 0.223 and 0.555 respectively. Therefore, as can be seen from Table-3, the participants of this study have pointed out that the dominant cultural dimensions in the banking sector of Sylhet are *innovative, flexible and risk taking attitudes*, team orientation and ethical behaviour.

This study has found that most of the organizations are innovative in competitive market and encourages their employees to develop new ideas. They are also flexible enough to cope with changing business environment especially technological environment. But the study found that reasonable rewards are not ensured for employees who develop new ideas. So encouraging innovation without proper reward systems may not influence employees work motivation.

The study also found high team motive in most of the organizations. They highly values and encourages team work for their employees although proper team culture is not established yet in all departmental activities of banking organizations. Only marketing departments are highly involved in team work. Most of the employees were found to share that they help each other for problem solving in their banks. So it could be concluded that mutual co-operative environment among the employees prevails in most of the banks.

On the other hand, the respondents asserted that they were satisfied enough with all the important facets of job satisfaction such as Friendly working environment with management and co-workers, Training and Personal Development and career development but the study found the least satisfaction on current pay scale. The mean of these facets are 4.32, 4.40, 4.14 and 3.60 respectively. This result was consistent with previous study by (Hoque and Raihan,

2012). From discussion above and Table-3, it could be concluded that the dominant cultural dimensions in banking sector of sylhet are *innovative, flexible and risk taking attitudes*, team orientation and ethical behavioural orientation and the respondents are satisfied enough in respect of all the facets of job satisfaction as well as in overall scale of satisfaction. Table-3 summarizes the means and standard deviations of these variables.

Table 3: Means and Standard Deviations of Variables

Dimensions	Items / Variables	CM	Mean	CSD	SD
Job Satisfaction of employees	1) Overall job satisfaction in organization	4.14	4.32	0.318	.7126
	2) Friendly working environment with Mgt and employees		4.40		.6061
	3) Right place for career development		4.14		.6064
	4) Training and Personal Development		4.26		.5646
	5) Current pay structure		3.60		1.228
Innovative, flexible and risk taking motive	6) Encourage new idea development	4.18	4.48	0.251	.5799
	7) Ready for any future change in business environment		4.30		.8144
	8) Cope with technological change		4.26		.8526
	9) Colleagues are innovative & willing to take risks		4.02		.6223
	10) Reward to innovative ideas		3.84		1.283
People orientation	11) Respect your personal rights	4.01	4.20	0.322	1.010
	12) Ensure maximum well fare for employees		3.78		1.374
	13) Treat you as a human resource		4.08		.4882
	14) Provide training for your performance development		4.40		.5714
	15) Reasonable authority to get your job done best		3.60		1.261
Customer orientation	16) Provide training to maintain friendly customer relationship	4.06	4.24	0.505	.9161
	17) Employees have freedom to meet changing customer demand		3.54		1.248
	18) Employees are empowered to take decision to please customer		3.52		1.265
	19) High importance to customer complaints and opinions		4.64		.4848
	20) Employees have highly customer service oriented behaviour		4.36		.5979
Team orientation	21) Your org. believe team effort can give high productivity	4.33	4.42	0.223	.8104
	22) Encourages you for team work		4.42		.9708
	23) Your org. gives high values on team performance		4.14		1.088
	24) Your Colleagues are interested in teamwork		4.08		1.122
	25) Employees help each other for problem solving		4.62		.8781

Ethical Behaviour	26) Top mgt. shows ethical behaviour for you	4.21	4.46	0.555	.8134
	27) Your org. has a formal code of ethics		4.62		.5674
	28) Provides training for improving employees' ethical behaviour		3.96		1.009
	29) Your org. rewards employees for ethical behaviour		3.22		1.314
	30) Takes immediate actions for unethical practice		4.72		.4965
	31) Your org. has a system to protect employees' unethical practices.		4.30		.8631

Note: CM and CSD means combined mean and combined standard deviation of the items in each dimension respectively.

Table-4 shows the relation of position, service tenure and age of respondents with job satisfaction by cross tabulation. It was obvious from this table that the relation of position and service tenure of respondents with job satisfaction is highly significant at 1% level with calculated values of chi-square 37.074 and 18.233 respectively which exceed the critical chi-square value ($X^2 = 13.27$) for 4 degree of freedom at 1% level of significance. In addition to that, the relation of age with job satisfaction is also highly significant at 1% level with calculated value of chi-square 12.280 which exceed the critical chi-square value ($X^2 = 9.21$) for 2 degree of freedom at 1% level of significance. So it could be concluded that the employees with higher positions and higher service tenure have job satisfaction significantly more than the employees with lower positions and lower service tenure in banking sector of Sylhet. High salary, high position power in organizations and high social status for higher positions might be responsible for this association to happen in banking sector of Sylhet.

Table 4: The relation of Position, Service Tenure and Age of Respondents with Job Satisfaction

Details		Three levels of JS			Total	Chi-square Value
		DS	S	HS		
Position of respondents Manager	Count	1	0	12	13	37.074*** With d.f 4
	% of Total	2%	0%	24%	26%	
Sr. Officer	Count	6	13	5	24	
	% of Total	12%	26%	10%	48%	
Officer	Count	10	3	0	13	
	% of Total	20%	6%	0%	26%	
Total	Count	17	16	17	50	18.233*** With
	% of Total	34%	32%	34%	100.0%	
Tenure of service	Count	12	12	2	26	
Below 5 years	% of Total	24%	24%	4%	52%	
Above 5 & Below 10	Count	4	2	7	13	
	% of Total	8%	4%	14%	26%	

Above 10 years	Count	1	2	8	11	d.f 4
	% of Total	2%	4%	16%	22%	
Total	Count	17	16	17	50	
	% of	34%	32%	34%	100.0%	
Age of respondents	Count	12	8	2	22	12.280*** With d.f 2
Above 25 and Below	% of Total	24%	16%	4%	44%	
Above 30	Count	5	8	15	28	
	% of Total	10%	16%	30%	56%	
Total	Count	17	16	17	50	
	% of Total	34%	32%	34%	100.0%	
	% of Total	34%	66%		100.0%	

Note: ***, ** and * represent 1%, 5% and 10% level of significance respectively. Here DS, S and HS mean dissatisfaction, satisfaction and highly satisfaction respectively.

To study the correlation between variables, Pearson coefficient was selected to investigate the correlation between these variables. Table-5 provided the findings of Pearson correlation between the variables of the study such as organizational culture and job satisfaction ($r = 0.888$). On the same line, based on the result of Pearson correlation, the relationship between different dimensions of organizational culture and job satisfaction is positive and significant at 1% level. Therefore, the highest correlation between different dimensions of organizational culture and job satisfaction was found between Innovative, flexible and risk taking motive (InnoRisk) and Job satisfaction (JS), $r = 0.829$ and the lowest correlation was found between Team orientation (TeamO) and Job satisfaction (JS), $r = 0.724$. Based on the results of the Pearson correlation between the variables of this study and their dimensions it could be concluded that the relationship between organizational culture and job satisfaction is significantly positive. These results are consistent with previous studies which were performed in different developing countries which concluded that the relationship between organizational culture and job satisfaction was positive and significant relationship. Table-5 summarizes the results of correlation. All the correlations are significant at 1% level.

Table 5: Correlation between organizational culture and job satisfaction***

Variables	JS	InnoRisK	PeopO	CustO	TeamO	EthicalB	OrgCulture
JS	1.0	.829	.800	.795	.724	.776	.888
OrgCulture	.888	.928	.869	.882	.862	.864	1.0

Note: ***All the correlations are significant at 0.01level

Regression analysis was used to test the models of the study. These models examine the relationship between organizational culture and job satisfaction. From Table-6 (A) the result of linear regression (*Model-1*) indicates that overall organizational culture has contributed significantly in the variability of job satisfaction by ($r^2 = 0.789$) 78.9% from the total

variability. While considering different dimensions of organizational culture in **Model-2**, the result of multiple regression indicates that the dimensions of organizational culture have also contributed significantly in the variability of job satisfaction by ($r^2 = 0.815$) 81.5% from the total variability of job satisfaction. Regression coefficients were found to be significant for organizational culture and job satisfaction in both models. Those could be confirmed by their respective t statistics and p-value. By looking at the beta coefficient for job satisfaction it can determine the relationship between organizational culture and job satisfaction. The regression models implied in this study were found statistically significant (P-value < 0.05). Those findings could be suggested that the models were able to fit the data. On the other hand, from the result of regression analysis it could be concluded that the relationship between organizational culture and job satisfaction is a positive relationship. Table-6 summarizes the results of regression analysis.

Table 6: Regression Analysis

A. Models summary

Models	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888a	.789	.785	1.31623
2	.903b	.815	.794	1.28646

a. Predictors: (Constant), OrgCulture

b. Predictors: (Constant), EthicalB, TeamO, CusO, PeopO, InnoRisK

B. Coefficients*

Models		Unstandardized Coefficients		Standardized Coefficients	t	P-value
		B	Std. Error	Beta		
1	(Constant)	3.863	1.272		3.037	.004
	OrgCulture	.156	.012	.888	13.397	.000
2	(Constant)	3.264	1.312		2.488	.017
	InnoRisK	.637	.222	.741	2.867	.006
	PeopO	.177	.126	.209	1.409	.166
	CusO	.263	.098	.341	2.672	.011
	TeamO	-0.217	.155	-0.325	-1.401	.168
	EthicalB	-0.002	.115	-0.003	-0.017	.987

*Dependent Variable: JS (Job Satisfaction)

Here it is an effort to find out those dimensions of organizational culture which have noticeable influence on job satisfaction. For the above said purpose multiple regression analysis method has been applied. It is a general rule that variables having a t-ratio equal or above 2 are more significant. Therefore the study will follow the same rule of thumb. According to the Table-6 (B) out of five selected dimensions of organizational culture, **Innovative, flexible and risk taking motive "InnoRisK"** affects job satisfaction maximum

(with t-statistic = 2.867 and coefficient = 0.637). It indicates that the more *Innovative, flexible and risk taking motive* the organizations can adopt in actions, the more the employees are satisfied in banking organizations. *Customer orientation of organizations* "CusO" also affects job satisfaction significantly after "InnoRisK" (with t-statistic = 2.672 and coefficient = 0.263). It indicates that the more Customer oriented actions the organizations can adopt to satisfy customers, the more the employees are satisfied in banking organizations because employees have to satisfy customers by their services which are designed by the banks. So the banks should design customer oriented policies and strategies to help the employees serve customers effectively. As a result this will create more satisfaction in jobs of banking organizations. Finally it could be concluded that job satisfaction of employees has positive dependency on overall organizational culture of banks. This was found statistically highly significant (with t-statistic = 13.397 and coefficient = 0.156) in banking sector of Sylhet. So the study might reveal a framework (Figure-1) to show the relation between organizational culture and job satisfaction of employees in banking sector of Sylhet.

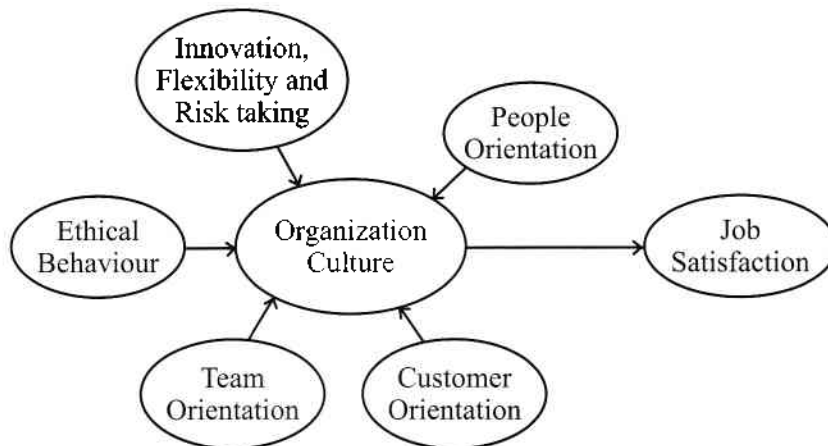


Figure 1: A frame work of organisational culture and job satisfaction in banking sector

6.0 Conclusion

The intention of this study was to investigate the relationship between organizational culture and job satisfaction in banking sector of Sylhet. By using questionnaires, data was gathered on different dimensions of organizational culture from fifty executive employees of different banks in Sylhet region. Descriptive statistics were presented in this study by using mean, standard deviation, reliability analysis, Pearson correlation, Chi-square test and Regression analysis. This study concludes that the relationship between organizational culture and job satisfaction and between different dimensions of organizational culture such as (*innovative, flexible and risk taking attitudes*, people orientation, customer orientation, team orientation and ethical behaviour) and job satisfaction was positive and significant relationship while the *innovative, flexible and risk taking attitudes* and customer oriented actions of the banking organizations might be the most influential cultural dimensions for job satisfaction. Besides,

the study also found that higher job positions and higher service tenure have significant association with higher job satisfaction in banking sector of Sylhet. Furthermore the study reveals a framework to show the relation between organizational culture and job satisfaction of employees in banking sector. This might be studied comprehensively in future throughout the country to understand organizational culture of Bangladesh.

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Bangladeshi Consumers' Attitude toward Foreign Products- A Study on Consumers of Electronic Products in Sylhet

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Abstract

Bangladesh is still a technologically developing country. Though various electronic goods are produced domestically Bangladesh mainly depends on imported electronic products. Consumers of electronic goods have both favorable and unfavorable attitude toward foreign made electronic goods. Imported electronic goods have high quality, performance, features and brand equity but these are expensive, deplete foreign currencies and provide minimum after sale services. This study investigates the attitudes of Bangladeshi customers toward foreign electronic goods. The variation of consumers' attitude regarding different demographic variables is detected in this study. Data were collected from 190 respondents and analyzed using one way ANOVA and compared mean t-test. It is found in the study that there is no variation in consumers' attitude with respect of different age group, educational level and income status. But diverse gender and occupation demonstrate differing attitudes.

Key words: *Attitude, Electronic goods, Demographic variables, brand equity*

Introduction

A country cannot produce all the necessary products by its own. Each countries in the world has to import some products which they cannot produce or not economical for them to produce. As a developing country, Bangladesh has to import lots of products lines from other countries. This study attempts to investigate the attitude of consumers toward foreign products. An attitude is a learned predisposition to behave in a consistently favorable or unfavorable way with respect to a given object. Here the given object is electronic products (such as, TV, refrigerator, mobile phone, fan, air-conditioner, sound systems etc.). Researchers discovered the behavior of consumers toward foreign made electronic products. Since Bangladesh is a technologically developing country, every year it has to import lots of electronic products and has to spend bundles of foreign currencies. If it is possible to know the consumers' attitude toward foreign made electronic products, domestic producers can redesign their offerings and marketing strategies and thus can save domestic businesses and foreign currencies.

Literature review

There is number of studies were conducted around the world to identify the attitude of consumers toward foreign made products. The outcomes of few studies are presented below:

Ferguson et al., (2008) showed that products from the technologically advanced countries were viewed more positively by nationals of developing countries than those from the technologically less advanced countries. Ferguson et al. (2008) have studied the country of origin effects in service evaluation in five West African countries. They found that personal characteristics like motivation and ability to process information may influence use of the country of origin trait in evaluating a service. Moreover individual characteristics such as ethnocentrism, culture orientation may manipulate the country of origin affection in service evaluation.

Samiee (1994) defined country of origin effect as the influence or bias that consumers may have resulting from the country of origin of the product or service or its associated products. The results of the effects may be varied: some of them may be due to the familiarity of the consumers of the country of origin; acquaintance of the country of origin of the product; political beliefs; ethnocentric tendencies and fear of the unknown.

Kyanak & Kara (2002) explored the product-country images, lifestyles and ethnocentric behaviors of Turkish consumers. They indentified that Turkish consumers had significantly diverse perceptions of products attributes for the products coming from countries of different levels of socio economic and technological development. It lent support to earlier studies conducted in western countries and also indicates the vigor of ethnocentrism scale which was developed in USA to measure attitudes in advanced developing countries. Also results of the study revealed that there were several lifestyle dimensions apparent among the Turkish consumers, which were closely correlated to ethnocentric biases.

Lee & Simon (2006) examined how consumers' perceptions on the quality of products are influenced by the marketing appeals of multi-national firms and by the country of origin effects. They presents finding derived from country of origin effect, corporate images, and its brand image and purchase intention survey conducted in Almaty, Kazakhstan, considered being a developing countries and transition economies. The findings suggested that the attitudes of consumers towards country of origin and corporate image exert a great deal of influence on their perceptions of product quality and purchase behavior, the effect of certain country image appeals on the purchase behavior and moderated by socio-economic and national cultural characteristics.

Netemeyer, Durvasula & Lichtenstein (1991) on a cross-national sample of Western European and Japanese consumers. However, in these studies respondents evaluated products from different developed countries that were largely comparable with respect to quality. The former Eastern bloc countries are quite different from the western markets. In these countries, western products tend to be preferred to domestic products due to their superior quality.

Papadopoulos, Helsop & Beracs (1990) found that Hungarians generally evaluated western products more positively than national products. Similar findings have been reported for polish and Russian consumers.

Bilkey and Nes, (1982) have found that the country of origin, among other attributes, might be considered as a determinant criterion in the consumer decision process. In some cases, the

countries' manufacturing and technological abilities are used usually as an indication of the products' quality.

Jaffe and Martinez (1995) found that Mexicans have a poor perception of domestic goods, ranking American and Thailand household electronic products above Mexican-made brands. Upper-income earners in the same country have been recognized to favor foreign products. Jordan (1996) reported that there is a great demand for Western consumer goods among Indian consumers.

Kaynak, Kucukemiroglu and Hyder (2000) found that Bangladeshi consumers incredibly favored western made goods, though there were differences in their discernments across product classes as well as degree of aptness of sourcing countries.

Khan and Bamber (2007) also found out that the elite segment of Pakistanis perceive country of origin image as one of the distinct attributes when making a purchasing decision. A study has also reported that Mexicans have a strong taste for foreign products.

Consumers' attitudes towards foreign products are widely discussed by the renowned researchers of marketing (Muhammad and Shah, 2011). Attitudes towards products option are examined through true motives, desires, and expectations in buying a product. Consequently, 'consumers' approaches toward products originating from overseas countries have been of interest to international business and consumer behavior researchers for decades. One of the factors which may affect a consumer's decision to buy domestic or foreign products is consumer ethnocentrism (Sumner, 1985) in Habibur et al., (2011).

From the appraisal of previous studies it is found that consumers' attitude toward foreign products varies from country to country. Though there are many studies conducted in this field around the world, few studies have been conducted in the perspective of Bangladesh. Bangladesh is still developing its electronics industries. Though domestic companies produce a wide range of electronic goods still we have to import lots of foreign goods. So it is essential to know the attitudes of Bangladeshi electronic goods consumers toward foreign electronic products.

Objective(s) of the Study

The main objectives of the study are as follows:

- a) To identify the attitude of consumers toward foreign made electronic products.
- b) To identify the influence of demographic factors on consumers' attitude formation toward foreign products.
- c) To identify consumers' perception toward quality, price and service of foreign made electronic products.

Methodology of the study

Population and sampling design:

The data were collected from different areas of Sylhet division from January, 2016 to March, 2016. The sample size was 190 and sampling method adopted was a combination of Judgmental and convenience sampling.

Sample characteristics:

The respondents were chosen irrespective of gender, age, income, education, occupation, religion, location. All the interviewed respondents were consumer of different type electronic products.

Instrumentation:

The instrument used for data collection was a questionnaire developed to assess the attitude of consumer toward foreign made electronic product. A five point scale of strongly agree (5), Agree (4), Neutral (3), Disagree (2) strongly disagree (1) were used to measure the responses for the respondents.

Data analysis:

Collected data were analyzed through one-way ANOVA to discover whether the different classes of each demographic variables show similar or dissimilar tendency. Statistical software SPSS was used for data analysis.

Reliability:

Table-1 : Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Item
0.698	0.656	11

Table-1 shows the reliability of variables, which were used in this research. Cronbach's Alpha describes the internal consistency of the instrument. Here Cronbach's Alpha value is found 0.698 which is a good indicator.

Hypotheses of the study

The following hypotheses have formulated on the basis of objective of the study:

H_{o1}: Different age groups people show same attitude towards foreign electronic products.

H_{a1}: Different age groups people show different attitude towards foreign electronic products.

H_{o2}: Respondents of different education level show same attitude towards foreign electronic products.

H_{a2}: Respondents of different education level show different attitude towards foreign electronic products.

H_{o3}: Respondents of different income levels show same attitude towards foreign electronic products.

H_{a3}: Respondents of different income levels show different attitude towards foreign electronic products.

H_{o4}: Respondents of different occupations show same attitude towards foreign electronic products.

H_{a4}: Respondents of different occupations show different attitude towards foreign electronic products.

H_{o5}: Male and female respondents show same attitude towards foreign electronic products.

H_{a5}: Male and female respondents show different attitude towards foreign electronic products.

Data analysis and findings

Table-2: Demographic profile of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	102	53.7	53.7	53.7
	Female	88	46.3	46.3	100.0
	Total	190	100.0	100.0	
Age	10-20 Years	27	14.2	14.2	14.2
	21-25 Years	71	37.4	37.4	51.6
	26-30 years	28	14.7	14.7	66.3
	31-35 years	44	23.2	23.2	89.5
	36-40 years	15	7.9	7.9	97.4
	Above 40 years	5	2.6	2.6	100.0
	Total	190	100.0	100.0	
Education	Primary	7	3.7	3.7	3.7
	Secondary	25	13.2	13.2	16.8
	Higher School	31	16.3	16.3	33.2
	Graduate	90	47.4	47.4	80.5
	Post graduate	25	13.2	13.2	93.7
	Others	12	6.3	6.3	100.0
	Total	190	100.0	100.0	
Monthly family income	Less then TK. 10,000	21	11.1	11.1	11.1
	Above TK. 10,000-20,000	33	17.4	17.4	28.4
	Above TK. 20,000-30,000	65	34.2	34.2	62.6
	Above TK. 30,000-40,000	29	15.3	15.3	77.9
	Above TK. 40,000-50,000	22	11.6	11.6	89.5
	Above TK. 50,000	20	10.5	10.5	100.0
	Total	190	100.0	100.0	
Occupation	Business	33	17.4	17.4	17.4
	Service	32	16.8	16.8	34.2
	Student	72	37.9	37.9	72.1
	House wife	30	15.8	15.8	87.9
	Others	23	12.1	12.1	100.0
	Total	190	100.0	100.0	

Table-3 : ANOVA on the basis of different age groups

		Sum of Squares	df	Mean Square	mean	F	Sig.
Using /Buying a foreign made product makes me ashamed(V1)	Between Groups	9.990	5	1.998	3.6263	1.492	.195
	Within Groups	246.478	184	1.340			
	Total	256.468	189				
I think quality of foreign products is higher than domestic ones(V2)	Between Groups	8.980	5	1.796	3.3211	1.154	.334
	Within Groups	286.436	184	1.557			
	Total	295.416	189				
Using/buying foreign brands increases my social status(V3)	Between Groups	17.213	5	3.443	3.0474	1.834	.108
	Within Groups	345.361	184	1.877			
	Total	362.574	189				
Foreign Brands are more durables and reliable than domestic brand(V4)	Between Groups	6.534	5	1.307	3.3211	.740	.594
	Within Groups	324.882	184	1.766			
	Total	331.416	189				
I prefer foreign products even at a higher price(V5)	Between Groups	12.593	5	2.519	3.2789	1.459	.205
	Within Groups	317.622	184	1.726			
	Total	330.216	189				
Buying foreign products is less risky since these products ensure quality and standards(V6)	Between Groups	7.395	5	1.479	3.6263	.880	.495
	Within Groups	309.074	184	1.680			
	Total	316.468	189				
Bangladeshi people should not buy foreign product, because this hurts Bangladeshi business and cause unemployment(V7)	Between Groups	10.974	5	2.195	3.6526	1.442	.211
	Within Groups	280.100	184	1.522			
	Total	291.074	189				
I do not purchase foreign products if domestic alternatives are available.(V8)	Between Groups	8.832	5	1.766	3.3842	1.076	.375
	Within Groups	302.120	184	1.642			
	Total	310.953	189				
Foreign products provide less after sale service(V9)	Between Groups	7.733	5	1.547	2.9632	.876	.499
	Within Groups	325.009	184	1.766			
	Total	332.742	189				
I always prefer to buy Foreign made products(V10)	Between Groups	11.188	5	2.238	2.7789	1.192	.315
	Within Groups	345.528	184	1.878			
	Total	356.716	189				

H_0 : Different age groups people show same attitude towards foreign electronic products.

H_a : Different age groups people show different attitude towards foreign electronic products.

Comment

From the above table it is seen that for the selected 11 consumer attitude related variables among the different age groups the value of F statistics are not significant. That means, our

null hypothesis is accepted. It indicates that in case of purchasing foreign electronic products age is not a significant factor. For the variables V1, V6, V7 they are moderately agreed (mean 3.6263, 3.6263, and 3.6526), for V2, V4, V5, V8 they are more than neutral but not agree (mean 3.3211, 3.3211, 3.2789, 3.3842), for V3 they are neutral (mean 3.0474) and for V9, V10 they are near about to neutral on their opinion (mean 2.9632, 2.7789).

Table – 4 : ANOVA on the basis of education level

		Sum of Squares	df	Mean Square		F	Sig.
Using /Buying a foreign made product makes me ashamed(V1)	Between Groups	5.913	5	1.183	3.6263	.868	.503
	Within Groups	250.556	184	1.362			
	Total	256.468	189				
I think quality of foreign products is higher than domestic ones(V2)	Between Groups	16.418	5	3.284	3.3211	2.165	.049
	Within Groups	278.998	184	1.516			
	Total	295.416	189				
Using/buying foreign brands increases my social status(V3)	Between Groups	14.077	5	2.815	3.0474	1.487	.196
	Within Groups	348.496	184	1.894			
	Total	362.574	189				
Foreign Brands are more durables and reliable than domestic brand(V4)	Between Groups	13.872	5	2.774	3.3211	1.608	.160
	Within Groups	317.544	184	1.726			
	Total	331.416	189				
I prefer foreign products even at a higher price(V5)	Between Groups	10.376	5	2.075	3.2789	1.194	.314
	Within Groups	319.840	184	1.738			
	Total	330.216	189				
Buying foreign products is less risky since these products ensure quality and standards(V6)	Between Groups	15.885	5	3.177	3.6263	1.945	.089
	Within Groups	300.583	184	1.634			
	Total	316.468	189				
Bangladeshi people should not buy foreign product, because this hurts Bangladeshi business and cause unemployment(V7)	Between Groups	12.577	5	2.515	3.6526	1.662	.146
	Within Groups	278.496	184	1.514			
	Total	291.074	189				
I do not purchase foreign products if domestic alternatives are available.(V8)	Between Groups	10.584	5	2.117	3.3842	1.297	.267
	Within Groups	300.368	184	1.632			
	Total	310.953	189				
Foreign products provide less after sale service(V9)	Between Groups	13.009	5	2.602	2.9632	1.497	.193
	Within Groups	319.733	184	1.738			
	Total	332.742	189				
I always prefer to buy Foreign made products(V10)	Between Groups	18.130	5	3.626	2.7789	1.970	.045
	Within Groups	338.586	184	1.840			
	Total	356.716	189				

H₀₂: Respondents of different education level show same attitude towards foreign electronic products.

H_{a2}: Respondents of different education level show different attitude towards foreign electronic products.

Comment

It is apparent from the Table-4 : that the null hypothesis is accepted for all the variables except the V2 and V10, as the p-values are closer to significance value whereas these are greater for the other variables. That means, for the variables “I think quality of foreign products is higher than domestic ones(V2)” and “I always prefer to buy Foreign made products (V10)”, the respondents of different education level posses different opinion. For variables V1, V6, V7 respondents of different education level are near about to agree (mean 3.6263, 3.6263, 3.6526) with their opinion whereas they are almost neutral (mean 3.04 and 2.96) for the variables V3 and V9.

Table- 5: ANOVA on the basis of income level

		Sum of Squares	df	Mean Square	Mean	F	Sig.
Using /Buying a foreign made product makes me ashamed(V1)	Between Groups	6.910	5	1.382	3.6263	1.019	.408
	Within Groups	249.559	184	1.356			
	Total	256.468	189				
I think quality of foreign products is higher than domestic ones(V2)	Between Groups	2.304	5	.461	3.3211	.289	.919
	Within Groups	293.112	184	1.593			
	Total	295.416	189				
Using/buying foreign brands increases my social status(V3)	Between Groups	11.904	5	2.381	3.0474	1.249	.288
	Within Groups	350.670	184	1.906			
	Total	362.574	189				
Foreign Brands are more durables and reliable than domestic brand(V4)	Between Groups	11.148	5	2.230	3.3211	1.281	.274
	Within Groups	320.268	184	1.741			
	Total	331.416	189				
I prefer foreign products even at a higher price(V5)	Between Groups	7.928	5	1.586	3.2789	.905	.479
	Within Groups	322.288	184	1.752			
	Total	330.216	189				
Buying foreign products is less risky since these products ensure quality and standards(V6)	Between Groups	5.069	5	1.014	3.6263	.599	.701
	Within Groups	311.400	184	1.692			
	Total	316.468	189				
Bangladeshi people should not buy foreign product, because this hurts Bangladeshi business and cause unemployment(V7)	Between Groups	9.218	5	1.844	3.6526	1.203	.309
	Within Groups	281.856	184	1.532			
	Total	291.074	189				
I do not purchase foreign products if domestic alternatives are available.(V8)	Between Groups	2.884	5	.577	3.3842	.344	.885
	Within Groups	308.069	184	1.674			
	Total	310.953	189				

Foreign products provide less after sale service(V9)	Between Groups	6.833	5	1.367	2.9632	.772	.571
	Within Groups	325.909	184	1.771			
	Total	332.742	189				
I always prefer to buy Foreign made products(V10)	Between Groups	16.383	5	3.277	2.7789	1.771	.121
	Within Groups	340.333	184	1.850			
	Total	356.716	189				

H₀₃: Respondents of different income levels show same attitude towards foreign electronic products.

H_{a3}: Respondents of different income levels show different attitude towards foreign electronic products.

Comment

As the p-values are greater than the significance value (0.05) for all variables then we may accept the null hypothesis. That means, consumers of different income levels do not show different attitude towards foreign electronic products. For the variables V1, V6, V7 they are near to agree, for V2, V4, V5, V8 they are not fully agree but more than neutral and for V3, V9, V10 they are almost neutral on their opinion.

Table- 6 : ANOVA on the basis of occupation

		Sum of Squares	df	Mean Square	Mean	F	Sig.
Using /Buying a foreign made product makes me ashamed(V1)	Between Groups	21.478	4	5.370	3.6263	4.227	.003
	Within Groups	234.990	185	1.270			
	Total	256.468	189				
I think quality of foreign products is higher than domestic ones(V2)	Between Groups	17.741	4	4.435	3.3211	2.955	.021
	Within Groups	277.675	185	1.501			
	Total	295.416	189				
Using/buying foreign brands increases my social status(V3)	Between Groups	5.985	4	1.496	3.0474	.776	.542
	Within Groups	356.589	185	1.928			
	Total	362.574	189				
Foreign Brands are more durables and reliable than domestic brand(V4)	Between Groups	16.607	4	4.152	3.3211	2.440	.048
	Within Groups	314.809	185	1.702			
	Total	331.416	189				
I prefer foreign products even at a higher price(V5)	Between Groups	17.119	4	4.280	3.2789	2.529	.042
	Within Groups	313.097	185	1.692			
	Total	330.216	189				
Buying foreign products is less risky since these products ensure quality and standards(V6)	Between Groups	25.060	4	6.265	3.6263	3.977	.004
	Within Groups	291.408	185	1.575			
	Total	316.468	189				

Bangladeshi people should not buy foreign product, because this hurts Bangladeshi business and cause unemployment(V7)	Between Groups	9.777	4	2.444	3.6526	1.608	.174
	Within Groups	281.297	185	1.521			
	Total	291.074	189				
I do not purchase foreign products if domestic alternatives are available.(V8)	Between Groups	2.238	4	.560	3.3842	.335	.854
	Within Groups	308.714	185	1.669			
	Total	310.953	189				
Foreign products provide less after sale service(V9)	Between Groups	17.663	4	4.416	2.9632	2.593	.038
	Within Groups	315.079	185	1.703			
	Total	332.742	189				
I always prefer to buy Foreign made products(V10)	Between Groups	7.043	4	1.761	2.7789	.931	.447
	Within Groups	349.673	185	1.890			
	Total	356.716	189				

H₀: Respondents of different occupations show same attitude towards foreign electronic products.

H_a: Respondents of different occupations show different attitude towards foreign electronic products.

Comment

From the Table-6 it reveals that on the basis of different occupation for the variables V1, V2, V4, V5, V6, V9 the null hypothesis may be rejected because the p-values are less than 0.05 which indicates that consumers of different occupation have different attitude towards foreign electronic products and for the variables V3, V7, V8, V10 the null hypothesis is accepted. It explores the fact that attitude towards foreign electronic products vastly differs on the basis of different occupation.

Table-7 : Compare means t test on the basis of gender

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Using /Buying a foreign made product makes me ashamed(V1)	2.418	188	.017	.40463	.16735
I think quality of foreign products is higher than domestic ones(V2)	.029	188	.977	.00535	.18238
Using/buying foreign brands increases my social status(V3)	-.822	188	.412	-.16578	.20169
Foreign Brands are more durables and reliable than domestic brand(V4)	.906	188	.366	.17469	.19275
I prefer foreign products even at a higher price(V5)	-2.737	188	.007	-.51760	.18909
Buying foreign products is less risky since these products ensure quality and standards(V6)	-.661	188	.510	-.12455	.18855

Bangladeshi people should not buy foreign product, because this hurts Bangladeshi business and cause unemployment(V7)	.401	188	.689	.07264	.18096
I do not purchase foreign products if domestic alternatives are available.(V8)	1.457	188	.147	.27117	.18606
Foreign products provide less after sale service(V9)	.960	188	.338	.18538	.19308
I always prefer to buy Foreign made products(V10)	-1.001	188	.318	-.20009	.19988

H₀₅: Male and female respondents show same attitude towards foreign electronic products.

H_{a5}: Male and female respondents show different attitude towards foreign electronic products.

Comment

Table-7 shows that for the variables V1 and V5 the null hypothesis is rejected otherwise accepted i.e. for "Using /buying a foreign made product makes me ashamed (V1)" and "I prefer foreign products even at a higher price (V5)" male and female consumers do not show same attitude.

Conclusion

Every enlightened individual possess an immense love for his/her own country and think for the betterment of their country as a whole. They may think that that purchasing foreign products can harm their domestic economy. But still individual customers have to buy some products which are made in foreign countries. The main objective of this study was to explain the attitude of Bangladeshi electronic goods consumers toward foreign brands. Attitude is a manner of thinking or feeling of an individual regarding any object. Attitude is a personality trait which may vary person to person and may change over time. In this study, it is discovered that whether the attitudes of consumers of different demographic characteristics regarding foreign made electronic goods are same or not. By evaluating the responses of 190 customers of electronic goods this study reveals that different age groups, educational levels and income levels show similar attitude toward foreign made electronic goods in their respective classes. This study conducted only in Sylhet division which may not reflect the overall scenario. Some other variables such as religion, family size, geographic area etc. may be taken in consideration for further studies.

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Impediments of ADP Implementation and Impact of Sectorwise ADP Expenditures on Economic Growth in Bangladesh

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Abstract

The purpose of this research paper is to identify the major impediments of ADP implementation and impact of sector wise ADP expenditure on economic growth in Bangladesh. Statistical tools such as factor analysis, test of hypothesis, correlation, regression and trend analysis have been conducted based on both primary and secondary data in this regard. The study identifies that sector wise ADP expenditures are highly positively correlated with GDP in Bangladesh. From the trend analysis based on data of last forty years (FY 1976-2016), the study has found that there is a significant gap between ADP allocation and ADP implementation. Besides, the study concludes that sector wise ADP allocation can accelerate GDP growth through ADP implementation if administrative and managerial skills to manage equipment and human resources to implement projects can be developed.

Keywords: ADP, GDP, Public Investment

1.0 Introduction

Annual Development Program is a list of several projects and allocation of fund for their implementation which is formulated by planning commission based on development budget and approved by the parliament. National economic development related projects get priority during preparing ADP. Both internal (domestic) and external (foreign aid) funds are used for financing the implementation of projects. Public investment in other countries is equivalent to the ADP in Bangladesh. Public investment and private investment both are essentially required to boost economic growth in Bangladesh. Due to having low infrastructure, public investment is more important for Bangladesh compared to other developing countries [24]. Just after the liberation of Bangladesh (FY1972-73), the size of ADP was Tk. 5.01 billion which has become Tk. 778.36 billion in FY 2014-15) with 91% implementation of the allocation. According to the data of last forty fiscal years, average ADP implementation is 90% of allotment [5]. In every year allocation of ADP is being increased in the grounds of enhancement of income, poverty reduction, infrastructure development, human resource development etc. Government of Bangladesh revises the ADP almost every year due to failure of receiving foreign aid, poor utilization of foreign aid, delays in project approval, lack of infrastructure facility, procurement related problems [4] etc. Needless to say that ADP

implementation is essential part of overall economic development in Bangladesh.

2.0 Rational of the study

From the review of several literatures some research gap have been found such as identification of prime impediments of ADP implementation, determining the impact of sector wise ADP expenditure on GDP to determine relatively important sector etc. Hence, it is required to find out the major impediments of ADP implementation as there is significant gap between ADP allocation and ADP implementation based on most recent data applying factor analysis. Besides, it is also needed to study the relationship between sectorwise ADP expenditure and GDP applying econometric techniques.

3.0 Objective of the Study

- To depict the annual development program and economic growth scenario in Bangladesh
- To identify the prime impediments of ADP implementation
- To analyze the impact of sector wise ADP expenditure on GDP
- To recommend some measures for implementation of ADP properly to accelerate economic growth in Bangladesh

4.0 Research Methodology

4.1. Type of research

The research is empirical in nature. Numerical evidences along with theoretical analysis have been used to validate the findings of the paper comprehensively [2] because hypothesis and different assumptions have been properly verified using authentic data and econometric tools. Data has been presented in logical and simple form.

4.2. Data Sources

Data required for the research were collected from both primary and secondary data sources. Secondary data was generated from economic reviews, different websites, journals, etc. A survey has been conducted taking opinion from the government employees associated with different ministries of public investment in Bangladesh. Data of last forty years (FY 1976-2016) regarding ADP allocation and ADP expenditure have been taken into consideration to conduct econometric analysis. Besides, data of sectorwise ADP expenditure and GDP (current price) for nine fiscal years (2006-2015) has also been taken into consideration as secondary data. Data were compared critically and found insignificant mismatching in material facts.

4.3. Variables Covered

Well accepted regression models have been developed in the study for to determine the sector wise ADP expenditure on GDP (current market price). Besides, factor analysis regarding impediments of ADP implementation has covered six factors and 19 variables under those six factors. The factor analysis regarding impediments of ADP implementation with the factors and variables covered is shown in appendix (Table-01).

4.4. Sampling Method

For conducting the study purposive sampling (SRS) has been adopted to survey the respondents. Total 100 structured questionnaires were provided among the respondents as total sample size of the survey. The survey was conducted in August 2016.

4.5. Data Analysis Tools

Data has been analyzed in SPSS 16.0 under some specific hypothesis. Statistical tools like correlation coefficient, regression coefficient and coefficient of determination, analysis of variance (ANOVA), trend analysis and factor analysis were used. Besides, Microsoft Excel has been used to show year to year trend, sector wise contribution of GDP etc.

5.0 Limitation of the Study

- It is not possible to draw multiple regression models that requires linear regression model only as there is high correlation among the independent variables (ADP expenditure of agriculture, industry and service sector respectively).
- The survey has been conducted through purposive sampling rather than random sampling.

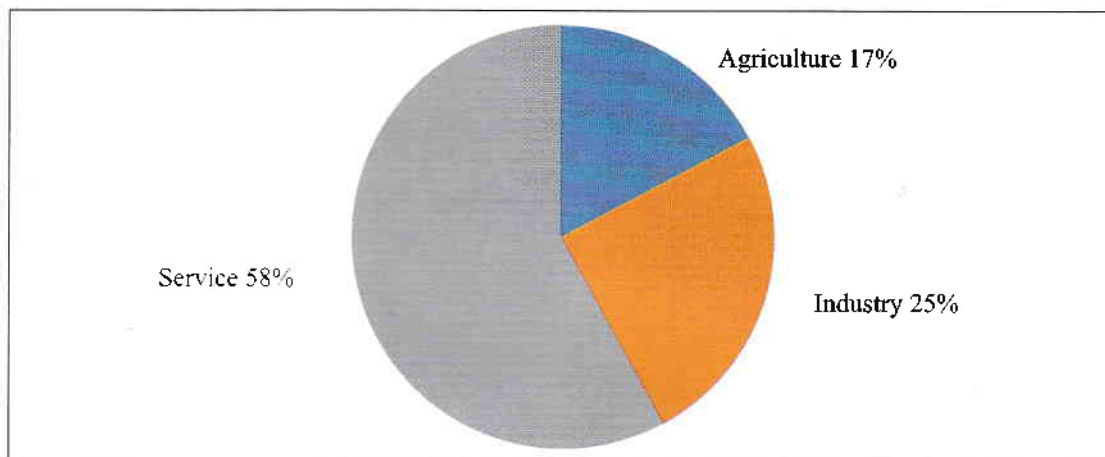
6.0 Review of Literature

Tobin (1968), has identified that monetary expansion can generate higher economic growth resulting reduced purchasing power of money. **Mustafa, Kivilcim and Aysit (2002)** have found that macroeconomic instability is the severe interference to public investment where public infrastructure investment does not have any impact on private sector investment. **Rahman (2005)** in his study has found that in case of long term economic growth of Bangladesh, effects of private sector investment and public sector investment differ significantly concluding that private sector investment plays more significant role compared to public sector investment in economic growth. **Haque (2013)** in his study has identified positive relationship between public and private investment and economic growth in short and long run where private investment is more effective compared to public investment. **Uddin, Chowdhury and Ahmed (2015)** has pointed out that if ADP can be handled efficiently by the authority keeping high level of public planning and improvement in institutional surroundings, it can promote economic growth.

7.0 Sectorwise Contribution and Composition of GDP and Sectorwise ADP expenditure

Economic growth in Bangladesh is mainly indicated by the GDP growth rate which is around 6.16 percent throughout the last 12 years (2004-2015) [7]. ADP allocation and implementation in several sectors that constitute GDP accelerate GDP growth rate as source of public investment.

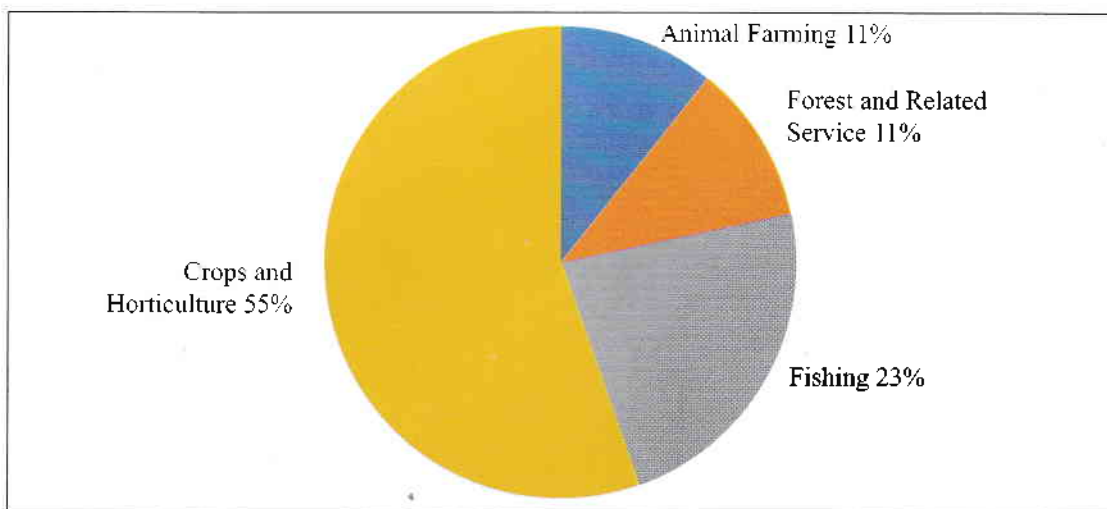
Figure-01: Sector wise contribution of GDP (average)



Source : Bangladesh Economic Review 2014-15

From the above graph, we observe that agriculture sector had lowest contribution (17%) in total GDP over the last ten years (FY 2005-06 to FY 2014-15) among the three major sectors of GDP however it is not proportional to the fund disbursement to this sector (7%) from financial institutions for investment. The highest loan disbursement (48%) goes to industry sector that contributes only 25% in total GDP. On the other hand, service sector has highest contribution (58%) in total GDP that utilizes only 45% of total loan disbursement in the three major sectors of GDP. It seems that disbursed loanable fund is more utilized in service sector rather than any other sector of GDP. On the other hand, industry sector requires more utilization of fund to contribute more in total GDP and drive growth in this sector [15].

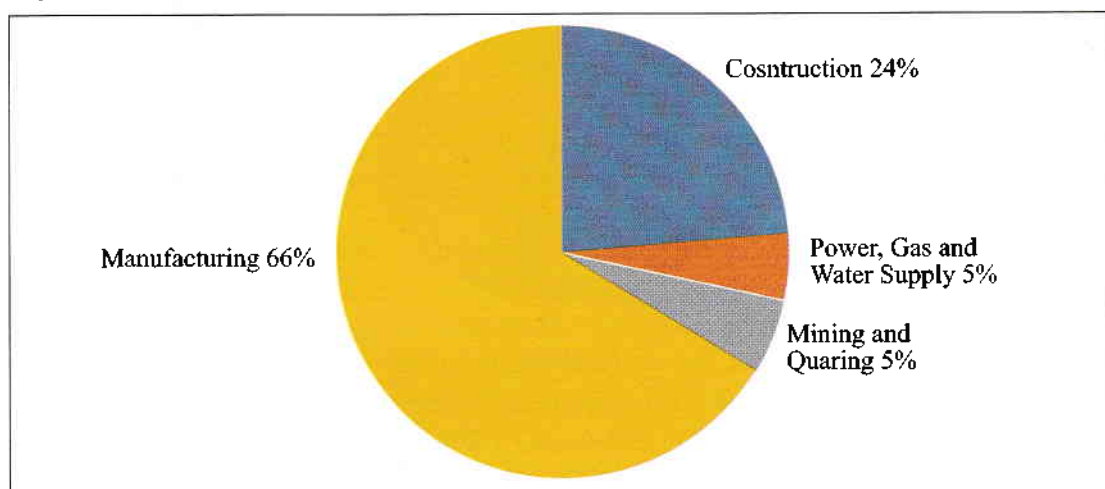
Figure-02 : Composition of GDP in agriculture Sector (FY 2015)



Source: Bangladesh Bureau of Statistics, 2015

From the above figure, we can realize that crops and horticulture sector contributed most (55%) in the total GDP of agriculture sector. Animal service as well as forest and related services each contributed 11% and fishing contributed 23% in total agriculture sector GDP.

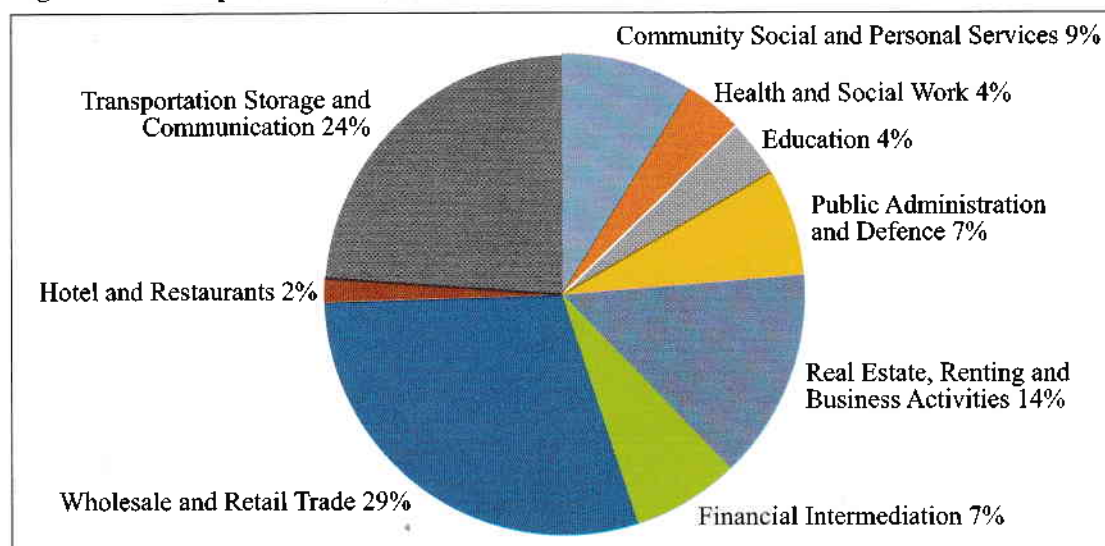
Figure-03: Composition of GDP in Industry Sector (FY 2015)



Source: Bangladesh Bureau of Statistics, 2015

From the above figure, it seems that GDP of industry sector was mainly dominated by manufacturing (66%). Power, gas and water supply as well as mining and quarrying sector each contributed 10% and construction contributed 24% in total industry sector GDP.

Figure-04 : Composition of GDP in Service Sector (FY 2015)

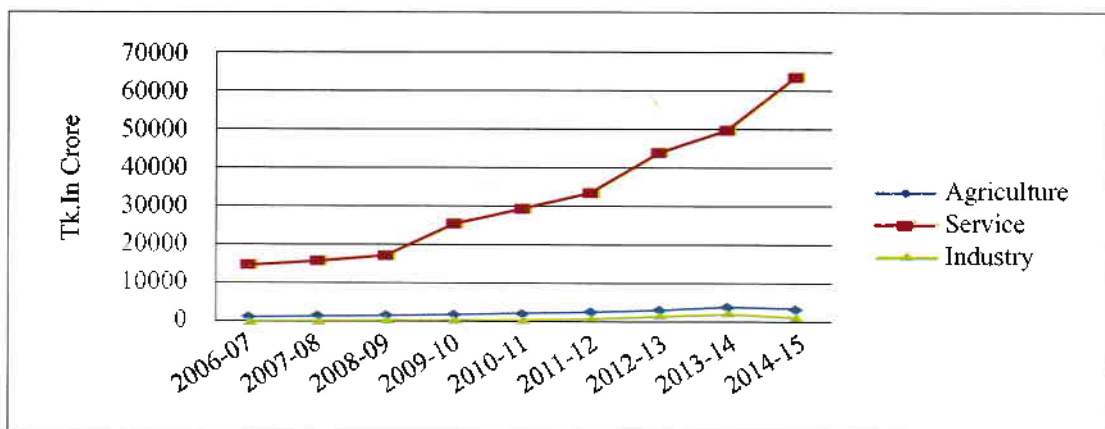


Source: Bangladesh Bureau of Statistics, 2015

Above figure depicts that wholesale and retail trade contributed most (29%) in the total GDP of service sector. Transport, storage and communication also dominated service sector's GDP with contribution of 24%. Real estate, renting and business activities moderately contributed with 14%. Health and social as well as education sector each contributed only 4% in total GDP of service sector. Hotel and restaurant sector has lowest contribution (2%) in the total GDP of service sector.

Graphical presentation of ADP (agricultural sector, industry sector and service sector) corresponding to several years are given below.

Figure-05 : Annual Development Program (ADP) against several years



Source: Bangladesh Economic Review 2014-15

From the above figure, we have found that the ADP of service sector are gradually increased in rapidly from the year 2006-07 to 2014-15 and ADP of industry and service sectors also gradually increased year to year but in the FY 2014-15 ADP of industry sector has decreased.

8.0 Statistical Results and Findings: From the factor analysis and econometric analysis, findings of the study are categorically discussed in the following subsections:

8.1 Factor Analysis on Impediments of ADP Impediment in Bangladesh

In this study, descriptive statistics indicated a number of tools which are used through impediments of ADP in Bangladesh from which we have adopted factor analysis to identify the major dimensions by reducing the number of impediments of ADP implementation. The analysis used principal component method to extract the factors with varimax rotation technique. Table 01 of appendix shows the results of the factor analysis of the impediments of ADP implementation in Bangladesh. A particular variable has been selected to include as a factor on the basis of high correlation value (factor loadings). The study determined six main factors from 19 elements generated from questions to the interviewees as the impediments of ADP implementation in Bangladesh. These factors are:

Factor-I: Failing to prepare proper specification of equipment/machineries, Lack of proper work planning for Implementation of the project, Preparation of faulty project document, Negligence of the contractor and engineer, Lack of properly allocation of fund in respective project, Lack of knowledge in procurement rules and procedures, Lack of skill man power for operating the project, Failing to prepare proper procurement plan, Lack of proper work design for running the project.

Factor-II: Delay in Recruitment of project Personnel, Time consuming complexities for Fund collection, Frequent change of project director and project personnel, Delay in project approval.

Factor-III: Inadequate power (electricity, oil, gas etc.) generation and supply, Political unrest, Corruption in public and private sector.

Factor-IV: Lack of acquisition of fixed asset timely.

Factor-V: Lack of Monitoring by the concern authority.

Factor-VI: Lack of consultation and co-ordination among the various departments.

The respective magnitudes of factor loadings depict the significance of a particular element in a factor and these elements are arranged in order of their magnitudes respectively. The impediments consisting Factor-I are mainly related to *lack of administrative and managerial skills to manage equipment and human resources to implement projects*; the impediments of Factor-II are related to lack of governance; corruption, bribery and red tapism the Factor-III consists of *impediments related to infrastructure problem and lack of cooperation among political parties*. Factor-IV consists of impediments related to *lack of logistic support*. Factor-V consists of impediments related to *lack of monitoring project implementation*. Factor-VI consists of impediments related to *lack of co-ordination and team work among concerned parties of project implementation*. The result suggests that these factors are main impediments of ADP implementation in Bangladesh.

8.2 Impact of ADP allotment on ADP expenditure: From the econometric analysis of the data of last forty fiscal years (1976-2015) regarding ADP allotment on ADP expenditure of that sector, following statistical outcome has been found:

Table-02 : Statistical Output

	ADP allotment					
	Correlation (R)	R Square	Constant (α)	Beta (β)	p Value	Null Hypothesis
ADP expenditure						

8.2.1 Coefficient of Correlation: From table-02, it has been found that there is a high degree of positive correlation ($R=0.893$) between ADP allotment and ADP expenditure.

8.2.2 Regression analysis: The simple linear regression is developed by taking ADP allotment (ADPA) as the independent variable and ADP expenditure (ADPE) as the dependent variable.

The standardized regression model is : $ADPE = \alpha_1 + \beta_1 ADPA + \epsilon_i$ (residual) [14].

The fitted regression model is : $\hat{ADPE} = 2920.426 + 0.893 \hat{ADPA}$(i)

Here, $\beta_1 = 0.893$ implies that if ADP allotment is increased by Tk.1 then ADP expenditure of that sector will be increased by Tk. 0.893. Finally, if ADP allotment is zero then ADP expenditure of that sector will be Tk. 2920.426.

8.2.3 Coefficient of Determination: The value of $R^2 = 0.798$ or 79.8% or 80% which implies that 80% of the total variation of ADP allotment can be explained by the variation of ADP expenditure and the remaining 20% variation can be explained by the variables which are not included in the regression model.

8.2.4 Test of Hypothesis: In this study, we have developed the following hypothesis:

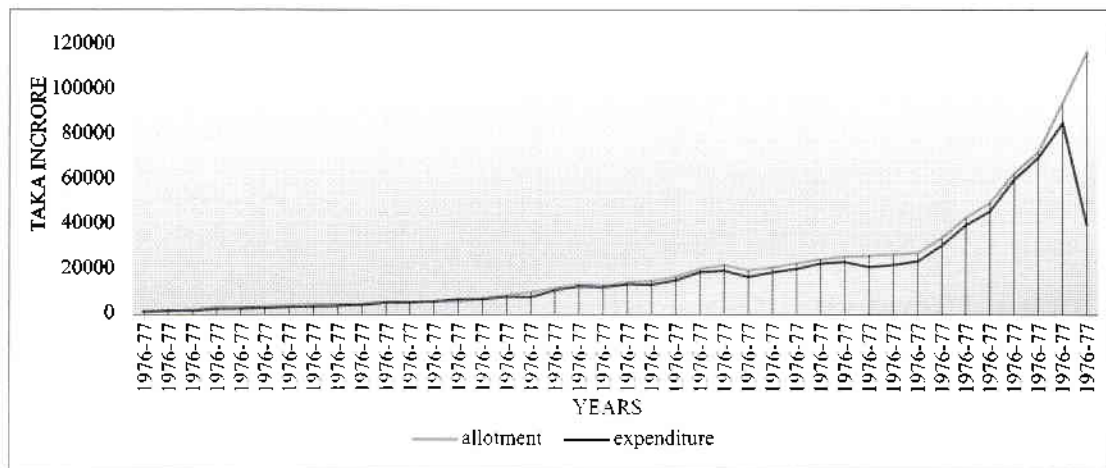
H_0 : There is no significant relationship between ADP allotment and ADP expenditure.

H_1 : There is significant relationship between ADP allotment and ADP expenditure.

Comment: Here, the p value of 0.000 which is less than 0.05. So, the null hypothesis is rejected which means that there is a significant relationship between ADP allotment and ADP expenditure.

8.2.5: Trend Analysis:

Figure-06 : Trend of ADP allotment and ADP expenditure



Source: Bangladesh Economic Review 2015-16

Data of FY 2015-16 is till February 2016.

From the Figure 06, it been shown that both ADP allotment and ADP expenditure are gradually increasing. Both ADP allotment and ADP implementation has changed dramatically from FY 1976-77 to FY2015-16. Although the allotment and expenditure was almost same at the beginning of last forty fiscal years but gradually a gap is being created between these two with the passage of years. ADP implementation seems to be minimized in FY 2007-08 as a result of natural calamity (Cyclone and Cider) and usage of foreign aid to overcome that scenario.

8.3. Impact of (ADP) on GDP in Agricultural Sector: From the econometric analysis of the data of last nine fiscal years (2007-2015) regarding ADP to agriculture sector and GDP (current market price) of that sector, following statistical outcome has been found:

Table-03 : Statistical Output

ADP	GDP (Agriculture)					
	Correlation (R)	R Square	Constant (α)	Beta (β)	p Value	Null Hypothesis
Agriculture	.994	.987	254663.383	.994	0.00	Rejected

8.3.1 Coefficient of Correlation: From the Table-3, it has been found that there is a high degree of positive correlation ($R=0.994$) between ADP to agriculture sector and GDP of that sector.

8.3.2 Regression analysis: The simple linear regression is developed by taking ADP to Agricultural Sector (ADPAS) as the independent variable and GDP of Agricultural Sector (GDPAS) as the dependent variable.

The fitted regression model is : $\hat{GDP\ AS} = 254663.383 + 0.994 \hat{ADPAS}$(ii)

Here, $\beta_0 = 0.994$ implies that if ADP to agricultural sector is increased by Tk.1 then GDP of that sector will be increased by Tk. 0.994. Finally, if ADP to agricultural sector is zero then GDP of that sector will be Tk. 254663.383.

8.3.3 Coefficient of Determination: Again, the value of $R^2 = 0.987$ or 98.7% or 99% this implies that 99% of the total variation of GDP of agricultural sector can be explained by the variation of annual development program to agricultural sector and the remaining 1% variation can be explained by the variables which are not included in the regression model.

8.3.4 Test of Hypothesis: In this study, we have developed the following hypothesis:

H_0 : There is no significant relationship between Annual Development Program (ADP) and agricultural sector of the economy and the GDP of that sector.

H_1 : H_0 : There is significant relationship between annual development program (ADP) to agricultural sector of the economy and the GDP of that sector.

In our study, we have used analysis of variance (ANOVA) to test the above hypothesis due to the nature of variables and available information. The statistical method of F-test has been used at 5% level of significance to identify whether there are significant relationship between annual development program (ADP) to agricultural sector of the economy and the GDP of that sector. In this regard, we can accept null hypothesis if the calculated F (Significance) value is greater than 0.05 and we can reject the null hypothesis if the calculated F (Significance) value is less than 0.05.

Comment

Here, the p value is 0.000 which is less than 0.05. Hence, the null hypothesis is rejected

which means that there is a significant relationship between annual development program (ADP) and agricultural sector of the economy.

8.4 Impact of ADP on GDP in Industrial Sector: From the econometric analysis of the data of last ten fiscal years (2007-2015) regarding ADP to industrial sector and GDP (current market price) of that sector, following statistical outcome has been found:

Table-04 : Statistical Output

	GDP (Industry)					
ADP	Correlation (R)	R Square	Constant (α)	Beta (β)	p Value	Null Hypothesis
Industry	.846	.715	637291.856	.846	0.004	Rejected

8.4.1 Coefficient of Correlation: From table-04, it has been found that there is a high degree of positive correlation ($R=0.846$) between ADP to industrial sector and GDP of that sector.

8.4.2 Regression analysis: The simple linear regression is developed by taking ADP to Industrial Sector (ADPIS) as the independent variable and GDP of Industry Sector (GDPIS) as the dependent variable. $GDPIS = 637291.856 + 0.846 ADPIS \dots\dots\dots (iii)$

The fitted regression model is :

Here, $\beta_1 = 0.846$ implies that if ADP to industrial sector is increased by Tk.1 then GDP of that sector will be increased by Tk. 0.846. Finally, if ADP to industrial sector is zero then GDP of that sector will be Tk. 637291.856.

8.4.3 Coefficient of Determination: The value of $R^2 = 0.715$ or 71.5% or 72% which implies that 72% of the total variation of GDP of industrial sector can be explained by the variation of ADP to that sector and the remaining 28% variation can be explained by the variables which are not included in the regression model.

8.4.4 Test of Hypothesis: In this study, we have developed the following hypothesis:

H_0 : There is no significant relationship between annual development program (ADP) to industrial sector of the economy and the GDP of that sector.

H_1 : H_0 : There is a significant relationship between annual development program (ADP) to industrial sector of the economy and the GDP of that sector.

Comment

Here, the value of F (Significance) is 0.004 which is less than 0.05. So, the null hypothesis is rejected which means that there is a significant relationship between annual development program (ADP) to industrial sector of the economy and the GDP of that sector.

8.5 Impact of ADP on GDP in Service Sector: From the econometric analysis of the data of last ten fiscal years (2007-2015) regarding ADP to service sector and GDP (current market price) of that sector, following statistical outcome has been found:

Table-05 : Statistical Output

ADP	GDP (Service)					
	Correlation (R)	R Square	Constant (α)	Beta (β)	p Value	Null Hypothesis
Service	.990	.981	329725.854	.990	0.00	Rejected

8.5.1 Coefficient of Correlation: From table-05, it has been found that there is a high degree of positive correlation ($R=0.996$) between ADP to service sector and GDP of that sector.

8.5.2 Regression analysis: The simple linear regression is developed by taking ADP to service sector (ADPSS) as the independent variable and GDP of service sector (GDPSS) as the dependent variable.

The fitted regression model is : $\hat{GDP\ SS} = 329725.854 + 0990\ ADPSS$(iv)

Here, $\beta_2 = 0.990$ implies that if loan disbursement to service sector is increased by Tk.1 then GDP of that sector will be increased by Tk. 0.990. Finally, if loan disbursement to service sector is zero then GDP of that sector will be Tk. 329725.854.

8.5.3 Coefficient of Determination: The value of $R^2 = 0.981$ or 98.1% or 98% which implies that 98% of the total variation of GDP of service sector can be explained by the variation of ADP to that sector and the remaining 2% variation can be explained by the variables which are not included in the regression model.

8.5.4 Test of Hypothesis: In this study, we have developed the following hypothesis:

H_0 : There is no significant relationship between annual development program (ADP) to service sector of the economy and the GDP of that sector.

$H_1 : H_0$: There is a significant relationship between annual development program (ADP) to service sector of the economy and the GDP of that sector.

Comment

Here, the value of F (Significance) is 0.000 which is less than 0.05. So, the null hypothesis is rejected which means that there is a significant relationship between annual development program (ADP) to service sector of the economy and the GDP of that sector.

9.0 Conclusions and Recommendations:

It is needless to say that GDP of the country would be dependent intricately with the volume of public investment and ADP expenditure to the major sectors that constitute the GDP. The study made the following recommendations on the basis of the findings from factor analysis regarding impediments of ADP implementation:

- Some initiatives such as employing skilled manpower, ensuring availability of equipment of project, policy reform, transparency, accountability, emphasizing on national interest rather than individual interest by the political parties, co-ordination and cooperation among

concerned parties associated with project implementation should be set urgently in action to overcome the impediments of ADP implementation in Bangladesh.

From the correlation and regression analysis following recommendation can be drawn:

- Sector wise ADP expenditure has significantly impact on GDP in Bangladesh. Hence, government has to ensure proper allocation and usage of fund through adequate public investment in all the components of GDP namely agriculture, industry and service to accelerate GDP growth rate above 7% which is moving around 6% throughout the last decade. Decentralization of fund emphasizing on implementation of district budget for economic development in both the rural and urban areas can ensure more contribution of rural areas in GDP through enhancing agricultural production as this sector explains GDP by around 99% and creates huge employment opportunity in rural area.

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Appendix

Table-01 : Factor analysis of impediments of ADP implementation in Bangladesh

Impediments of ADP implementation	Factors					
	1	2	3	4	5	6
Delay in Project Approval		.640				
Delay in Recruitment of Project Personnel		.732				
Because of corruption in public and private sector			.410			
Time consuming complexities for Fund collection		.709				
Lack of properly allocation of fund in respective project	.568					
Lack of proper work planning for Implementation of the project	.704					
Lack of skill man power for operating the project	.538					
Preparation of faulty project document	.636					
Failing to prepare proper specification of equipment/ machineries	.732					
Failing to prepare proper procurement plan	.493					
Lack of knowledge in procurement rules and procedures	.562					
Lack of Monitoring by the concern authority					.495	
Frequent change of Project Director and project personnel		.657				
Lack of proper work design for running the project	.392					
Negligence of the contractor and engineer	.574					
Lack of acquisition of fixed asset in timely				.371		
Because of political unrest			.531			
Because of inadequate power (electricity, oil, gas etc.) generation and supply			.546			
Lack of consultation and co-ordination among the various departments						.561
Eigen value	3.47	2.78	1.84	.49	1.37	1.21
Percent of variation	18.25	14.65	9.66	7.83	7.22	6.36
Cumulative percent of variation	18.25	32.90	42.56	50.39	57.61	63.97
KMO=0.611 & only factor loadings >0.37 has been shown in the Table						

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Source: August, 2016

***Note:** Structured questionnaire has been developed with 19 questions designed from relevant literature review and discussion with experts in the area of public investment to identify probable impediments of ADP implementation in Bangladesh. From the responses of the questionnaires provided to 100 government employees associated with different ministries that deal with public investment, above mentioned variables have been developed to conduct factor analysis with a view to minimizing the number of variables into few dimensions according to their significance.*

Transformation of Dwelling Unit Envelopes in Sylhet in Course of Time

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Abstract

A dwelling unit is the basic architecture of a civilization and it inherits its dwellers as well as the society's tradition, culture and aesthetic sense. Subsequently, 'Building Envelope' is one of the most significant features of an architecture, because other than just an exterior decorative surface its reaction with environment determines the nature-built form relationship. Dwelling unit transforms with the change in taste of its inhabitants, influenced by a change in culture, tradition, aesthetics, geography, economy, and climate in course of time. Its envelopes portray a society's ideologies and custom of a specific period of time. Sylhet region is the land of Bengali and several other ethnic communities and the transformation in their dwelling unit envelopes took place for several reasons. This study depicts a comparative analysis from traditional to the contemporary dwelling units of this region through literature review and visual survey to highlight the transformation of dwelling unit envelopes with time.

Keywords : *Building Envelopes, Dwelling unit, Transformation, Tradition, Earthquake.*

1.0 Introduction

Building Science specialists use the term 'Building Encloser' or 'Building Envelope,' to denote the outer shell of a built form because both these terms have same meaning. According to U.S Law, the term 'Building Envelope' means "the elements of a building that enclose conditioned spaces through which thermal energy may be transferred to or from the exterior or to or from unconditioned spaces." (US Legal)⁵ So, a 'Building Envelope' is the physical barrier comprising of all components, i.e. Floor, Roof, Wall, Door and Window which resists air, water, heat, light and noise transfer.

A dwelling unit is the core architecture of a community. It represents the society and its envelope with different appearances create the insignia of its particular time. 'Change' is the only constant phenomenon in architecture. Anything that is created either decay or transforms. A dwelling unit's envelope transforms with the transformation in dwelling unit itself, and also with the society's cultural, traditional, aesthetical, geographical, climatic, and economic changes. Sylhet is a unique example of transformation caused by several major natural disasters and the influence of being ruled by different rulers at different times in its long history.

Bengal was ruled by numerous Hindu and Muslim rulers for more than a thousand years from the Pala Dynasty in the eighth century to the Nawabs followed by the British in mid eighteenth century. Beside that Sylhet was ruled under the Jaintia Kingdom (1500-1835), which stretched out from eastern Shillong hills to the Barak river valley in Karimganj district of Assam, India. By their gradual domination over Sylhet, British East India Company annexed the Jaintia Kingdom in 1835. (Gait, 1906)⁸ During the partition of Bengal in 1905, Sylhet was incorporated into Assam. (Allen, 1905)⁴ In 1947 Sylhet became a district of new East Pakistan through a referendum and after the liberation war in 1971 a district and later a division of Bangladesh. (History of Sylhet)¹¹

The objective of this study is to classify dwelling unit envelopes transformation in course of time and ascertain the factors that generated the transformation. The study will also try to find out the present-day considerations and preferences for dwelling unit envelopes in different communities.

2.0 Methodology

Several ethnic groups i.e. Khasi, Manipuri, Garo, Hajong etc. live in Sylhet region. Among them Khasi and Manipuri communities are prominent. Besides Bengali inhabitants, these communities with their strong architectural language represent the vernacular dwelling units of Sylhet region. Also because of the similarities in culture, geographical proximity, and climatic conditions, we see the resemblances in the architecture of northern part of Bengal and Assam.

A literature review on different styles, their construction materials and components of building envelopes along with a visual survey are the key elements to this study.

3.0 Organogram of transformation in dwelling units

This study focuses on the transformation in dwelling unit envelopes of Sylhet region in course of time. That represents; **Pre-colonial Dwelling units:** The traditional dwelling units of the northern part of Bengal and Assam region before British colonization, **Dwelling units in colonial period:** Modified style of the traditional dwelling units during British colonization and **Post-colonial Dwelling units:** The dwelling units of late-20th century in Sylhet region (Figure 1).

3.1 Pre-colonial Dwelling units

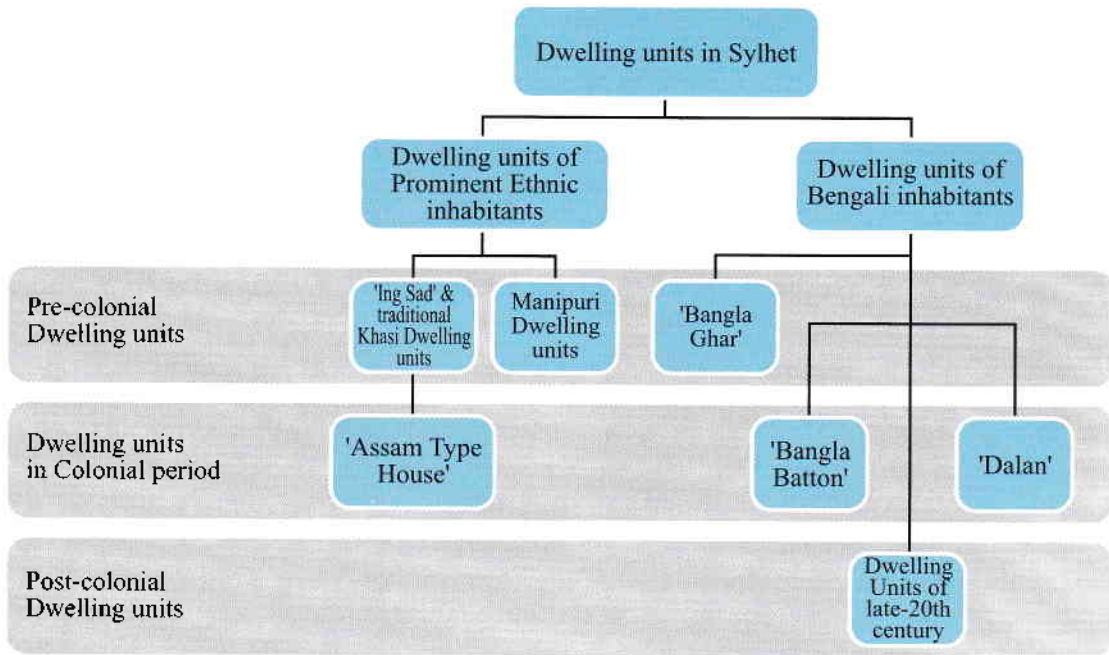


Figure-1 : Transformation of dwelling units in course of time.

The *Khasi dwelling unit*; is a symbol of art in architecture and engineering. The semi-oval shaped 'Ing Sad' and the traditional 'Khasi House' are two different types of primitive Khasi dwelling units. The left one represents the royals, while the right one represents common people (Figure 2).

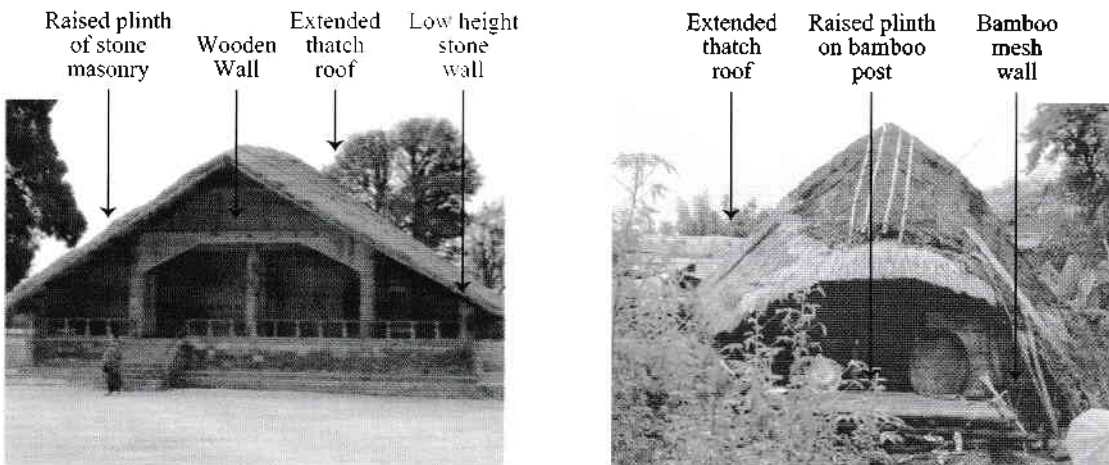


Figure-2: 'Ing Sad' (left) and Traditional Khasi dwelling unit (right) [Source: Dahunsi & Mittal, 2008]

Khasis are known for their ceremonies and social convictions. They follow a few unambiguous site selection techniques. For example, they construct their dwelling units on the hills but the last hill of the range is forbidden. Dwelling units must be east-facing and platforms, depending on location, are up to 2-3 ft. above ground. Envelopes of these dwelling units are eco-friendly. Walls are made of locally available materials like mud, stone masonry with lime mortars or wooden planks. The large imposing thatched roofs of these dwelling units are kept at a distance from each other, which provides space between adjacent units. The roof stands on outer low height walls beside posts. These dwelling units are scattered in Khasi and Jaintia hills; an earthquake prone zone. So, both the 'Ing Sad' and 'Khasi House' have earthquake-safety measures provided by wooden 'Beam-Column' construction technique. This technique keeps the external and internal walls free from structural load and, thus reduces seismic vulnerability. (Dahunsi and Mittal, 2008)⁶

Manipuri dwelling units; or 'Yunjao' is the symbol of Manipuri's own antiquated architectural style. Envelopes of these dwelling units are eco-friendly and affordable. They use two different types of walls. Either full height straw-reinforced thick mud walls or walls of bamboo weaving with mud plaster on both sides with husk over low height (up to sill level)



Figure-3 : Traditional Manipuri dwelling unit.
(Source: <http://www.e-pao.net/manipur>)

mud walls. The low plinth of mud foundation, thick walls, and bamboo or wooden post supports hipped thatch roof. The joints are fastened with bamboo splits. The envelopes are made of lightweight materials and construction technique makes them earthquake resistant. (Gajananda, et al.)¹³

Despite the fact that Manipuri's well knew brick construction from the past, they preferred primitive architectural style to maintain cost efficiency and control over environment. Like other traditional dwelling units with thatch roof, these also have fire risk. The hatching material rots with rain so maintenance is needed almost every year.

'Bangla Ghar'; the traditional dwelling unit of Bengali inhabitants. The pre-colonial significant architecture of Bengal i.e. temples, tombs, and administrative buildings were influenced by Hindu, Buddhist, and Islamic architecture. But the factor did not that much influenced the Bengali dwelling units.

'Bangla Ghar' with its homegrown construction techniques and functional arrangement represent rural Bengal where houses are small, one-storied, located around a courtyard, veranda in the front and inner spaces are separated according to household necessity. Generally, these dwelling units consist of bamboo or wooden posts, mud and bamboo walls

and pitched roof of 'Khar', Golpata or Hay depending on availability and cost. The prominent envelope of this house pattern is 'Pitched roof' as its downward and extended roof shields the dwelling unit from rain and the lightweight materials decrease seismic vulnerability. The disadvantages of its roof are, fire risk, rapid decay, and frequent maintenance due to excessive rain. (Muktadir and Hassan, 1985)¹⁶

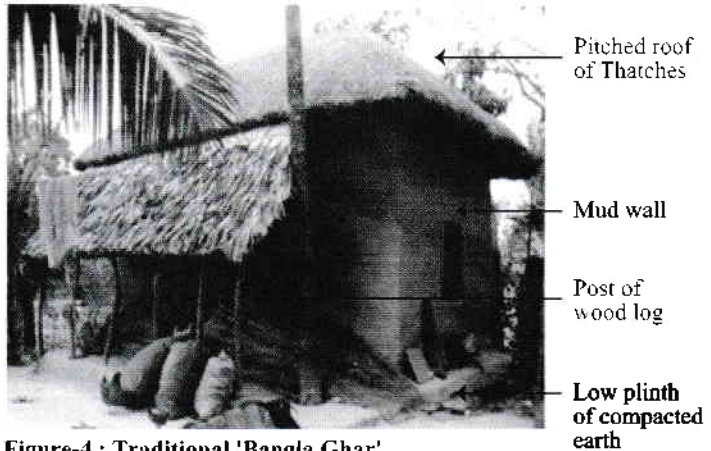


Figure-4 : Traditional 'Bangla Ghar'.
(Source: [http://en.banglapedia.org/Architecture, _Rural](http://en.banglapedia.org/Architecture/_Rural))

3.2 Dwelling units in colonial period

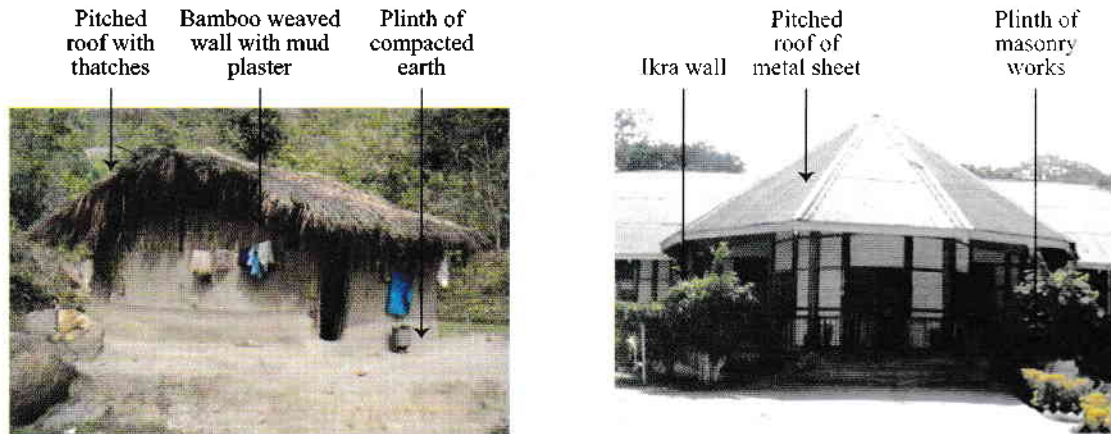


Figure-5 : Assam Type House: (left) 'A Bamboo House' in rural area, (right) 'Ikra House' in urban area.
[Source: Nag & Amol, 2013&Kaishik & Babu, 2009]

British colonization played an influential role in the transformation of traditional dwelling units of Bengal and Assam. The British emphasized the climatic and geological condition in the architecture. The Northern part of Bengal and Assam region are hilly area and under the threat of earthquakes with heavy rainfall. So, The British transformed the traditional vernacular built forms, rather than inventing a new style and made it sustainable. During the colonial period, both the Bengali and the ethnic communities of these regions adapted the transformed construction technique and materials for their dwelling units. As a result, traditional Khasi dwelling units transformed into 'Assam Type House' and 'Bangla Ghar' transformed into 'Bangla Batton.' Although traditional Manipuri dwelling units remained more or less the same.

'Assam Type House'; is the dwelling unit originated in colonial Assam. Complicated construction technique of these dwelling units and the great 'Assam Earthquake' were the



Figure-6 : Bungalow-'Bangla Batton' dwelling unit with British influence, late-19th Century, Double chora, Duncan Tea Estate, Srimangal. (Source: Field survey)



Figure-7 : 'Bangla Batton' dwelling unit with Local influence, 1913, Hawa Para, Sylhet. (Source: Field survey)

decisive factor for the transformation in traditional Khasi dwelling units. This style of dwelling units, by and large, are found in both flat and hilly terrains. Depending upon landscape and requirements the dwelling units are rectangular, L and C-shaped. The base is constructed either on mud or masonry foundation if not raised over wooden or bamboo posts, depending on its location. Plinths are at least 2' high with mud plaster flooring or wooden planks. Envelopes of this style are consists of 'Ikra' (reed) with mud plaster inside wooden frame walls and extended pitched roof made of hays, clay tile or corrugated iron sheet with wooden or bamboo trusses. All components attached with nails, bolts or coir ropes. Materials of 'Assam Type House' varies in rural and urban area depending upon their availability. These dwelling units are cost effective and suitable for earthquake prone zones because of its construction technique. The extended and steep pitch roof with metal sheets is very effective to protect the exterior walls against heavy rainfall. The porous materials on walls keep the house cool in summer and lightweight structural materials reduce seismic risks. These dwelling units are eco-friendly but its major disadvantage is the risk of fire. (Nag and Amol, 2013)²³

The British transformed the age-old 'Bangla-Ghar' and named 'Bungalow.' The style includes all types of low-rise dwelling units. (King)² In Bengal, this style practiced in many ways. Among those 'Bangla Batton' is the one, introduced in Sylhet region (Figure 6 and 7). Due to climatic and geological similarities of Sylhet and Assam region, this style adopted the building technique of 'Assam Type House.' Spatial arrangements divided the house into two zones; public and private. It had front yard, a wide veranda, and in most cases with an inner courtyard, like 'Bangla Ghar'.

Its Envelope consists of masonry plinth work with wooden flooring, Steel or timber post-beam structures, Ikra wall on top of the low height brick wall of lime mortar and lime plaster with necessary ventilation on side walls, and loftier metal sheet roof with bamboo weaved or wooden false ceiling. The porous material on the walls and false ceiling underneath the roof keep the internal temperature reasonable in summer. Its extended roof shields windows from driving rain. (Sobhan, et al, 2013)²²

'Dalan;' is another type of dwelling unit, which the Bengali inhabitants constructed in Sylhet region during the colonial period (Figure 8). Bengali inhabitants used the word 'Dalan' to address 'Building' made with masonry and concrete. Mainly the prominent people built this type in Bengal.



Figure-8 : 'Dalan'-Jitu Mia's House, Sylhet. (Source : Field Survey)

These dwelling units are made of high masonry plinth, Brick wall with Lime-Shurki mortar and lime plaster, glass door and window with wooden frames, and mini vaulted or flat roof. Functions are divided into the public and private zones, arranged with a wide veranda and courtyard in the front as well as a backyard for household works.

3.3 Post-colonial Dwelling units

In late 20th-century with the worldwide technological revolution, mass production of building materials started. As 'material' is one of the significant features of building envelope, its improvement guided the transformation in dwelling unit envelopes. In Sylhet region, the scenario is more or less same. Alongside technological development, an impressive number of locals' migration in various nations particularly in England, played a vital role in the transformation of post-colonial dwelling unit envelopes.

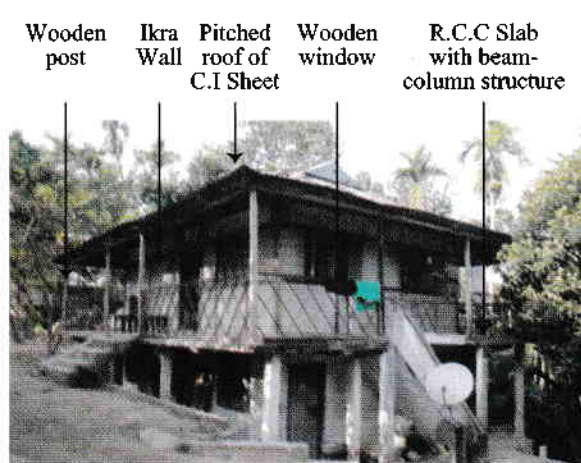


Figure-09 : Post-colonial Khasi dwellings, Double chora, Srimangal. (Source: Field survey)

have Christianized through the colonial period, still they retain on a few of their myths and beliefs. (Saunderson, 2006)¹⁴ With the amalgamation of different ideologies and

inaccessibility to traditional building materials, their architecture has suffered irregular transformation.

From the mid-20th-century, Brick and R.C.C became easily available and was widely used as building materials in Sylhet region. Inhabitants started using both traditional and contemporary construction technique and materials. In a few dwelling unit envelopes, unification of both types is visible (Figure 9). As light-weight and inflexible R.C.C and masonry structures are not very suitable in earthquake-prone zones, their dwelling units may suffer during any future earthquake.

Manipuri communities live mostly in Sylhet and Moulvibazar districts in this region. They are in a process of cultural assimilation for approximately 20 years because of their adaptation to mainstream culture. This is seen mainly among young generation. As a result, the transformation is visible in their day today life and also in their dwelling units. Because of their strong belief in tradition and culture, their dwelling units remain same in the colonial

period but from the late 20th-century their dwelling units and their envelopes are transforming with their changing cultural practice and economic solvency.

Currently, a few Manipuri dwelling unit envelopes consist of contemporary building materials, i.e. Brick, R.C.C, Wood, Glass and C.I sheet beside their traditional construction materials depending on social and



Figure-10 : Manipuri dwelling unit, Moulvibazar. (Field survey)

economic conditions (Figure 10). The prominent transformation in their traditional envelope is the use of 'corrugated metal sheet' in the place of 'Thatches'. Unlike Khasi community, their co-existence with Bengali inhabitants is forcing their transformation in culture as well as dwelling unit envelopes.

Bengali inhabitants of Sylhet region have changed their dwelling unit and its envelopes as a result of technological progress and the influence of European architectural style after the end of colonial rule in 1947. Present day dwelling units are compact in size and shape, functions are integrated and incorporated in a single form. People prefer multi-storied construction. Although few people of this region uphold the serenity of vernacular pattern and materials, most of the others build their dwelling units with all kind of modern-day building and finish materials along with the available electrical and mechanical devices.

Contemporary dwelling units mostly have R.C.C foundation and column-beam structural system. Their dwelling unit envelopes consist Brick wall with cement plaster and paints, cement concrete with mosaic or tile finish flooring, wooden door, glass window with the wooden or aluminum frame, metal sheet or ceramic tile on occasional pitch roof. The

geometry of the envelopes also transformed with versatile construction techniques. Normally roof is flat with water proofing layers and concealed drainage system. The prominent drawback in a few present day dwelling unit envelopes is insufficient shading device for sun and rain protection.



Figure-11 : Contemporary dwelling unit, Sylhet. (Source: Field survey)

This R.C.C structure has many advantages but it is vulnerable in seismic areas like Sylhet region. Low-rise inflexible structures will collapse easily in case of great earthquake and the damage will be beyond our imagination. On the other hand fragmented building materials and dust will delay the rescue operation.

4.0 Factors of transformation in dwelling unit envelopes

We have seen that among the causes of transformation, climatic change and natural disasters vastly influenced the transformation in dwelling unit envelopes of Sylhet region. This region is classified under tropical monsoon climate. Sylhet region is in a heavy rainfall zone due to higher precipitation rate. (2012 Statistical Yearbook of Bangladesh, 2013)¹ This factor influenced local inhabitants and the British to apply water resistant and durable materialism their dwelling unit envelopes. That's why 'corrugated metal sheet' was introduced in dwelling units of all communities in the colonial period to get protection from heavy rainfall.

The 'Great Assam Earthquake' in 1897 forced the British and the local inhabitants to rethink their construction materials and dwelling unit's sustainability. (Time-Predictable Fault Modeling for Seismic Hazard and Vulnerability Assessment of Dhaka, Chittagong and Sylhet City Corporation Area)²⁴ So, the British amalgamated Bengali and Khasi community's construction techniques and materials and transformed their dwelling unit envelopes in this region. On the other hand, cultural assimilation between Bengali and ethnic communities and technological progress played a vital role in the transformation of dwelling unit envelopes after the end of colonial period.

5.0 Findings

The basic characteristics of dwelling unit envelopes have transformed in Sylhet region with time. Although there are a few resemblance in pre-colonial and colonial dwelling unit

envelopes but significant differences are visible in post-colonial dwelling unit envelopes. In ethnic communities dwelling unit, envelopes transformed with new materials accessibility but Bengali dwelling unit envelopes have transformed not only with the invention of new construction materials but also in size, shape and design. The transformation in dwelling unit envelopes of different communities with time are shown in table 1.

Table-1 : Transformation of dwelling unit envelopes:

Dwelling units of different communities	Dwelling Unit's Envelope	Timeline		
		Pre-colonial Dwelling units	Dwelling units of Colonial period	Post-colonial Dwelling units
Khasi dwelling units	Foundation and Plinth	Platforms are up to 2 ft. high on bamboo or timber posts.	<ul style="list-style-type: none"> • Platforms are up to 2 ft. on bamboo or timber posts. • Masonry wall foundation with plinth of compacted earth. 	Remained as Colonial period.
	Walls and Partitions	<ul style="list-style-type: none"> • Stone and wooden walls, • Weaved Bamboo with mud plaster on both sides. • Wooden door, bamboo mesh window. 	<ul style="list-style-type: none"> • Ikra Walls. • Wooden door & window. 	<ul style="list-style-type: none"> • 'Tkra' wall. • Brick wall with plaster and paint. • Wooden door & window.
Manipuri dwelling units	Roof	<ul style="list-style-type: none"> • Gable (dochala). • Thatched with bamboo or timber truss. 	<ul style="list-style-type: none"> • Gable (dochala). • Thatched or Corrugated metal sheet with bamboo or timber truss. 	<ul style="list-style-type: none"> • Gable (dochala) or Hip (chauchala). • Corrugated metal sheet with Load bearing wooden truss.
	Foundation and Plinth	<ul style="list-style-type: none"> • Compacted earth foundation. • Low plinth. 	Remained as Pre-colonial period.	<ul style="list-style-type: none"> • Compacted earth or masonry foundation. • Low plinth.
	Walls and Partitions	<ul style="list-style-type: none"> • Straw reinforced thick mud wall (up to window sill or lintel level.) • Bamboo weaved mud wall above sill level. • Wooden door and window. 	Remained as Pre-colonial period.	<ul style="list-style-type: none"> • Straw reinforced thick mud wall (up to window sill or lintel.) • Bamboo weaved mud wall above sill level. • Brick wall with or without plaster and paint. • Wooden door and window.

	Roof	Hip (chauchala), Thatched with bamboo truss.	Hip (chauchala), Thatched or corrugated metal sheet with bamboo truss.	<ul style="list-style-type: none"> • Hip (chauchala), corrugated metal sheet with Load bearing bamboo or wooden truss. • Flat slab with R.C.C beam-column structure.
Bengali dwelling units	Foundation and Plinth	<ul style="list-style-type: none"> • Compacted earth foundation. • Low plinth. 	<ul style="list-style-type: none"> • Shallow foundation • Plinth level is up to 2 ft. with masonry works. 	<ul style="list-style-type: none"> • Shallow or Deep foundation. • Plinth level is minimum 2 ft. high with masonry works.
	Walls and Partitions	<ul style="list-style-type: none"> • Mud wall with a mixture of organic materials (rice skin, cow dung). • Wooden door and window. 	<ul style="list-style-type: none"> • Brick wall up to windowsill. • Ikra wall till lintel level • Brick wall with lime plaster. • Load bearing timber frame. • Wooden door and window, glass window in few dwelling units. 	<ul style="list-style-type: none"> • Brick wall with or without plaster and paint. • Wooden door, glass window with aluminum frame.
	Roof	<ul style="list-style-type: none"> • Either Gable or Hip with bamboo truss. 	<ul style="list-style-type: none"> • Generally Gable (dochala), but Hip (chauchala) is also available. • Load bearing timber truss. 	<ul style="list-style-type: none"> • Generally R.C.C Flat slab. • Random pitch roof in small segments • R.C.C structure.

The dwelling units in Sylhet region of the pre-colonial and colonial period were low-rise, eco-friendly and more consideration was given to climate and topography. On the other hand, post-colonial dwelling units focus on permanency, multi-storied construction techniques and materials expression on its envelopes. With technological advancement, post-colonial dwelling unit envelopes could be made more environment responsive but the inhabitant's unwillingness in commissioning experts often affect dwelling units performance.

6.0 Conclusion

The study summarizes with the understanding that so far the Khasi and the Manipuri dwelling unit envelopes have transformed to a little extent whereas Bengali dwelling unit envelopes have transformed immensely with social and economic developments with time. Transformation in a dwelling unit's envelope is inevitable. Construction techniques and materials, used by the inhabitants today, will change tomorrow. Nonetheless, desirable transformation comes only through a community's sensitive approaches to social and climatic issues. Socio-economic changes of the communities, technological advancement like BIM (Building information modeling), improved building materials and environment responsive building envelope design will affect the future transformation of dwelling unit envelopes.

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An Evaluation of Competition and Challenges among Leasing Companies with Banks in Bangladesh

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Abstract

Lease financing has been expanding and getting prominence as a mode of finance with the development of the economy of Bangladesh. This study has attempted to identify the current competitive situation of leasing companies and thus to compare their marketplace with bank sector. A random sample of 18 banks has been selected to investigate their interest and lease revenues for three years. A similar investigation for three years of that period has also been done by taking a random sample of 18 leasing companies. In both cases, secondary data have been used and collected from the annual reports of banks and companies. Herfindahl-Hirschman Index (HHI) has been used to measure market competition of banks and leasing companies. Results show that bank sector and leasing companies are more competitive in Bangladesh. However, leasing companies have been becoming highly competitive over the recent years. Such findings elucidate that the government should develop proper guidelines and instructions for leasing companies to improve the leasing business in Bangladesh and thus the development of the economy of the country.

Introduction

The financial industry in Bangladesh is too much competitive. There are 6 state owned commercial banks, 4 specialized banks, 39 private commercial banks, 9 foreign commercial banks, 5 non-scheduled banks, 37 non-bank financial institutions, and 3 specialized financial institutions (semi formal sector) in Bangladesh (Bangladesh, 2016). Leasing institutions are included in non-bank financial institutions. Among the leasing companies in Bangladesh IDLC of Bangladesh, United Leasing, and Phoenix Leasing Co. Ltd. are the most well known. The leasing institutions are becoming more popular day by day as a mode of finance in Bangladesh. This is because lease financing has some unique features that might be more favorable than other types of financing.

Lease financing can support the expansion of SME (Small and Medium-sized Enterprise) sector, which is considered to be the engine for the growth in Bangladesh. Sometimes it is difficult for the SMEs to collect funds from banking institutions because of its tiny asset size. It is reported that inability to formulate a project proposal to seeking loan from the banking institution is also a problem for the SMEs. Complex bureaucratic procedures are another

problem for SMEs. Lease financing has given the SMEs the opportunities to accumulate funds in easy terms and conditions. Thus, lease financing could play a vital role to solve the financing problem for SMEs.

The leasing companies in Bangladesh are not only providing leasing activities but also are involved in stock market connected activities such as underwriting, issue management, private placement, trust management, portfolio investment, and mutual fund operation. These companies are also providing house building financing, merchant banking, corporate financing, short term financing and lease financing (Ahmed & Chowdhury, 2007). In addition, the companies are performing capital market operations like corporate counseling, bridge financing, capital restructuring, financial engineering, lease syndication, etc. Different sectors of Bangladesh such as transport, construction and engineering, paper and printing, pharmaceuticals, food and beverage, chemicals, leather and leather products, telecommunication, agro based industries have been taking the services of lease financing (Rahman, February 10, 2011).

Financial development in a country starts with the expansion of banking institutions. Lease financing is also expanded and helps in the development process of the country like banking institutions (Nasreen & Jahan, 2007). Both leasing companies and banks can assist in mobilizing the savings into investments. Their participation in the process of channeling the savings into investment makes them competitors as they try to provide the same requirements. Thus, leasing companies in Bangladesh have some difficult issues. These issues are cost of fund, asset-liability mismatch, sources of funds, investment in high risk portfolio, competition with banks, lack of human resources, weak legal system, lack of secondary market, etc (Hong, 2003). Lease companies are prohibited by laws to collect deposits for short term period. Banks can collect deposits for short period. As a result the costs of funds of banks are lower than leasing companies. Because of the access of low cost of funds, banks are in advantageous position than NBFIs (non-bank financial institutions) as well as leasing companies.

Therefore, the objective of this study is to identify the current situation of competition between banks and leasing companies. It also aims to recognize whether leasing companies are facing more competition among themselves or banks are facing more competition among themselves.

Methodology

Data Collection: A random sample of 18 banks was selected to investigate their interest and lease revenues for three years. A similar investigation for three years of that period was also done by taking a random sample of 18 leasing companies. In both cases, secondary data have been used and collected from the annual reports of banks and companies.

Data Analysis: Herfindahl-Hirschman Index (HHI) has been used to measure market competition of banks and leasing companies. HHI is computed by squaring the market share of each firm competing in a market, and then summing the resulting numbers (Rhoades, 1993). It is a statistical measure of concentration and can vary from close to 0 to 10,000. The Department of Justice and the Federal Reserve in USA utilizes the HHI for analyzing the competitive effects of mergers. They consider a market with an index value of less than 1,500

to be a less concentrated or competitive marketplace, an index value of 1,500 to 2,500 to be a moderately competitive marketplace, and an index value of 2,500 or greater to be a highly concentrated or monopoly marketplace.

Limitations

There are a number of limitations of this study. First, the choice of banks and leasing companies generate bias. Second, as the most recent data are not available to the researchers, the most recent facts are not revealed in this study.

Table-1 : Herfindahl- Hirschman Index (HHI) for different Banks in terms of total of interest revenue and lease revenue (in million of taka).

Name of the banks	2011	HHI	2010	HHI	2009	HHI
Dutch Bangla	9,984.00	25.73	7,175.00	21.33	6,163.00	20.42
Dhaka Bank	9,945.00	25.53	7,405.00	22.72	7,466.00	29.97
Eastern Bank Ltd.	9,713.00	24.35	6,977.00	20.17	6,216.00	20.77
Bank Asia	10,919.70	30.77	8,381.30	29.10	6,247.49	20.99
Brac Bank	1,428.30	00.53	11,028.00	50.38	9,506.00	48.58
City Bank	9,415.00	22.88	70,900.00	20.82	5,743.00	17.73
AB Bank	12,831.00	42.49	98,400.00	40.11	9,047.00	44.01
Al-Arafah Islami Bank Ltd.	9,481.00	23.20	4,307.00	07.68	4,005.00	08.62
Pubali Bank	9,003.51	20.92	8,056.64	26.89	7,501.21	30.25
Shahjalal Islami Bank	10,108.00	26.37	6,416.00	17.05	5,531.00	16.45
Southeast Bank	11,325.00	33.10	10,775.00	48.10	8,962.00	43.18
One Bank	6,517.90	10.96	5,056.29	10.59	4,229.35	09.62
Premier Bank	7,417.02	14.20	4,979.10	10.27	4,243.65	09.68
Prime Bank	16,709.00	72.06	12,147.00	61.12	10,856.00	63.36
Mutual Trust Bank	5,919.00	09.04	4,384.00	07.96	42,800.00	09.85
National Bank	14,435.00	53.78	9,616.14	38.31	7,006.63	26.40
NCC Bank	9,669.34	24.13	6,970.01	20.12	6,487.77	22.63
Islami Bank	32,019.53	264.61	24,766.27	254.09	22,888.00	281.66
Total	196,840.30		155,369.75		136,379.10	
HHI		724.65		706.81		724.17

Source of Data : The Annual Reports of Banks

Table-2 : Herfindahl-Hirschman Index (HHI) for different leasing companies in terms of total of interest revenue and lease revenue (in taka)

Name of the Banks	2011	HHI	2010	HHI	2009	HHI
Union Capital	494,564,000	04.7	325,287,000	04.7	304,191,000	05.4
Uttara Finance	5,935,278,380	681.5	1,532,243,630	103.8	1,413,341,000	116.7
Prime Finance	983,444,000	18.7	708,152,000	22.2	434,469,000	11.0
FAS Finance	357,341,000	02.5	347,124,000	05.3	173,920,000	01.8
Premier Leasing	570,883,000	06.3	623,376,000	17.2	697,084,000	28.4
International Leasing	1,099,092,000	23.4	917,796,000	37.2	1,039,611,000	63.2
Bay Leasing	459,502,000	04.1	430,371,000	08.2	485,088,000	13.8
BD Finance	449,521,000	03.9	385,304,000	06.6	274,385,000	04.4
MIDAS Finance	689,799,000	09.2	361,783,000	05.8	295,480,000	05.1
Lanka Bangla	2,358,586,000	107.6	1,601,101,000	113.3	1,347,784,000	106.2
IPDC	499,573,000	04.8	442,971,000	08.7	519,113,000	15.7
IDLC	3,379,171,000	220.9	3,047,391,000	410.6	2,433,852,000	346.2
BIFC	998,426,000	19.3	608,978,000	16.4	516,321,000	15.6
Phoenix	1,085,170,000	22.8	964,418,000	41.1	919,909,000	49.5
Peoples Leasing	1,727,658,000	57.7	1,207,656,000	64.5	783,802,000	35.9
First Lease Finance	319,058,000	02.0	262,597,000	03.0	213,217,000	02.7
GSP Finance	276,566,000	01.5	242,461,000	02.6	308,600,000	05.6
United Leasing	1,052,773,000	21.4	1,030,608,000	47.0	920,265,000	49.5
Total	22,736,405,380		15,039,617,630		13,080,432,000	
HHI		1212.3		918.2		876.7

Source of Data : The Annual Reports of Leasing Companies

Results and Discussion

Table 1 and Table 2 provide the HHIs for banking sector and leasing sector, respectively. Table 1 shows that the indices for banking sector vary between 700 and 750. This indicates that this sector in Bangladesh is very competitive. Similarly, from Table 2, we find that the indices are less than 1500 and the indices are gradually decreasing over the observed years. Such values imply that the leasing sector in Bangladesh is too much competitive and becoming highly competitive over the recent years. Comparing the indices Table 1 with that of Table 2, it is found that banking industry in Bangladesh is more competitive than the leasing companies.

Challenges faced by leasing companies in Bangladesh: The leasing companies are facing problems to compete with banks. One of the major problems of leasing companies to compete with banks is the low paid up capital. Because of low paid up capital they cannot expand their markets like banking institutions. Another problem is that banks can collect short term deposits that the leasing companies cannot collect. For that reason the cost of capital of banks are lower than the cost of capital of leasing companies. Thus, high cost of capital is a problem for leasing companies to compete with banks. Higher service charges are also a problem for

leasing companies. Sometimes the lessee makes delay in rental payment and this makes difficult for leasing companies to compete with banks. Lack of government assistance and lack of appropriate rules and regulations are also challenges for leasing companies to compete with banks. Investment in high risk portfolio, mismatch between long term asset and liability, weak legal system, lack of skilled personnel etc. are challenges of leasing companies in Bangladesh. The motivational activities of banks are less than the leasing companies. Banks in Bangladesh are providing the same services like lease financing that the leasing companies are providing. It increases the competition between banks and leasing companies in Bangladesh. As compared to banks, leasing companies are providing limited number of services. There is a chance of the lease asset to become obsolete in future. If for the reason of technological advancement, the leased asset become obsolete then the asset needs to be changed by the lessor. It can create a problem for the leasing companies.

Capital losses could occur in case of obsolescence. Leasing companies are not as popular as banks in Bangladesh. Lack of popularity and qualified employees are also a challenging issue for leasing companies. These are the problems of leasing companies to compete with banks in Bangladesh (Hassan, 2015).

Recommendations and conclusion

Leasing companies should reduce service charges. Advertisement expenses should be increased by the leasing companies. Transaction cost needs to be reduced. They should try to reduce the risk of obsolescence of machines and equipments. They should provide more flexibility to the customers. Leasing companies should provide wide range of services and they need to provide better customer services and recruit qualified personnel. The leasing companies should try to accumulate capital from the capital markets. The government should improve proper guidelines and instructions for leasing companies to improve the leasing business in Bangladesh. The improvement of leasing business will assist to develop the capital market of Bangladesh. It will enhance the output production of Bangladesh and the economic development will be achieved.

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