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Credit Flows in Bangladesh: An Appraisal of the Changing Structure

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Abstract: *This paper investigates the changing trend and structure of credit flows in Bangladesh based on the credit provided by the scheduled banks of Bangladesh. We observe the trend to be positive in the agriculture, fishery and forestry financing in the form of advance in different phases throughout the observation period. Almost all the scheduled banks have shown a positive trend in financing industrial production in the form of manufacturing advances or industrial advances. Though in low magnitude, Bangladeshi economy is becoming more inclined to the industrial production which is manifested by the increasing share of manufacturing in the GDP. It is indicative of the more popular economics cliché- structural transformation. Almost all the banks have shown leniency in providing the working capital financing. Tremendous growth has been envisaged in the constructional advance by almost all the scheduled banks. Advances provided by all the scheduled banks in electricity, gas, water and sanitary services did not show any smooth trend. Except, NCBs and DFIs, an uptrend in advances in transportation and communication is envisaged by all the banks. In this decade, although huge demand was there, the trend in financing the storages facility is downward. From early 2000, huge take off has been witnessed in financing the trade by all the scheduled banks. The double digit growth in total advances by all the scheduled banks together in the last few years has been quite robust considering the robustness of the amount.*

Keywords: Bank credit, Scheduled banks, NCBs, PCBs, DFIs

1.0 Introduction:

Banking system in Bangladesh has gone through many sweeping changes in the lapse of time. It has been shaped by economic as well as political philosophies. It has been marked by Nationalization first. Afterwards it has been deregulated but with less degree of market orientation. Restrictive regulation had made the major portion of the banking system virtually spoon-fed. Later on, financial liberalization, prudential and information regulation has set the track ready for market based orientation. Consequently, lending norms and practices have gone through changing pattern alike.

The growth and evaluation of financial system of Bangladesh since liberation can be viewed in the three broad phases. The decade of 1970s can be called the period of reconstruction and rehabilitation. The period from 1972 to 1982 was marked by expansion of bank branches, particularly, Nationalized Banks branches to cater the needs of the war torn economy. The period from 1983 to 1990 was the period of denationalization of banks and allowing new banks in the private sector to augment

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competition in the banking sector. The period from 1990 up till now can be termed as the period of financial liberalization and consolidation of the banking system.

Since 1972 the banks of Bangladesh used to operate under a regime of rigid government control and central bank regulations. The regulation covered fixation of interest rate on deposits and credits, direction, of credit to public sector enterprises and to priority sectors, directed expansion of banks branches. During the period, 1972-82 the bank services i.e. deposits mobilization; deployment of credit and branch expansion was significantly in favor of the rural areas compare to the urban areas. Nevertheless, there was no prudential and informational regulation on the banking sector. As a result, the banks persuade a policy of rapid credit expansion without analysis was replaced with socio-economic considerations. On the other hand, the lending rates on priority sectors were kept such a lower rate, which did not cover the risk and cost. Consequently, a huge proportion of assets profile became overdue and profitability of the banks declined. Since 1982, the government of Bangladesh for the first time decided to take restructuring measures in the form of denationalization and privatization of the banks. Nevertheless, they estimated that the operational efficiency and customer service was not improved because of absence of prudential and informational regulations **(Choudhury, 1998).**

2.0 Review of literature

Financial repression is the main cause for poor performance of growth and investment in developing countries. Directed credit program like interest rate ceiling and high reserve ratios are the main sources of financial repression, which ultimately produce low investment and credit rationing. According to them due to financial repression not only the quantitative term also suffer, since considering the marginal productivity of investment fund is not disbursed. They suggest liberalized financial system, so that demand and supply could determine the real of interest and increase both savings and investment **(McKinnon, 1973).** The impact of financial reform program does not seem to be generally positive in Bangladesh. With the implementation of reform program since January, 1990 the rate of growth of assets and liability of the banking system in Bangladesh has slowed down to some extent. He also noticed that despite the real interest, rates remained positive and the banking system had huge liquidity, sluggish growth in credit by both SBs and NCBs in Bangladesh during the implementation period of reform thus creating a cause for concern. However, the welcome aspect of the financial reform is that it has introduced transparency in the profit and loss statement and the balance sheet of the banks **(Ahmed, 1995)**. Banks are concerned about the interest rate they receive on loan and the riskiness of loan. To identify the good borrowers bank use interest rate as a screening device. Those who are willing to pay higher interest rate may be "worse risk", since they are willing to borrow even at higher rate because they perceive their probability of repaying loan to be low. As the interest rate rises, the average riskiness of those borrower increases, possibly lowering the bank's profit **(Sitiglitz & Weiss, 1981).**

Murshid Kuli Khan (1993), in his study named "Credit flow after interest rate liberalization:

Issues and problems" has observed that the theory of liberalization now appears to be in complete and came under reconsideration. Experiences from the liberalized countries put

forwarded new thinking. It has been shown that even under withdrawal of credit ceilings and other restriction, banking system are not able to allocate credit efficiency in the presence of imperfect information. He also argued that the withdrawal of ceiling on deposit and credit rates might be too early to determine the benefit of the liberalization.

In respect of commercial banks, **Desai (1980**) suggests that the key areas of performance are deposits, advances to priority sectors, credit to public and preferred sectors, foreign exchange, cost and expenditure, profitability and customer service. The recovery activities and recovery performance of a bank is directly related to some of his identified areas, like- advances to priority sectors, credit to preferred and public sectors.

3.0 Objective of the study

The broad objective of the study is to reveal the changing structure of advances pattern by the scheduled banks operating in Bangladesh. The specific objectives are outlined below:

- To identify the pattern of advances by various categories of scheduled banks- Nationalized Commercial Banks (NCBs), Specialized Banks, Privatized Commercial Banks (PCBs), Foreign Banks, and Islamic Banks.
- To observe the correlations among the advances by the scheduled banks and the contribution of economic sectors to the GDP by correlations analysis.
- To identify the economic purpose wise trend of credit over time.
- To make possible suggestions to improve present credit situation prevailing in the banking sector.

4.0 Methodology of the study:

An exploratory research has been conducted in preparing the paper. Pure basic research has been used. Theoretical and practical studies have also been incorporated. All the data are secondary data. There was no scope for the researcher to physically visit the commercial banks to watch the credit policy of different commercial banks. Relevant literature survey, observation method were used extensively. The study represents all the scheduled banks in Bangladesh. The banks are divided on the basis of ownership pattern like nationalized commercial banks, private commercial banks, and foreign commercial banks. Total advances are classified on the basis of economic purposes such as agriculture, industry, trade, transportation, and so on. There is no use of primary data in the research. All the data are collected from secondary sources. Various statistical methods have been used for surfacing through data.

Statistical software **SPSS** has been very helpful in finding correlations among different variables, growth rate, trends, etc. Correlations between the advances by the scheduled banks and the sectoral GDP, growth rate of credit flows by various categories of scheduled banks, growth rate of credit flows by sectors- private& public sector, trends of credit flow in by different category of scheduled banks, trend analysis of credit flows by economic purposes (agriculture, industry, working capital finance, etc.) were analyzed critically. Numerical data have been analyzed and interpreted with concentration and relation to the main issue. Data and information collected from different sources were critically compared and found negligible mismatching. Theoretical analysis along with numerical evidences has been used to substantiate the findings of the paper.

5.0 Changing structure of the Economic purpose-wise flow of advances

The various economic purposes for which advances are made by various banks are mentioned below:

- Agriculture, fishing, and forestry
- Industrial advances
- Working capital advances
- Constructional Advances
- Electricity, gas, water and sanitary services
- Transportation and communication advances
- Storages
- Trade
- Miscellaneous

In the upcoming section, the trend in financing various economic activities by the scheduled banks of Bangladesh will be described:

5.1 culture, fishing, and forestry

Bangladesh is an agrarian economy which depends on agriculture from very inception for its existence. The share of agriculture, forestry & fishing has been showing a declining trend in Gross Domestic Product (GDP).

Advances by all the banks: Total credit provided by all the banks stood at quarterly average of BDT 1578616.5 lacs at the end of 2010. From 1986 to 1995, over an extended period of 10 years, agricultural, forestry & fishing advances registered a growth rate of around 93% which only around 10% on an annualized basis. In the recent years, the growth rate in this area hovered around 7-8%. The total advance made by all the scheduled banks in Bangladesh is furnished in annexure. (Table-5.1 and Table 5.2)

Advances by the Nationalized Commercial Banks (NCBs): Nationalized commercial banks advances in the financing of agriculture through advances stood at BDT. 407013 lacs in the year 2010. Throughout the decades of 90's, we observe a steady growth rate in advances to this economic area. But we notice the trend to be declining in the recent years. It was in peak in the year 2002, and after that it started a diminishing pattern. This is shown in annexure. (Table-5.1 and Table 5.2)

Advances by the Specialized banks: Some of the specialized banks, like the Bangladesh Krishi Bank, Rajshahi krishi Unnayan banks, were created with the objective of promoting agricultural produces, and consequently should have the knack for this area and they have shown such intention through their lending pattern. Except a very negligible decline in the year 2007, in almost all the year, the growth rates remained positive and healthy which indicates their distributive efficiency suggested by the disbursement of credit.

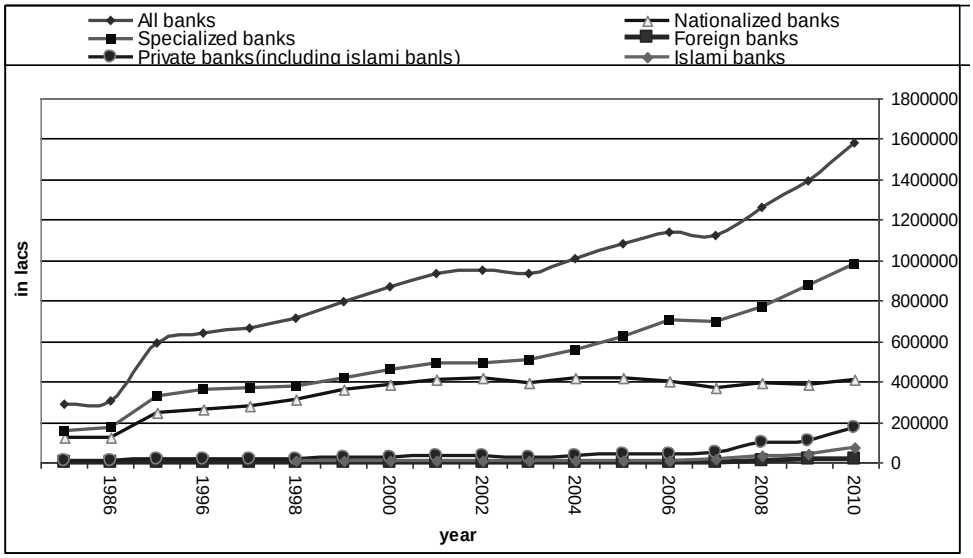
Advances by the Foreign banks: The advances pattern in financing the agricultural, fishing, and fishing is pretty unstable and showed wide variability throughout the reference period. Insightful generalization could not be made due to the erratic trend in financing pattern by the foreign banks in providing advances to the agriculture, forestry

and fishing purpose. But in the later part of the observation period, we notice enormous growth in the disbursement of advances.

Private commercial Banks including Islamic banks: Advances made by the private commercial banks including the Islamic banks were pretty mentionable in the period of 1997-2002 in terms of growth rate stability. It was a bit shaky in the subsequent years though the later trend is quite encouraging in terms of growth rate.

Advances by the Islamic Banks: The financing provided by the Islamic banks in the agriculture, forestry & fishery in the form of advances is pretty much positive and encouraging right from the inception except a sizable blow in the year 2004 and 2005. During the last four years, the advance made by the Islamic banks has increased robustly. The corresponding trend is shown in annexure. (Table-5.1 and Table 5.2)

Aggregate picture:



Graph- 1: Agriculture, Forestry & fishing advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank.

In aggregate, we observe the trend to be increasing in the agriculture, fishery and forestry financing in the form of advance in different phases throughout the observation period. The trend has been augmented by the strong growth of the advance by the specialized banks and private banks. It could have been stronger had the nationalized banks showed a steady growth in stead of diminishing pattern in the recent years.

5.2. Industrial advances

Industrial production has been assuming a very significant role in our GDP. In the recent fiscal, manufacturing contributed around 18% in GDP which was around 13% in the 1993-94 fiscal. Advances by the banks seem play a great role in this enhancement of the contribution of the industrial sector in GDP.

Advances by all the banks: Almost all the scheduled banks have shown a positive trend in financing industrial production in the form of manufacturing advances or industrial advances. During the recent years the trend in advance by all the banks is pretty much healthy. From 1986 to 1995, the phenomenal growth rate of 309% would be around 30% on annualized basis. It indicates the trend of Bangladeshi economy to become more reliable on industrial production to agricultural production and is indicative of the more popular economics cliché- **structural transformation.** The advance provided by all the banks in industrial sector is shown in annexure. (Table-5.3 and Table 5.4)

Advances by the Nationalized Commercial Banks (NCBs): The financing provided by the Nationalized Commercial Banks (NCBs) in the industrial sector was constantly increasing in the second half of the 90's. But it was a bit shaky in the first half of this decade, especially 2002-2005. The total amount of financing in the form of industrial advance by the NCBs stood at quarterly average of BDT 1483394 lacs in the year 2010.

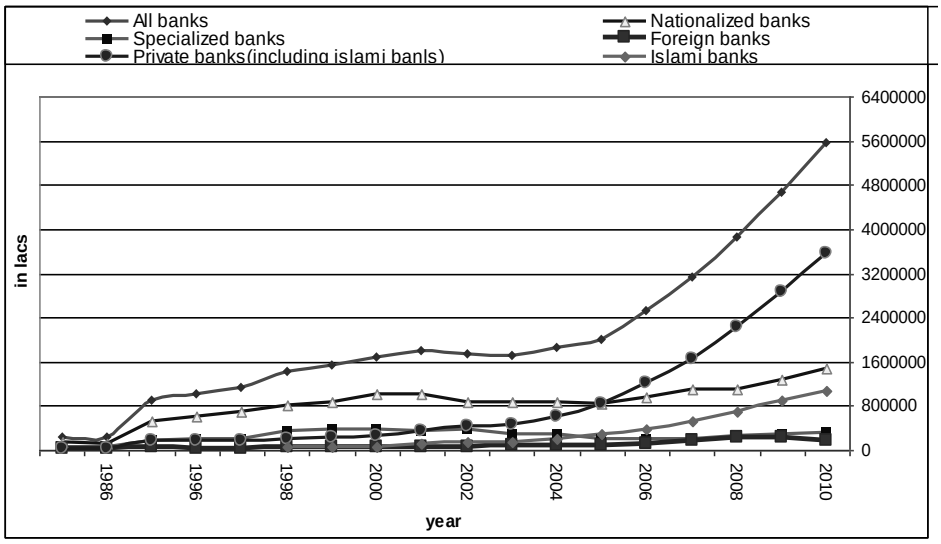
Advances by the Specialized banks: Some of the specialized banks, like the Bangladesh Shilpa Bank, Bangladesh Shilpa Rin Sangstha, were created with the objective of promoting industrial produces, and consequently should have the knack for this area and they have not been quite successful to show such intention through their lending pattern. In many of the years the growth rate showed negative figures indicating lower degree of distributive efficiency. The high degree of Non-Performing Loans (NPLs) of the specialized banks also has been very discouraging from the national point if view.

Advances by the foreign banks: Industrial financing by the foreign banks has not been stable throughout the observation period, except in the later part of the reference period. From 2003onwards, the growth rate has been mentionable. But in the later part of the 90's, the growth rate has been shaky and unstable.

Private Commercial Banks including Islamic banks: Financing by the private commercial banks in the industrial production has been quite laudable. After the 1995, the growth rate has never been in the negative territory. It becomes obvious from the years 2000 onward that the growth rate has been quite healthy. This growth was supported by the emergence of newer private banks as well as establishment of new branches by the existing ones. The growth picture is furnished in annexure (Table-5.3 and Table 5.4).

Advances by the Islamic Banks: Like the Private commercial banks, the financing facility provided by the Islamic banks has also been quite laudable. Starting from the inception in the 1998, the Islamic banks never showed negative growth rate, rather went on increasing the amount year by year mounting the total advances to a quarterly average of BDT 1072844 lacs in the year 2010. The amount was only 48638.25 lacs in the year 1998.

Aggregate picture: industrial advances: In aggregate, we notice that the trend of financing the industrial sector by all the banks has been positive. The nationalized commercial banks and the specialized banks showed a slowing down in industrial advances early in this decade. Except that, all the banks have shown a big jump in industrial advances throughout the reference period. This is shown below in the composite graph.



Graph- 2: Industrial advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank.

5.3. Working capital advances

Working capital advance plays a determining role in the smooth functioning of the businesses in the economy. It actually accommodates the seasonal variations in the demand for financing by the businesses and helps to stabilize the businesses. These loans are important even to the established businesses. Industrial productions also depend on the timely availability of the working capital.

Advances by all banks: All the banks have shown a leniency in disbursement of working capital for the businesses like financing they provided for the industrial production. Except for a negative growth in only a single year in 2000, the growth rate has been stable and increasing. Early in this decade, the growth rate in the advances by all banks quite sizable. The aggregate financing provided in the form of advances by all the banks is furnished in annexure. (Table-5.5 and Table 5.6)

Advances by the nationalized Commercial Banks: Advances provided by the nationalized Commercial banks for the working capital were healthy. In the recent years the growth rate has been quite positive. In the year 2006, it was at its peak when the quarterly average stood at BDT 975163.75 lacs.

Advances by the specialized banks: Specialized banks also showed positive advance policy in case of working capital financing. Except the 1996, the growth rate was never in the negative territory after 1996. But the pattern has been quite reversed in the recent years. The amount of quarterly average was at the peak in the year 2010 when it stood at BDT 151376 lacs.

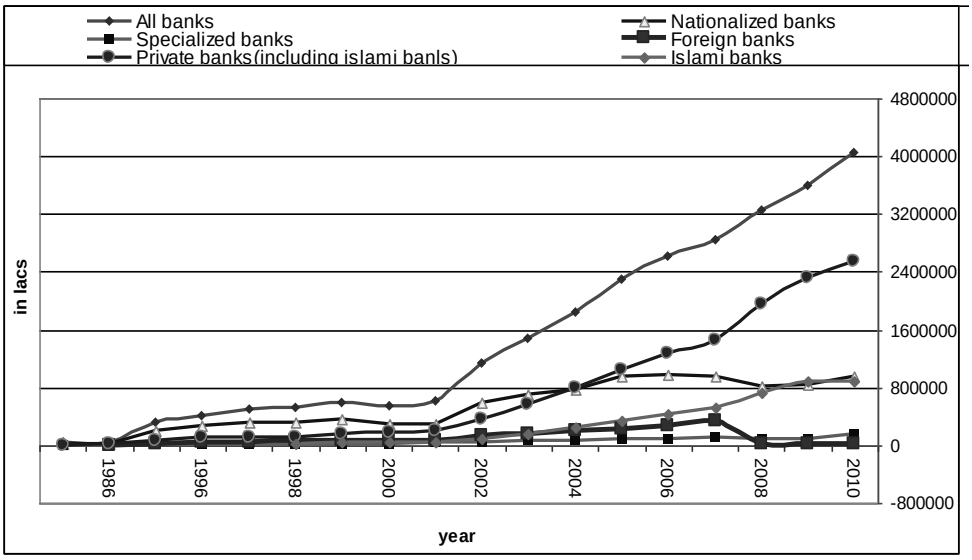
Advances by the foreign banks: Due to the profitable nature of the working capital advances, the foreign banks have a special neck for providing finance in this area. From

1986 to present time, the growth rate has always been positive and sizable as well. The growth rate has become even healthier in this decade. The advance pattern and the growth rate are shown in annexure. (Table-5.5 and Table 5.6)

Advances by Private Commercial Banks including Islamic banks: The private sector banks have shown a mania for providing financing the working capital. The growth arte was never negative and at the same time the growth rates have been quite handsome. From 1986 to 1995, the growth rate was 626.38% which would be quite healthy on an annualized basis too. The amount of quarterly average stood at BDT 2539277 lacs in the year 2010.

Advances by the Islamic banks: The financing pattern of the Islamic banks in case of working capital is even more encouraging. Each and every year, the Islamic banks have increased the volume of advances in this area thereby producing sizable and positive growth rates. In the year 2010, the amount stood at BDT 882205 lacs, which was only BDT 28485.25 lacs in the year 1998.

Aggregate picture: working capital advance: In aggregate, what we notice is that, throughout the reference period, almost all the banks have shown leniency in providing the working capital financing. But the trend became more apparent from 2000 and onwards. The aggregate situation has been led by the enormous financing by the private commercial banks and the foreign banks.



Graph- 3: Working capital advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank.

5.4. Constructional Advances

In the GDP, the share of construction hovers around 8% from 1994 to present time. As a result the contribution of construction in GDP is quite big. Here the financing pattern of the scheduled banks in this important sector in the form of advances will be furnished:

Advances by all the banks: All the banks as a whole have shown a positive attitude in financing the constructional activities in the form of advances. In the year 1985, the amount of advance by all the banks was meager at a quarterly average of only BDT 23337 lacs which jumped to BDT 19296058 lacs in the year 2010. In this decade, the growth rate has remained quite high and positive. The total picture is presented in annexure. (Table-5.7 and Table 5.8)

Advances by the Nationalized Commercial Banks (NCBs): Except the year 2004, the nationalized commercial banks have shown a positive attitude in financing the constructional activities in the country. The amount was at its peak in the year BDT 485003 lacs in the year 2010. It was only 13895 lacs on a quarterly average basis in the year 1985.

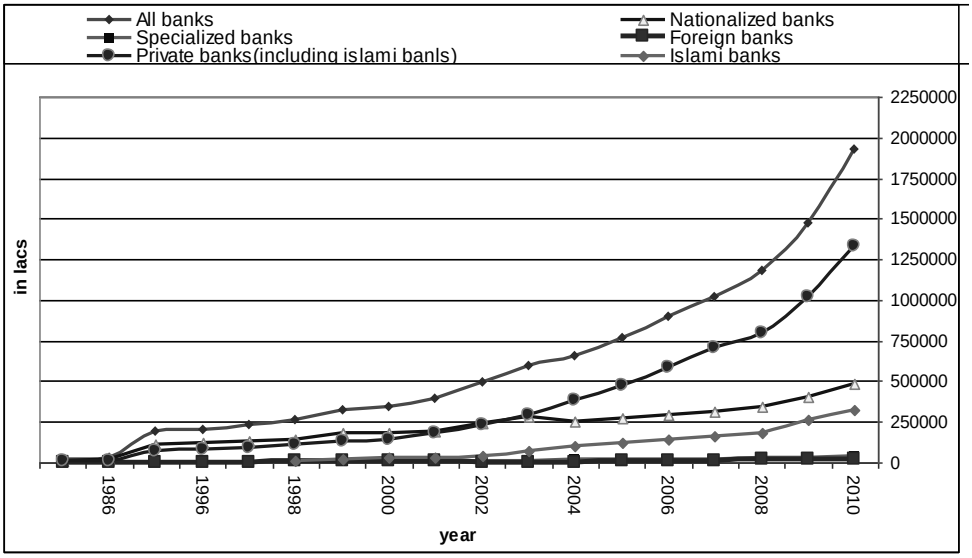
Advances by the specialized banks: Each and every year, the specialized banks have increased the volume the lending in the constructional finance. From a meager quarterly average amount of only BDT 842 lacs, the amount of advances by the specialized banks stood at a quarterly average of BDT 40045 lacs in the year 2010. In all the years in the reference period of study, the growth rate remained positive and sizable.

Advances by the foreign banks: Advances by the foreign banks in financing the construction are quite volatile though the general trend has been positive throughout the period of observation. The growth rate has remained quite shaky and unstable. In the year 2002, there was a setback in the amount of advances by the foreign banks by a negative growth rate of massive 70%. After that, there was consecutive rise in the amount of advances in this sector.

Advances by private commercial banks including the Islamic banks: The overall trend of advances by the private commercial banks has been very lenient in the construction sector of the country. The growth rate was never in the negative territory after the year 1985. In the year 1985 the amount of quarterly average was only BDT 7099 lacs, which has reached to BDT 1335283 lacs in the year 2010.

Advances by Islamic banks: The Islamic banks have also shown a positive knack for construction advances since the inception. With sizable growth rates in almost all the year, the amount of quarterly average stood at BDT 324849 lacs in the year 2010 which was only BDT 10762 lacs in the year 1998.

Aggregate scenario: constructional advance:



Graph- 4: Constructional advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

Tremendous growth has been envisaged in the constructional advance by almost all the scheduled banks. With very low level in 1986, there was revolutionary increase in the amount of financing the constructional activities through advances by almost all the banks. The aggregate scene has been led by the massive increase in lending by the private commercial banks, nationalized commercial banks and the Islamic banks. All these facts are portrayed in the composite graph.

5.5. Electricity, gas, water and sanitary services:

All scheduled banks: Advances provided by all the scheduled banks in electricity, gas, water and sanitary services did not show any smooth trend. The trend was quite erratic and was unstable. We notice that the advance amount moves around quite rashly, even up 981.92%, again down by 92.21%. In the year 1985, the quarterly average was BDT 6949 lacs which came down to BDT 817 lacs in the year 2008. In the year 2010, the advance amount by all the banks stood at 5351 lacs. This is furnished in annexure. (Table-5.9 and Table 5.10)

Advances by the Nationalized Commercial banks: The advance policy by the nationalized commercial banks did not show any stable direction rather was quite unstable. In the later part of the observation period, we notice a downward trend in the financing pattern of the nationalized commercial banks. In fact in the recent years, we notice very insignificant amount of advances by the nationalized commercial banks.

Advances by the specialized banks: The specialized banks provided very insignificant amount of advances in this particular sector. Even it came down to zero in some of the

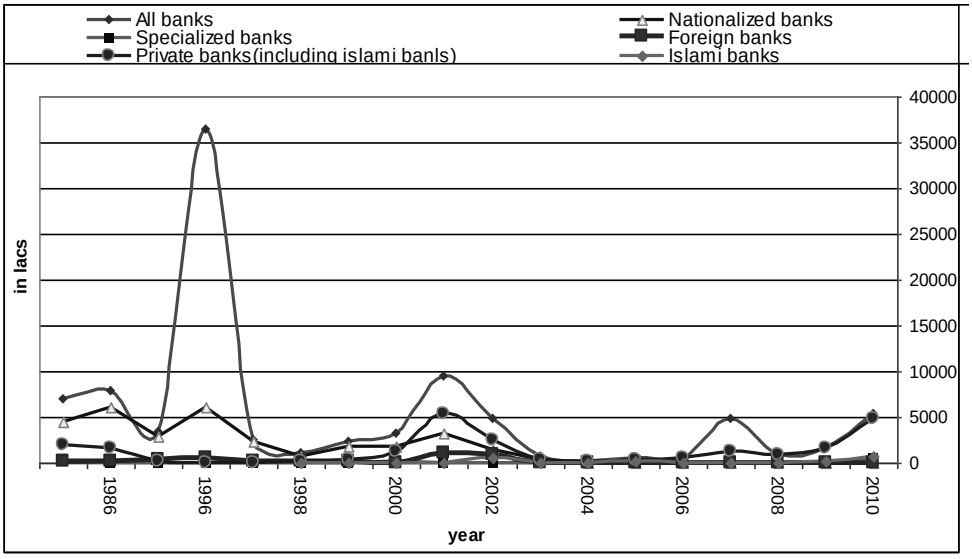
recent years. Observation indicates that the specialized banks don't have any priority for providing loans in this area.

Advances by the foreign banks: Foreign banks provided very insignificant amount of advances in this particular sector. In the recent years we notice that the foreign banks did not provided any advances in this sector.

Advances by the private commercial banks including Islamic banks: With some degree of fluctuation, the private banks including the Islamic banks provided significant amount of advances in this sector. The advances by the private commercial banks peaked in the year BDT 5374 lacs in the year 2001. In the last year, we notice a declining trend, though in other recent years, the trend was positive.

Advances by the Islamic banks: The lending pattern by the Islamic banks registered a positive growth pattern in the recent years. In the year 2010, the Islamic banks altogether provided BDT. 654 lacs loans in this sector.

Aggregate scenario: electricity, gas, water, and sanitary services advance: In aggregate, we notice that the trend in financing in this sector in the form of advances has declined massively in the recent years. Thanks to the lending by the private commercial banks, otherwise the overall growth rate would have been hovering around in the negative territory.



Graph- 5: Electricity, gas, water & sanitary services advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

5.6. Transportation and communication advances

The contribution of transportation & communication in the national GDP was 8.66% in the year 1993-94, which jumped to 10.12% in the year 2007-08 fiscal. It is quite high considering other sectors as a single sector contribution.

Advances by the all banks: In the later part and the initial part of this decade, the overall trend was quite positive in financing transportation and communication sector by all the scheduled banks. With some setbacks in the growth rates, the overall growth rate was quite encouraging from national point of view. The amount of financing in the year 2010 stood at BDT 335288 lacs, which was only BDT 14858 lacs in the year 1985. This is furnished in annexure. (Table-5.11 and Table 5.12)

Advances by the Nationalized Commercial Banks (NCBs): Advances by the nationalized commercial banks have shown an increasing trend in the recent years. From 2003 onwards, the trend was quite negative. In the year 1985 the amount of advances by the Nationalized Commercial Banks was BDT 7828 lacs on a quarterly average basis which jumped to BDT 32905 lacs in the year 2010.

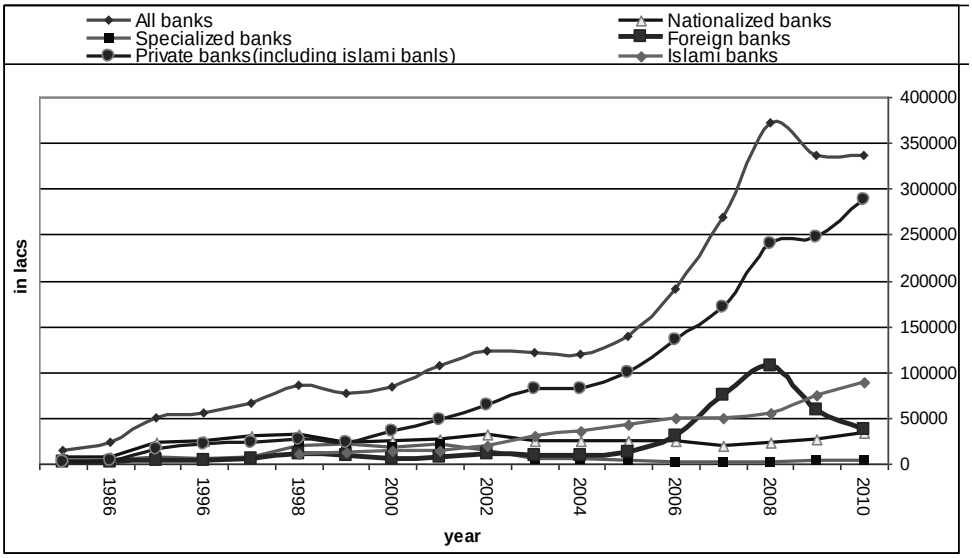
Advances by the specialized banks: The trend in financing by the specialized banks got momentum in the later part of the 90's. After 1999, the trend took a negative shape declining almost every year. The amount was at its peak in the year 2001 when the amount was BDT 22161 lacs. It drastically came down to only BDT 3250 lacs in the year 2010.

Advances by the foreign banks: Advances by the foreign banks have shown a negative trend in the recent years. In the year 1985 the amount of advance by the foreign banks was only BDT 1135 lacs on a quarterly average basis. It stood at BDT 36814 lacs in the year 2010.

Advances by private banks including Islamic banks: In this decade the private commercial banks have shown an overall positive trend. Except the year 2004, in the recent years we have noticed enormous increase in the lending figure by the private commercial banks. In the later part of the 90's, we also see a positive trend except the year 1999 when we notice a decline by around 11 percent.

Advances by the Islamic banks: Like the privatized commercial banks, the Islamic banks also showed positive trend in financing the transportation and communication in the form of advances. Overall the trend is quite positive. The amount of advances was only BDT 11365 lacs in the year 1998 on a quarterly average and it jumped to BDT 88863 lacs in the year 2010 on a quarterly average basis.

Aggregate scenario: transportation and communication advances: In aggregate scenario, we notice an uptrend in advances by all categories of banks except specialized and Nationalized Commercial Banks (NCBs). The uptrend in advances has been led by the enormous increase by the private commercial banks and foreign banks. The overall aggregate situation is depicted below in the composite graph.



Graph- 6: Transportation & communication advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

5.7. Storages Loans:

Advances by all banks: From 1995 to 2000, we noticed a constant increase in the financing provided by all scheduled banks in the trade financing in the form of advances. But after that the overall trend is downward. The amount of advances was at its peak in the year 2000 when the amount was BDT 102247 lacs on a quarterly average. It came down to BDT 62168 lacs in the year 2010. This is shown in annexure (Table-5.13 and Table 5.14)

Advances by the nationalized commercial banks: From 1985 to 2000, we noticed a positive trend in financing the storages in the form of advances by the nationalized commercial banks. But in this decade, we observe the trend is quite reverse and the growth rate remained, for most of the time, in the negative territory.

Advances by the specialized banks: The specialized banks have been showing a downward trend in financing the storages in the form of advances in the recent years. In the later part of the 90's, we have witnessed a quite positive growth rate in the financing of storages in the form of advances. The amount of advance in 1985 was BDT 6067 lacs on a quarterly average which stood at BDT 19849 lacs in the year 2010 on a quarterly average basis.

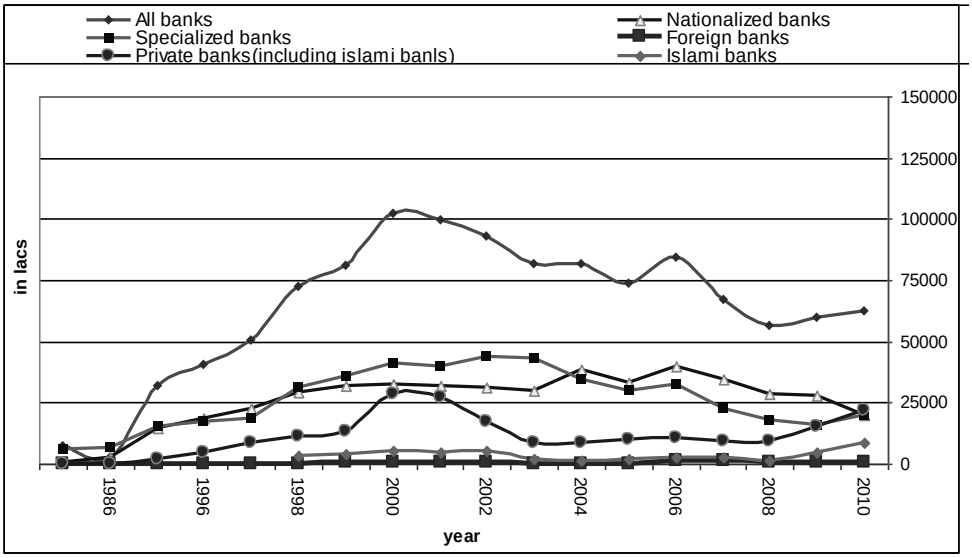
Advances by the foreign banks: The foreign banks have shown a rather unstable pattern in financing the storage in the form of advances. In some years, the growth rate has been positive with massive increase. The growth rate again was down by sizable amount in the following year.

Advances by the private commercial banks including Islamic banks: The private banks have shown a positive trend in financing the storages in the form of advances in the

later part of 90's. But in this decade, the growth rate has been a bit shaky. From a meager amount of BDT 213 lacs in the year 1985 on a quarterly basis, the amount mounted to BDT 28610 lacs in the year 2000. Again it stood at BDT 21663 lacs in the year 2010.

Advances by the Islamic Banks: The Islamic banks have shown a similar pattern like the private commercial banks in this decade in financing the storages in the form of advances. During the last two years, the trend became positive. The amount was at its peak in the year 2010.

Aggregate scenario: storages advance: In aggregate, what we observe is that the financing in the form of advances has shown a revolutionary rise in the later part of the 90's and the early part of this decade led by the growth in advances by the nationalized commercial banks, specialized banks and the private commercial banks. Subsequently we observe a negative trend in this form of advances.



Graph- 7: Storages advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

5.8. Trade advances

Wholesale and retail trade assumes a dominant role in our GDP. In the year 1993-94, the contribution of wholesale and retail trades was 12% which has jumped to 14.5% in the year 2006-07. So as a single sector contribution it is huge and thus has a decisive role in determining the GDP. The advance made by the scheduled banks in this area in the form of advances is described below.

Advances by all banks: All the scheduled banks together made advances in trade financing in voluminous amount each and every year. After 2000, we notice the growth rate to be high enough and always maintained a double-digit growth. From BDT 372079 lacs on a quarterly average in the year 1985, the amount of advances has jumped to BDT10006273 lacs in the year 2010. The financing in this sector in the form of advance is shown in annexure. (Table-5.15 and Table 5.16)

Advances by the nationalized commercial banks: The nationalized commercial banks have been financing trade from remote time and has maintained good growth rate throughout. The absolute amount stood at BDT 2013113 lacs in the year 2010.

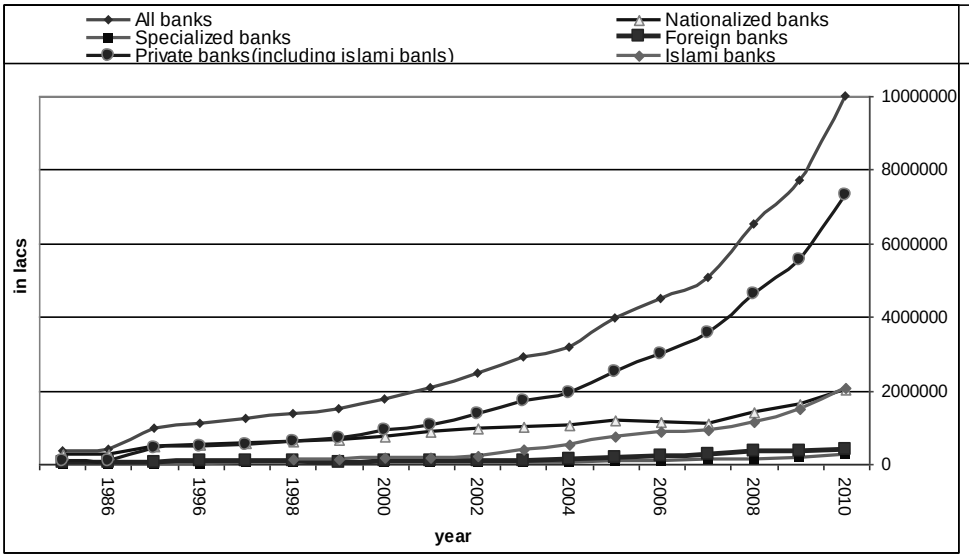
Advances by the specialized banks: Trade financing by the specialized banks have shown a good trend. Except a meager negative growth in the year 2002 we noticed positive growth rate throughout the observation period. In the decade s of 90's, the growth rate has been laudable. In the year 1985, the quarterly average was 0nly BDT 4655 lacs, which has climbed up to BDT 263941 lacs in the year 2010.

Advances by the foreign banks: Due to the lucrative profit potentials, foreign banks have shown a knack for financing in the trade related advances alongside discounting bills. With only exception of negative growth rates in the year 1998 and 1999, foreign banks have increased the volume of advances in this sector with robust growth rate. The growth rates have been quite healthy in this decade and remained positive. The amount of advances by the foreign banks stood at BDT 400884 lacs in the year 2010.

Advances by private commercial banks including Islamic banks: The role of private commercial banks in financing trade in the form of advances has been praiseworthy throughout the reference period. Starting from 1985, the growth rate has been amazing and has always maintained double digit growth. From a meager amount of BDT 84183 lacs on a quarterly average in the year 1985; the amount of advance has increased to BDT 7328334 lacs in the year 2010.

Advances by the Islamic banks: Like the private commercial banks, the Islamic banks also have shown a positive growth rate throughout the reference period. The growth rate was never in the negative territory, and in some of the years the growth rate has been phenomenal. In the year 2000 and 2005, the growth rate was well above 40%.

Aggregate scenario: trade advances:



Graph- 8 Trade advances by Scheduled Banks
Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

In aggregate we notice an overall positive trend in trade related advances. The growth rate in advances in financing the trade has taken a momentum from early 2000. This take off has been fueled by the high growth rate of advances by the private commercial banks, Islamic banks, foreign banks.

5.9. Miscellaneous advances:

Advance by all the scheduled banks: In the miscellaneous advances, all the banks have shown a positive trend except the year 2002 and 2003. In all other years in the observation period, we notice good positive growth rate in financing the miscellaneous activities in the form of advances by all the scheduled banks.

Advances by the nationalized commercial banks: Except negative growth rate early in this decade and the year 2007, we notice quite positive trend in financing the miscellaneous activities in the form of advances by the nationalized commercial banks. In the year 2010, the absolute amount of advance stood at BDT 311302 lacs, which was only BDT 21389 lacs in the year 1985.

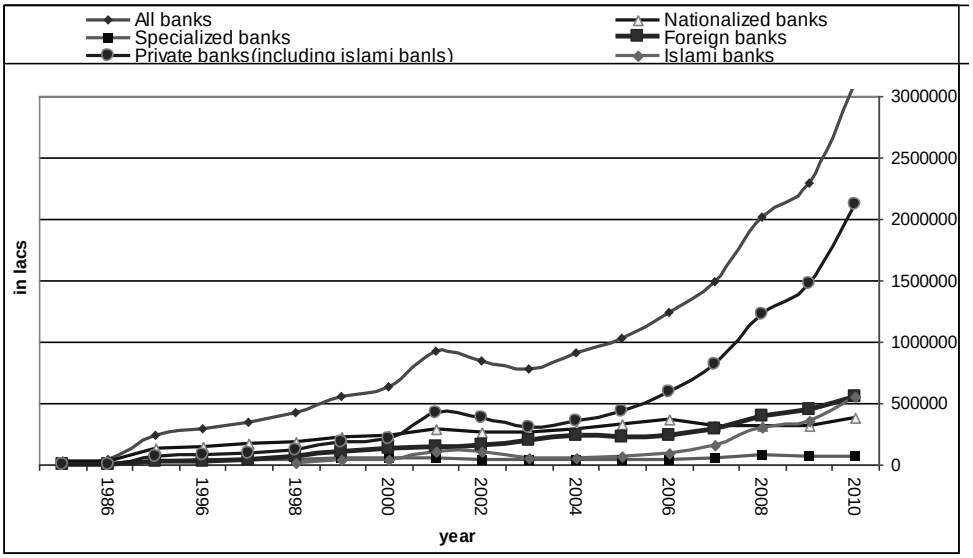
Advances by the specialized banks: Except a faltering in the 2002 and 2003 and 2009, we notice the trend to be positive in financing the miscellaneous activities in the form of advances by the specialized banks. The amount was at its peak in the year 2010 on a quarterly average basis. The amount of advances in the year 1985 was only BDT 56 lacs on a quarterly average basis, which has manifolds in very short time. In the recent time, the growth rate has been well above 30%.

Advances by the foreign banks: The foreign banks have shown an overall positive trend in financing the miscellaneous activities in the form of advances. With only a meager decline in the year 2005, the growth rate in the advances by the foreign banks in this area has been growing year by year. In the later part of 90's, the growth rate has been quite high.

Advances by the private banks including Islamic banks: The Islamic banks have also shown a positive overall trend in financing the miscellaneous activities in the form of advances. The growth rate has been negative only in the year 2002 and 2003. The growth rate is quite high considering the volume of advances by the private commercial banks in this area. From a small amount of BDT 3552 lacs advances in the year 1985, the figure has gone up quite high and stood at BDT.2116528 lacs in the year 2010.

Advances by the Islamic banks: The overall trend of financing the miscellaneous activities by the Islamic banks has been positive. Though there was a faltering in the year 2003, the recent growth rate has been quite praiseworthy. In the last five years, the amount of financing has been increasing quite robustly.

5.9.7. Aggregate scenario: miscellaneous advances: In aggregate, we notice the trend to remain positive in the reference period. One thing becomes obvious from the graph that the trend has been fueled by the growth rate in the advances by the private commercial banks. The overall trend has been crucially dependent on the private commercial banks and the foreign banks.



Graph- 9 Miscellaneous advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

5.10 Total advances

Advances by the scheduled banks play a very decisive role in the circulation of the economic activities of the country. The total advances by all the schedules banks, category-wise, are described below.

Advances by all banks: The growth rate in advances by all the scheduled banks together has remained positive throughout the reference period. The double digit growth in advances by all the scheduled banks together in the last few years has been quite robust considering the robustness of the amount. From a meager amount of BDT 1008556 lacs in the year 1985 on a quarterly average basis, the amount climbed to BDT 26621667 lacs in the year 2010.

Advances by nationalized commercial banks: Only with a minuscule negative growth rate in 2007, the overall trend in financing in the form of advance by the nationalized commercial banks has remained positive. Though in the recent years the growth rate has come down a bit, but in the later part of the 90's, the growth rates were in the double digit figures. In the year 1985, the amount of advances was only BDT 585473 lacs on a quarterly average basis. It stood at BDT 5773017 lacs in the year 2010 on a quarterly average basis.

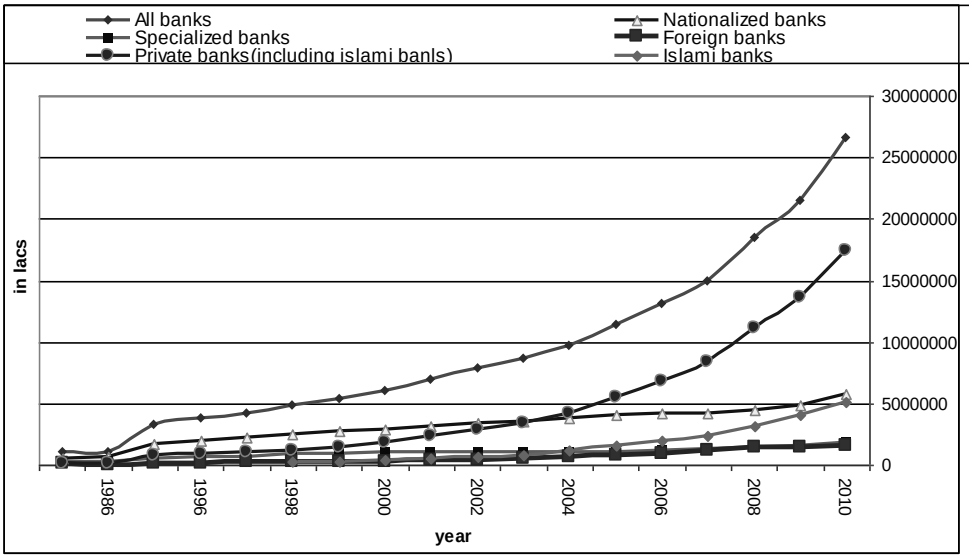
Advances by the specialized banks: The growth rate in financing by the specialized banks in the form of advances has remained positive overall throughout the observation period, though in the recent years the growth rate has been a bit slower. In the year 1985, on a quarterly average basis, the amount of advances was only BDT 227489 lacs. It has gone up manifold in the phase of time and has stood at BDT 1848205 lacs in the year 2010. We observe a negative growth rate of 5.77% in the year 2003.

Advances by the foreign banks: We notice an unaltered positive growth trend in case of the foreign banks throughout the observation period. The foreign banks have maintained a double-digit growth rate throughout the observation period except 2009. In the recent years, the growth has been geared up a bit. In the year 1985, the amount of total advances by the foreign banks on a quarterly average basis was only BDT 48117 lacs. It climbed up to BDT 1594266 lacs in the year 2010.

Advances by private banks including Islamic banks: The growth rate in total advances by the private commercial banks has been astronomical throughout the reference period considering the volume of advances. Maintaining a quite robust growth rate above 20% is mentionable. In fact, the aggregate advance in the total banking system has been intricately related with the advances by the private commercial banks. In the year 1985, the amount of advances was only BDT 136934 lacs on a quarterly average basis. It has jumped up to BDT17381179 lacs in the year 2010.

Advances by the Islamic banks: Like the private commercial banks, the Islamic banks have also been quite contributing factor in the overall trend of advances by all the banks. Since inception, the growth rate has been quite healthy and hovered above 20%. In the year 2010, the amount of advances by the Islamic banks stood at BDT 5082444 lacs. It was only BDT 237339 lacs in the year 1998.

Aggregate scenario: Total advances: In aggregate, we notice the trend to be positive in the total amount of advances by the scheduled banks. What becomes obvious from the composite graph is that the trend in advances has been fueled by the growth in advances by the private commercial banks in particular and the growth in advances by the nationalized commercial banks and foreign banks in general.



Graph- 10 Total advances by Scheduled Banks

Source: Scheduled Banks Statistics, 1985-2010, Bangladesh Bank

6.0. Statistical findings: To observe whether there exists any relationship among the credit provision of scheduled banks in any particular sector and corresponding contribution by that sector in the national GDP, we have calculated the correlation coefficients. Major statistical findings in terms of the observed correlations are mentioned below:

Correlation between	correlation coefficient (r)	Comments
Sectoral share of Agriculture, Forestry & fishing in GDP and Advances by the scheduled banks in the concerned area	0.832	High degree of positive relationship
Sectoral share of Industrial production in GDP and Advances by the scheduled banks in the concerned area	0.97	High degree of positive relationship
Sectoral share of Construction in GDP and Advances by the scheduled banks in the concerned area	0.968	High degree of positive relationship
Sectoral share of Electricity, gas, water & sanitary services in GDP and Advances by the scheduled banks in the concerned area	-0.313	Low degree of negative relationship.
Sectoral share of Transportation, storage and communication in GDP and Advances by the scheduled banks in the concerned area	0.943	High degree of positive relationship
Sectoral share Wholesale & retail trade in GDP and Advances by the scheduled banks in the concerned area	0.952	High degree of positive relationship

6. Major findings

From the whole study, various important finding emerge. But the most important and intriguing ones are mentioned below:

Advances: Economic purpose wise

- We observe the trend to be positive in the agriculture, fishery and forestry financing in the form of advance in different phases throughout the observation period. The trend has been augmented by the strong growth of the advance by the specialized banks and private banks. It could have been stronger had the nationalized commercial banks showed a steady growth in stead of diminishing pattern in the recent years.
- Almost all the scheduled banks have shown a positive trend in financing industrial production in the form of manufacturing advances or industrial advances. It indicates the trend of Bangladeshi economy to become more

reliable on industrial production to agricultural production and is indicative of the more popular economics cliché- **structural transformation.**

- Almost all the banks have shown leniency in providing the working capital financing. But the trend became more apparent from the year 2000 and onwards. The aggregate pace has been led by the enormous financing by the private commercial banks and the foreign banks.
- Tremendous growth has been envisaged in the constructional advance by almost all the scheduled banks. With very low level in 1986, there was revolutionary increase in the amount of financing the constructional activities through advances by almost all the banks.
- Advances provided by all the scheduled banks in electricity, gas, water and sanitary services did not show any smooth trend. The trend was quite erratic and was unstable.
- In case of transportation and communication advances, we notice an uptrend in advances by all categories of banks except specialized and Nationalized Commercial Banks (NCBs).
- From 1995 to 2000, we noticed a constant increase in the financing provided by all scheduled banks in the storages financing in the form of advances. But after that the overall trend has been downward.
- In aggregate we notice an overall positive trend in trade related advances. The growth rate in advances in financing the trade has taken a momentum from early 2000. This take off has been fueled by the high growth rate of advances by the private commercial banks.
- The growth rate in total advances by all the scheduled banks together has remained positive throughout the reference period. The double digit growth in advances by all the scheduled banks together in the last few years has been quite robust considering the robustness of the amount.

6.2 Conclusive thoughts: Advances by the scheduled banks represent almost 97 percent of the total bank credit. It is no wonder that GDP of the country would be dependent intricately with the performance of the banking system in general and the volume of lending by the scheduled banks in particular. Throughout the analysis, we have come up with similar kind of findings. The volume of lending by the scheduled banks has been increasing each and every year. But the regulatory body and the all concerned should be cautious of the fact that Bangladesh has the topped the list of some selected Asian countries in respect of Non-Performing Loans (NPLs). The NPLs has been as high as 14% in the year 2007, thanks to the recent recovery by the banks. The NPL percentage was as high as 28.1% in the year 2002 (Global Financial stability report, IMF, April 2008). So, bankers should be more cautious while lending to the Deficit Spending Units (DSUs) of the economy without jeopardizing the peoples' money with whom the banks carry out business. The role of bank advances in keeping the wheel of economy moving is absolutely vital. But in the face of global financial crisis and economic downturn, careful and cautious lending policy should be in practice just not to jeopardize the peoples' money but for a financially sound, technically & truly operational banking

system. It is important to nurture and foster peoples' trust because at the end of the day, banks do business with peoples' money.

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Appendix:

Table-5.1: Agriculture, fishing & forestry advances (quarterly average) by all banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	289772	125797	154149	782	9042	N/A
1986	305488.75	124091.75	172267.25	677.5	8450.5	N/A
1995	589506.25	242978.75	325173.5	1397	19957	N/A
1996	636770.25	259349.25	359611.5	1168	16641.5	N/A
1997	665302.75	276912.25	369294.75	1387.75	17708	N/A
1998	711864.5	314486.5	376881.75	686	19810.25	5284.25
1999	797374	356832.25	418110.25	511	21920.5	6454.5
2000	863730.75	383335	454388.25	545.25	25462.25	8185.5
2001	934286	412432	492010	759.75	29084.25	9727.5
2002	948918.25	419691.25	493951.5	195	35080.5	12067.5
2003	930475.25	395133.5	507853.75	276.75	27094.5	5538.5
2004	1006155.25	420662	552350.75	506.75	32635.75	4596.5
2005	1083934.75	417832.75	623717.75	545.25	41839	6688.75
2006	1140231.5	398011	703146.25	865.5	38208.75	8332.5
2007	1121365	370741	697086.5	1818.25	51719.25	16175.75
2008	1259394	390312	766840	6512	95728	29995
2009	1386895	385429.5	878770.25	16746.75	105948.5	39978
2010	1578616.5	407013.25	985041.75	14172	172389.5	69824.75

Source: Scheduled Banks Statistics, 1985-2008

(NCB: Nationalized commercial banks, SB: Specialized banks, FB: Foreign banks, PCB I: Private commercial banks including Islamic banks, IB: Islamic banks)

Table-5.2: Growth rate (GR) of agriculture, fishing & forestry advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	5.42%	-1.36%	11.75%	-13.36%	-6.54%	N/A
1995	92.97%	95.81%	88.76%	106.20%	136.16%	N/A
1996	8.02%	6.74%	10.59%	-16.39%	-16.61%	N/A
1997	4.48%	6.77%	2.69%	18.81%	6.41%	N/A
1998	7.00%	13.57%	2.05%	-50.57%	11.87%	N/A
1999	12.01%	13.47%	10.94%	-25.51%	10.65%	22.15%
2000	8.32%	7.43%	8.68%	6.70%	16.16%	26.82%

2001	8.17%	7.59%	8.28%	39.34%	14.22%	18.84%
2002	1.57%	1.76%	0.39%	-74.33%	20.62%	24.06%
2003	-1.94%	-5.85%	2.81%	41.92%	-22.76%	-54.10%
2004	8.13%	6.46%	8.76%	83.11%	20.45%	-17.01%
2005	7.73%	-0.67%	12.92%	7.60%	28.20%	45.52%
2006	5.19%	-4.74%	12.73%	58.73%	-8.68%	24.57%
2007	-1.65%	-6.85%	-0.86%	110.08%	35.36%	94.13%
2008	12%	5%	10%	258%	85%	85%
2009	10%	-1%	15%	157%	11%	33%
2010	14%	6%	12%	-15%	63%	75%

Table-5.3: Industrial advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	229870	138149	54472	16767	20481	N/A
1986	222730.25	127686.25	58868	16744.75	19429.5	N/A
1995	911391.75	524382.5	177661.25	45710.75	163617	N/A
1996	1007426.75	605732.5	192700.25	33805	175189	N/A
1997	1140562.25	708297.75	207437.25	39580.25	185247	N/A
1998	1432690	808999.75	359464.25	54298.25	209927.75	48638.25
1999	1523371.5	880669.25	369240.5	50414.75	223047	49448.5
2000	1666305.75	1005968.75	362916	48897.25	248523.75	62813
2001	1795263.25	1020148	355491.25	61826.75	357797.25	110009.75
2002	1734676.75	874205.25	381070.5	55191.75	424209.25	130934.5
2003	1714794.5	861378.25	301412.25	75243.25	476731.25	132018.5
2004	1852095.5	874836	276493.75	80812.75	619953	192153.5
2005	2005015.5	850036.25	210327.75	93615	851036.5	278103.5
2006	2507084	965595	204350	117749.25	1219389.75	385917.25
2007	3130534	1113106.25	214875.25	164717.25	1637832.75	512924.25
2008	3837723	1103460	271847	224401	2238016	684265
2009	4654990.5	1276836.25	281335	218265.8	2879053.5	894544.5
2010	5554499	1483394.75	314305.5	181176.5	3575622.25	1072844

Table-5.4: Growth rate (GR) of Industrial advances by all Banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	-3.11%	-7.57%	8.07%	-0.13%	N/A	N/A
1995	309.19%	310.68%	201.80%	172.99%	742.11%	N/A
1996	10.54%	15.51%	8.46%	-26.05%	7.07%	N/A
1997	13.22%	16.93%	7.65%	17.08%	5.74%	N/A
1998	25.61%	14.22%	73.29%	37.19%	13.32%	N/A
1999	6.33%	8.86%	2.72%	-7.15%	6.25%	1.67%
2000	9.38%	14.23%	-1.71%	-3.01%	11.42%	27.03%
2001	7.74%	1.41%	-2.05%	26.44%	43.97%	75.14%
2002	-3.37%	-14.31%	7.20%	-10.73%	18.56%	19.02%
2003	-1.15%	-1.47%	-20.90%	36.33%	12.38%	0.83%
2004	8.01%	1.56%	-8.27%	7.40%	30.04%	45.55%
2005	8.26%	-2.83%	-23.93%	15.84%	37.27%	44.73%
2006	25.04%	13.59%	-2.84%	25.78%	43.28%	38.77%
2007	24.87%	15.28%	5.15%	39.89%	34.32%	32.91%
2008	23%	-1%	27%	36%	37%	33%
2009	21%	16%	3%	-3%	29%	31%
2010	19%	16%	12%	-17%	24%	20%

Table-5.5: Working capital advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	32497	15520	3583	N/A	7851	N/A
1986	45707.75	23813.75	4001.25	7430.25	10461.5	N/A
1995	325556.75	204692.75	14669.5	30204.75	75989.75	N/A
1996	417808.75	260099.75	13578	41734	102397	N/A
1997	486999.75	317919.75	17755.25	44813.5	106511.25	N/A
1998	511747	324681	21108.75	54224	111733.25	28485.25
1999	580418.25	349787.25	27115.5	54334.25	149178.75	36604
2000	544307.75	282247	30402	62475	169183.75	44230.25
2001	601581.25	302075.5	37241	70803.25	191461.5	52355
2002	1127860.5	578274	51155	133390.5	365041	90935.5
2003	1482252	700698.75	58771.75	166407.75	556373.75	157580
2004	1839353.75	772364.25	70234	199702	797053.5	257143.5

2005	2293719.75	943667	84386.5	228550.5	1037115.75	341074
2006	2604881.75	975163.75	91583	262495.75	1275639.25	431069
2007	2846289.75	956446.75	107630	329507.5	1452680.5	530053
2008	3240925	822922	99000	15207	1958367	720708
2009	3603048.3	830813.8	92617.5	16196.25	2328083.25	884820.8
2010	4038563	956091.5	151376	19273.75	2539277.5	882205

Table-5.6: Growth rate (GR) of working capital advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	40.65%	53.44%	11.67%		33.25%	N/A
1995	612.26%	759.56%	266.62%	306.51%	626.38%	N/A
1996	28.34%	27.07%	-7.44%	38.17%	34.75%	N/A
1997	16.56%	22.23%	30.76%	7.38%	4.02%	N/A
1998	5.08%	2.13%	18.89%	21.00%	4.90%	N/A
1999	13.42%	7.73%	28.46%	0.20%	33.51%	28.50%
2000	-6.22%	-19.31%	12.12%	14.98%	13.41%	20.83%
2001	10.52%	7.03%	22.50%	13.33%	13.17%	18.37%
2002	87.48%	91.43%	37.36%	88.40%	90.66%	73.69%
2003	31.42%	21.17%	14.89%	24.75%	52.41%	73.29%
2004	24.09%	10.23%	19.50%	20.01%	43.26%	63.18%
2005	24.70%	22.18%	20.15%	14.45%	30.12%	32.64%
2006	13.57%	3.34%	8.53%	14.85%	23.00%	26.39%
2007	9.27%	-1.92%	17.52%	25.53%	13.88%	22.96%
2008	14%	-14%	-8%	-95%	35%	36%
	11%	1%	-6%	7%	19%	23%
	12%	15%	63%	19%	9%	0%

Table-5.7: Constructional capital advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	23337	13895	842	1500	7099	N/A
1986	29332.75	15933.75	870.25	1632.25	10894.25	N/A
1995	191241.25	110705.75	1258.25	2947.75	74816.5	N/A
1996	205370.5	120288.75	2594.25	3626.5	78860.25	N/A

1997	234667.5	132088	4483.25	4513.75	93582.5	N/A
1998	262538	143048.5	5865.25	6622.25	107002	10672.75
1999	321192.75	180009.5	7069.5	5601.25	128512.5	15363.25
2000	342065.5	181710	8629.75	6279	145446.75	27181.5
2001	393837.75	188746.75	10136.25	8336	186618.75	31879.5
2002	491589.25	244404.25	13231.75	2510.5	231442.75	40575.5
2003	591193.5	278402.5	14593.5	2908	295289.5	65678.25
2004	656032.75	256158.75	16036.25	4752.25	379085.5	96961
2005	767950	268684.75	16856.5	7007.75	475401	119605.5
2006	900863.75	290949.5	21260.75	7985	580668.5	136610.75
2007	1019326.5	309590.25	24831.75	13935.25	710969.25	157828.25
2008	1181922	340401	31976	15207	794337	183577
2009	1468800.8	398599	33226.25	16196.25	1020779.25	263432.3
2010	1929605	485003	40044.5	19273.75	1335283.75	324849.5

Table-5.8: Growth rate (GR) of constructional capital advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	25.69%	14.67%	3.36%	8.82%	53.46%	N/A
1995	551.97%	594.79%	44.58%	80.59%	586.75%	N/A
1996	7.39%	8.66%	106.18%	23.03%	5.40%	N/A
1997	14.27%	9.81%	72.81%	24.47%	18.67%	N/A
1998	11.88%	8.30%	30.83%	46.71%	14.34%	N/A
1999	22.34%	25.84%	20.53%	-15.42%	20.10%	43.95%
2000	6.50%	0.94%	22.07%	12.10%	13.18%	76.93%
2001	15.14%	3.87%	17.46%	32.76%	28.31%	17.28%
2002	24.82%	29.49%	30.54%	-69.88%	24.02%	27.28%
2003	20.26%	13.91%	10.29%	15.83%	27.59%	61.87%
2004	10.97%	-7.99%	9.89%	63.42%	28.38%	47.63%
2005	17.06%	4.89%	5.11%	47.46%	25.41%	23.35%
2006	17.31%	8.29%	26.13%	13.95%	22.14%	14.22%
2007	13.15%	6.41%	16.80%	74.52%	22.44%	15.53%
2008	16%	10%	29%	9%	12%	16%
2009	24%	17%	4%	7%	29%	43%
2010	31%	22%	21%	19%	31%	23%

Table-5.9: Electricity, gas, water and sanitary services advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	6949	4517	251	158	2021	N/A
1986	7870.75	6078.75	60.75	125	1604.5	N/A
1995	3366	2784.25	2.25	415	164.5	N/A
1996	36417.5	5984	3.5	460.75	18	N/A
1997	2582.5	2407.25	16.25	108	51	N/A
1998	1124.25	700.25	24	236.75	163.25	29
1999	2287.25	1710	14.75	265	297.5	5.25
2000	3190.25	1827.25	132.25	57.75	1173	44
2001	9524.25	3148	11.25	990.5	5374.5	63.5
2002	4768.5	1371.25	18.5	869.25	2509.5	588.75
2003	709.75	372.75	15.5	0	321.5	56.25
2004	195	32.75	18.75	0	143.5	0
2005	480.75	48.25	45.5	0	387	100.75
2006	475.75	5	11.25	0	459.5	5
2007	4747	22.5	15.5	0	1184	4
2008	817	12	0	0	805	13
2009	1644	3.5	0	0	1640.5	242.75
2010	5351.5	5	584	0	4762.5	654

Table-5.10: Growth rate (GR) of electricity, gas, water and sanitary services advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	13.26%	34.57%	-75.80%	-20.89%	-20.61%	N/A
1995	-57.23%	-54.20%	-96.30%	232.00%	-89.75%	N/A
1996	981.92%	114.92%	55.56%	11.02%	-89.06%	N/A
1997	-92.91%	-59.77%	364.29%	-76.56%	183.33%	N/A
1998	-56.47%	-70.91%	47.69%	119.21%	220.10%	N/A
1999	103.45%	144.20%	-38.54%	11.93%	82.24%	-81.90%
2000	39.48%	6.86%	796.61%	-78.21%	294.29%	738.10%
2001	198.54%	72.28%	-91.49%	1615.15%	358.18%	44.32%
2002	-49.93%	-56.44%	64.44%	-12.24%	-53.31%	827.17%
2003	-85.12%	-72.82%	-16.22%	-100.00%	-87.19%	-90.45%
2004	-72.53%	-91.21%	20.97%	N/A	-55.37%	-100.00%

2005	146.54%	47.33%	142.67%	N/A	169.69%	N/A
2006	-1.04%	-89.64%	-75.27%	N/A	18.73%	-95.04%
2007	897.79%	350.00%	37.78%	N/A	157.67%	-20.00%
2008	-83%	-47%	-100%	N/A	-32%	225%
2009	101%	-71%	N/A	N/A	104%	1767%
2010	226%	43%	N/A	N/A	190%	169%

Table-5.11: Transportation & communication advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	14858	7828	3414	1135	2492	N/A
1986	22355	6913.25	3560.5	1532.75	2918.75	N/A
1995	49035.5	22639.75	6809.5	3338.75	16247	N/A
1996	54832.5	24235	5983.5	4036.25	20577.75	N/A
1997	65482.5	30848	6671.75	5608.75	22354	N/A
1998	85821.25	32304.5	19187.75	10388.25	26190.75	11365.75
1999	76233.5	23743	20565.75	8617	23307.75	12002.25
2000	83711.5	25037.75	17935.5	5989.75	34748.5	14735
2001	106050.5	27180.25	22161.75	7903.75	48804.75	14218.25
2002	122527	32801.5	14403.5	11054.5	64267.5	20262.75
2003	121093.25	24995.5	5094.5	9756.75	81246.5	29620.75
2004	118892.75	24891.25	5050.75	8027.25	80923.5	35296.25
2005	139325.75	25569.25	2863.5	11636.25	99256.75	42751
2006	190933.5	24084.5	2035	29746.75	135067.25	49148.75
2007	268338	20132.25	2164.75	74706	171334	49661.75
2008	372294	23621	2066	106757	239851	55528
2009	336166.3	26405.75	2787.25	59059.5	247913.8	75140.25
2010	335288.3	32905.25	3250.5	36814.25	287318.3	88863.5

Table-5.12: Growth rate (GR) of transportation & communication advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	50.46%	-11.69%	4.29%	35.04%	17.12%	N/A
1995	119.35%	227.48%	91.25%	117.83%	456.64%	N/A
1996	11.82%	7.05%	-12.13%	20.89%	26.66%	N/A
1997	19.42%	27.29%	11.50%	38.96%	8.63%	N/A
1998	31.06%	4.72%	187.60%	85.22%	17.16%	N/A
1999	-11.17%	-26.50%	7.18%	-17.05%	-11.01%	5.60%
2000	9.81%	5.45%	-12.79%	-30.49%	49.09%	22.77%
2001	26.69%	8.56%	23.56%	31.95%	40.45%	-3.51%
2002	15.54%	20.68%	-35.01%	39.86%	31.68%	42.51%
2003	-1.17%	-23.80%	-64.63%	-11.74%	26.42%	46.18%
2004	-1.82%	-0.42%	-0.86%	-17.73%	-0.40%	19.16%
2005	17.19%	2.72%	-43.31%	44.96%	22.66%	21.12%
2006	37.04%	-5.81%	-28.93%	155.64%	36.08%	14.97%
2007	40.54%	-16.41%	6.38%	151.14%	26.85%	1.04%
2008	39%	17%	-5%	43%	40%	12%
2009	-10%	12%	35%	-45%	3%	35%
2010	0%	25%	17%	-38%	16%	18%

Table-5.13: Storages advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	7237	955	6067	0	213	N/A
1986	2331	2747.25	6559.5	139.5	313.25	N/A
1995	32082.25	14425.5	15336.75	0	2320	N/A
1996	40777.75	18605.5	17311.75	0	4860.5	N/A
1997	50438.75	22702.75	18831.75	20.5	8883.75	N/A
1998	72353.25	29395.75	31445.25	265	11247.25	3337.5
1999	81277.25	31590	36011	481.25	13181.5	4088.75
2000	102247.25	32225.5	41078	333.25	28610.5	5339.25
2001	99541.75	32077.25	39821.75	513.5	27129.25	4639.5
2002	93110.25	31436.25	43724.75	383.25	17566	5068.75
2003	81313.25	29831.5	42950.75	156.5	8374.5	1806
2004	81790	38321.25	34387.5	207.25	8874	1655.75
2005	73519.75	33327.5	29856.75	79.5	10256	1829.75
2006	84307.75	39883.25	32585.75	1319.75	10519	2966.5

2007	67328.5	34470.75	22390.75	1070.75	9396.25	2834.25
2008	56138	28385	17602	690	9462	1629
2009	59998.75	27653.5	16195.75	884	15265.5	4551
2010	62168.75	19770.25	19849.5	885.5	21663.5	8394.75

Table-5.14: Growth rate (GR) of storages advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	-67.79%	187.67%	8.12%	N/A	47.07%	N/A
1995	1276.33%	425.09%	133.81%	-100.00%	640.62%	N/A
1996	27.10%	28.98%	12.88%	N/A	109.50%	N/A
1997	23.69%	22.02%	8.78%	N/A	82.77%	N/A
1998	43.45%	29.48%	66.98%	1192.68%	26.60%	N/A
1999	12.33%	7.46%	14.52%	81.60%	17.20%	22.51%
2000	25.80%	2.01%	14.07%	-30.75%	117.05%	30.58%
2001	-2.65%	-0.46%	-3.06%	54.09%	-5.18%	-13.11%
2002	-6.46%	-2.00%	9.80%	-25.37%	-35.25%	9.25%
2003	-12.67%	-5.10%	-1.77%	-59.17%	-52.33%	-64.37%
2004	0.59%	28.46%	-19.94%	32.43%	5.96%	-8.32%
2005	-10.11%	-13.03%	-13.18%	-61.64%	15.57%	10.51%
2006	14.67%	19.67%	9.14%	1560.06%	2.56%	62.13%
2007	-20.14%	-13.57%	-31.29%	-18.87%	-10.67%	-4.46%
2008	-17%	-18%	-21%	-36%	1%	-43%
2009	7%	-3%	-8%	28%	61%	179%
2010	4%	-29%	23%	0%	42%	84%

Table-5.15: Trade advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	372079	257423	4655	25817	84183	N/A
1986	399995.5	270467.75	4354.25	29678	95494	N/A
1995	985889.75	489838.5	17932	55414	422715.25	N/A
1996	1108725.75	544134.25	18535.5	77858.75	468197.25	N/A
1997	1216373.75	575518.25	28584.75	84712	527558.75	N/A
1998	1354869.75	630250.25	32482.75	78392.5	613744.25	112359.75
1999	1481910.75	682814.5	37732	60455	700909.25	125237
2000	1770171.75	743164	38919.75	69336.5	918751.5	181826.25

2001	2072694.75	891930.25	43749.75	69744.75	1067270	187226
2002	2450030.5	977654.5	43211	79586.5	1349578.5	231412
2003	2891996	1028228.5	57759.25	97854.75	1708154	394753.25
2004	3186689.75	1066408.75	61717	129774.25	1928789.75	519990
2005	3964948.75	1204556	69343.25	185347.5	2505202	748263.75
2006	4484272.5	1162753	89583.25	228866	3003070.25	860820.75
2007	5048187	1087078.75	126390.25	284124.5	3550595	928218
2008	6508245	1415210	142265	345615	4605167	1149599
2009	7711937	1641885.8	171532	347159.8	5566359.5	1507288.8
2010	10006273.3	2013113	263941.8	400884.5	7328334	2086189

Table-5.16: Growth rate (GR) of Trade advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	7.50%	5.07%	-6.46%	14.96%	13.44%	N/A
1995	146.48%	81.11%	311.83%	86.72%	342.66%	N/A
1996	12.46%	11.08%	3.37%	40.50%	10.76%	N/A
1997	9.71%	5.77%	54.22%	8.80%	12.68%	N/A
1998	11.39%	9.51%	13.64%	-7.46%	16.34%	N/A
1999	9.38%	8.34%	16.16%	-22.88%	14.20%	11.46%
2000	19.45%	8.84%	3.15%	14.69%	31.08%	45.19%
2001	17.09%	20.02%	12.41%	0.59%	16.17%	2.97%
2002	18.21%	9.61%	-1.23%	14.11%	26.45%	23.60%
2003	18.04%	5.17%	33.67%	22.95%	26.57%	70.58%
2004	10.19%	3.71%	6.85%	32.62%	12.92%	31.73%
2005	24.42%	12.95%	12.36%	42.82%	29.88%	43.90%
2006	13.10%	-3.47%	29.19%	23.48%	19.87%	15.04%
2007	12.58%	-6.51%	41.09%	24.14%	18.23%	7.83%
2008	29%	30%	13%	22%	30%	24%
2009	18%	16%	21%	0%	21%	31%
2010	30%	23%	54%	15%	32%	38%

Table-5.17: Miscellaneous advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	31957	21389	56	1958	3552	N/A
1986	43355.5	29953.5	5752.5	2128.75	5519.5	N/A
1995	232143.5	126117.75	24916.5	20260.25	60849	N/A
1996	283712.5	144801.5	33060.25	28255.75	77595.75	N/A
1997	338469	174709	35950.5	37566.25	90243.25	N/A
1998	415938.25	188988.25	43180	61851.75	121918.25	17166.5
1999	556866.75	217580.5	46371.5	108048.5	184868.75	33744.75
2000	633249	240590.5	54019.75	127531.75	211107	39855
2001	922336.5	290555	58795.75	148398	424587.75	109311.25
2002	842490.75	267078.5	43240.75	156727.25	375444.25	110297.5
2003	782625	256999	33024.25	198003.25	299744.75	52139.25
2004	913127.25	293195.75	34508	235033.75	350389.75	56890.25
2005	1027084	327111.75	37898.5	227847.5	434226.25	69593.25
2006	1234439.5	363370	43250.5	241989.75	585826.75	88099.5
2007	1482529.25	309512	57949.25	294065.75	821002.25	153670.25
2008	2015763	313554	76160	401265	1224786	303253
2009	2291744	313475.25	62957.5	441420	1473891.25	360108
2010	3111302.5	375721.25	69811.5	549241.75	2116528	548619.75

Table-5.18: Growth rate (GR) of miscellaneous advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	35.67%	40.04%	10172.32%	8.72%	55.39%	N/A
1995	435.44%	321.05%	333.14%	851.74%	1002.44%	N/A
1996	22.21%	14.81%	32.68%	39.46%	27.52%	N/A
1997	19.30%	20.65%	8.74%	32.95%	16.30%	N/A
1998	22.89%	8.17%	20.11%	64.65%	35.10%	N/A
1999	33.88%	15.13%	7.39%	74.69%	51.63%	96.57%
2000	13.72%	10.58%	16.49%	18.03%	14.19%	18.11%
2001	45.65%	20.77%	8.84%	16.36%	101.12%	174.27%
2002	-8.66%	-8.08%	-26.46%	5.61%	-11.57%	0.90%
2003	-7.11%	-3.77%	-23.63%	26.34%	-20.16%	-52.73%
2004	16.67%	14.08%	4.49%	18.70%	16.90%	9.11%
2005	12.48%	11.57%	9.83%	-3.06%	23.93%	22.33%

2006	20.19%	11.08%	14.12%	6.21%	34.91%	26.59%
2007	20.10%	-14.82%	33.99%	21.52%	40.14%	74.43%
2008	36%	1%	31%	36%	49%	97%
2009	14%	0%	-17%	10%	20%	19%
2010	36%	20%	11%	24%	44%	52%

Table-5.19: Total advances (quarterly average) by all Banks

Year	All banks (in lacs)	NCB	SB	FB	PCB I	IB
1985	1008556	585473	227489	48117	136934	N/A
1986	1084791.5	612542.25	256672.75	60102.75	155472.25	N/A
1995	3320213	1738565.5	583759.5	159688.25	836676	N/A
1996	3791842.25	1983230.5	643378.5	190945	944337	N/A
1997	4200878.75	2241403	689025.5	218310.75	1052139.5	N/A
1998	4848946.25	2472854.75	889639.75	266964.75	1219487	237339
1999	5420932	2724736.25	962230.75	288728	1445237	282948.25
2000	6008979.5	2896105.75	1008421.25	321445.5	1783007	384209.75
2001	6935116	3168293	1059418.75	369276.25	2338128	519430.25
2002	7815971.75	3426916.75	1084007.25	439908.5	2865139.25	642142.75
2003	8596452.5	3576040.25	1021475.5	550607	3453330.25	839190.75
2004	9654332	3746870.75	1050796.75	658816.25	4197848.25	1164686.75
2005	11355979	4070833.5	1075296	754629.25	5454720.25	1608010.25
2006	13147490	4219815	1187805.75	891017.75	6848849	1962970
2007	14988645	4201100.5	1253334	1163945.25	8406713.25	2351369.5
2008	18473219	4437875	1407755	1461081	11166519	3128567
2009	21515224.5	4901102.3	1539422	1451265.8	13638935	4030106.3
2010	26621667.8	5773017.3	1848205	1594266.3	17381179.25	5082444.3

Table-5.20: Growth rate (GR) of Total advances (quarterly average) by all banks

Year	All banks GR	NCB GR	SB GR	FB GR	PCB I	IB
1985	N/A	N/A	N/A	N/A	N/A	N/A
1986	7.56%	4.62%	12.83%	24.91%	13.54%	N/A
1995	206.07%	183.83%	127.43%	165.69%	438.15%	N/A
1996	14.20%	14.07%	10.21%	19.57%	12.87%	N/A
1997	10.79%	13.02%	7.09%	14.33%	11.42%	N/A
1998	15.43%	10.33%	29.12%	22.29%	15.91%	N/A
1999	11.80%	10.19%	8.16%	8.15%	18.51%	19.22%
2000	10.85%	6.29%	4.80%	11.33%	23.37%	35.79%

2001	15.41%	9.40%	5.06%	14.88%	31.13%	35.19%
2002	12.70%	8.16%	2.32%	19.13%	22.54%	23.62%
2003	9.99%	4.35%	-5.77%	25.16%	20.53%	30.69%
2004	12.31%	4.78%	2.87%	19.65%	21.56%	38.79%
2005	17.63%	8.65%	2.33%	14.54%	29.94%	38.06%
2006	15.78%	3.66%	10.46%	18.07%	25.56%	22.07%
2007	14.00%	-0.44%	5.52%	30.63%	22.75%	19.79%
2008	23%	6%	12%	26%	33%	33%
2009	16%	10%	9%	-1%	22%	29%
2010	24%	18%	20%	10%	27%	26%

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Abstract: Credit risk is simply defined as the probability that a borrower or counterparty will fail to meet its obligations in accordance with the agreed terms and conditions. The primary factor determining the quality of the bank's credit portfolio is the ability of each borrower to honor, on timely basis, all credit commitments made to the bank. While assessing a credit proposal more emphasis shall be given on repayment potential of loans out of funds generated from borrower's business (cash flow) instead of realization potential of underlying securities. A formal evaluation of borrower's financial health and ability to repay debt obligation is called credit rating which helps the bank to grade the concerned customer. Risk identified through credit rating/risk grading is quantified for better understanding and taking appropriate mitigating technique. As per recommendation of the financial sector reform project (FSRP), Bangladesh Bank made it mandatory for the banks to conduct a "credit risk grading (CRG)" in the prescribed format before sanction of a loan which is still in force. Later, Bangladesh Bank instructed all commercial banks to develop its own credit risk grading system via its guidelines on credit risk management. This paper focuses credit risk management strategies of Prime Bank Limited.

Keywords: Credit risk, credit risk grading, credit pricing, LRA.
JEL classification: D80, G12, G13.

1.1 Introduction

Risk is inherent in all types of business. However, for banks and financial institutions credit risk is considered to be the most challenging and multifarious. Though banks and financial institutions have been facing difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio management or lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparty.

Credit risk is simply defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with the agreed terms and conditions. In other words, it is the loss associated with degradation in the credit quality of the borrowers or counterparties. In a bank's portfolio, losses stem from outright default due to the inability or unwillingness of the customer or counterparty to meet commitments in relation to lending, trading, settlement and other financial transactions. Alternatively, losses result from reduction in portfolio value arising from actual or perceived deterioration in credit quality. Credit risk emanates from a bank's on and off balance sheet dealings with an individual, corporate, bank, financial institution or a sovereign. Credit risk may take the following forms:

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- In the case of direct lending, principal and/or interest may not be repaid;
- With regard to guarantees or letters of credit, funds may not be forthcoming from the constituents upon crystallization of the liability
- For treasury operations, the payment or series of payments due from the counter parties under the respective contracts may not be forthcoming
- In the case of security trading business, funds/securities settlement may not be effected
- In the case of cross border exposure, the availability and free transfer of foreign currency funds may either cease or restrictions may be imposed by the sovereign.

Credit risk management needs to be a robust process that enables a bank to proactively manage its loan portfolio in order to minimize losses and earns an acceptable level of return for stakeholders. Given the fast changing dynamic global economy and the increasing pressure of globalization, liberalization, consolidation and disintermediation, it is essential that prime bank has a strong credit risk management policy and procedures that are sensitive and responsive to these changes. To provide a broad guideline for the credit operation towards efficient management of the credit portfolio of the bank, a clearly defined, well-planned, comprehensive and appropriate credit risk management policy is a pre-requisite.

1.2 Objectives of the Study

The main objectives of this study are (a) discussing an appropriate credit risk analysis environment, (b) setting up a sound credit approval process, (c) maintaining an appropriate credit administration and monitoring process and (d) ensuring adequate controls over credit risk.

1.3 Literature review

To address the credit risks, banks and other financial intermediaries should focus on the probability of default of the borrowers. There are several models available to analyze credit risks, some of which are qualitative models and some are quantitative models. Qualitative models indicate borrower specific factors and market specific factors (Saunders & Cornett 2006). Credit scoring models are also used to sort the borrowers according to their probability of default. Credit scoring models include linear probability model, logit model, and linear discriminant model. With the linear probability model, the repayment pattern of previous/old loans can be analyzed by using past data. This model finds out expected probability of default of a loan, which can be symbolized as:

$$\mathrm{PD_i} = \sum_{j=1}^{n} \beta_j X_{ij} + error$$

Here, β_j indicates the influence of j^{th} variable to explicate the past repayment experience. X_{ij} indicates causal variables, which include quantitative information regarding i^{th} borrower (Saunders & Cornett 2006). Under this model, the probability of default can lie beyond the interval 0 to 1, which is its major weakness. This weakness has been overcome by using logit model, which can be symbolized as:

$$P(PD_i) = \frac{1}{1+e^{-PD_i}}$$

However, E.I. Altman provided discriminant analysis model for analysis default risk classification of the borrower, which is:

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

Where X_1 = working capital/total assets, X_2=Retained earnings/total assets, X_3=EBIT/total assets, X_4=Market value of equity/book value of long-term debt, X_5=Sales/total assets. The higher value of Z indicates lower default risk classification of the client (borrower).

1.4 Methodology

In this exploratory study, mainly secondary data has been used to analyze and interpret information in order to comprehend the variable of interest. Information regarding the overview of the organization and its operations has been acquired from the websites, policy documents and other published materials restricted for internal use. Information has also been gathered from the corporate credit and retail credit divisions of the branch and head office of Prime Bank Limited.

2. General Credit Principle

2.1 Loan to deposit ratio: Loans and advances shall normally be financed from customers deposit and sometimes from capital fund of the bank. However, it will be ensured that loan-deposit ratio should not exceed 86% at any particular point of time. Usually loans and advances shall not be extended out of temporary fund or borrowing from money market.

2.2 Credit quality: Credit facilities shall be allowed in a manner so that credit expansion goes on ensuring optimum asset quality i.e. Bank's standard of excellence shall not be compromised. Credit facilities will be extended to customers who will complement such standards.

2.3 Compliance: All credit extension must comply with the requirements of bank's memorandum and articles of association, banking company act 1991 as amended from time to time, Bangladesh Bank's instruction circulars, guidelines and other applicable laws, rules and regulations, bank's credit risk management credit operational manual and all relevant circulars in force. The officer originating a credit proposal shall specifically declare that it complies with all above mentioned rules, regulations, policy etc.

2.4 Deviation: Any deviation from the internal policy of the bank must be justified and well documented especially all credit assessment form shall invariably include the deviations from the policy, if any. However, no external regulations shall be compromised.

2.5 Return: Credit operation of the bank should contribute at optimum level within the defined risk limitation. In other words, credit facilities should be extended in such a manner that each deal becomes a profitable one so that bank can achieve growth target and superior return on capital. Besides, credit extension shall focus on the development

and enhancement of customer's relationship and shall be measured on the basis of the total yield for each relationship with a customer.

2.6 Repayment capacity: Credit facilities will be extended to those customers who can make best use of them, thus helping maximize the bank's profit as well as economic growth of the country. To ensure achievement of this objective, lending decision will be based mainly on the borrower's ability to repay.

2.7 Diversification: The portfolio shall always be well diversified with respect to sector, industry, geographical region, maturity, size, economic purpose etc. Concentration of credit shall be carefully avoided to minimize risk.

2.8 Proper staffing: Proper credit assessment is complex and requires high level of numerical as well as analytical ability of the concerned officer. To ensure effective understanding of the concept and thus to make the overall credit portfolio of the bank healthy, proper staffing shall be made through placement of qualified officials having appropriate background, right aptitude, formal training in credit risk management, familiarization with bank's credit culture and required experience as well.

2.9 Name lending: The bank shall carefully avoid name lending. Credit facility shall be allowed absolutely on business consideration after conducting due diligence. No credit facility shall be allowed simply considering the name and fame of the key person or corporate image of the borrowing company. In all cases, viability of business, credit requirement, securities offered, cash flow and risk level will be professionally analyzed.

2.10 Single customer exposure limit: Prime bank will always comply with the prevailing banking regulation regarding single customer exposure limit set by Bangladesh Bank from time to time. As per prevailing regulation, bank will take maximum exposure (outstanding at point of time) on a single customer (individual, enterprise, company, corporate, organization, group) for the amount not exceeding 35% of bank's total capital subject to the condition that the maximum outstanding against funded facilities does not exceed 15% of the total capital. However, for single customer of the export sector maximum exposure limit shall be 50% of the total capital subject to the condition total funded facility shall not exceed 15% of the total capital of the bank at any point of time.

2.11 Large loans: Credit facility to a single customer (individual, enterprise, company, corporate, organization, group) shall be treated as large loan if total outstanding amount against the limit at a particular point of time equals or exceeds 10% of the total capital of the bank. Prime bank's total large loan portfolio exposure shall not exceed 56% of the total outstanding loans and advances at any point of time.

2.12 Security: Security taken against credit facilities shall be properly valued in accordance with the laws of the country. An appropriate margin of security will be taken to reflect such factors as the disposal costs or potential price movements of the underlying assets.

2.13 Product parameter: Four factors which affect loans are size, tenor, security and general covenant.

- **Maximum size:** maximum size of any funded credit facility to a single customer shall at best be 10% of the total capital of the bank provided that single customer

exposure limit and other relevant rules as set in different chapters of this policy are complied with. Maximum size of any non-funded credit facility shall at best be 35% of total capital and 50% of the total capital of the bank for the non-export sector customers and export sector customers respectively provided that single customer exposure limit and other relevant rules as set in different chapters of this policy are complied with. However, size of any credit limit in each case shall be fixed after proper assessment of genuine credit requirement of the customer within the maximum allowable limit.

- **Maximum tenor:** maximum tenor for any continuous loan shall be 1 (one) year which is renewable at maturity or within the validity period upon satisfactory performance of the customer. Period of any term loan shall be fixed on case to case basis considering repayment capacity, projected cash flow etc.
- **Security:** bank will try to have as much security coverage as possible against each and every credit facility sanctioned to the customers. Security requirement will be determined on case to case basis based on customer's business strength and the level of risk bank is undertaking. However, bank will always prefer to have security equivalent to 1.25 times of the total funded limit except for the following products: sod (fo), sod (wo), sod (em), sod (edf), sod (ci), fdbp, idbp, bid bond. Security may be in the following forms: bank deposit, gold / gold ornaments, government bond / sanchayapatra, guarantee given by government or bangladesh bank, bank guarantee, pledgeable goods, land and building, share/stock, machinery and equipment, charge on the fixed and floating asset, paripassu charge on fixed and floating assets, corporate guarantee of another company backed by board resolution, personal guarantee, bills or receivables, ownership of vehicles / assets, life insurance policy, post dated cheque, trust receipt, others as deemed acceptable by the approving authority.
- **General covenants:** while sanctioning credit facility, bank will set some covenants. Some of the covenants will be general and others will be specific to a particular credit facility and/or customer. General covenants may be as follows:
    - Ownership structure of the borrower shall not be changed without prior approval of the bank.
    - Current ratio as mentioned in the credit application/sanction term shall be maintained.
    - The customer shall not borrow from any other source without prior approval of the bank.
    - The customer shall not go for expansion without consent of the bank.
    - The customer shall not withdraw profit/declare dividend without consent of the bank.
    - The customer shall submit financial statements within 30 days after year end.
    - Other covenants as set by the sanctioning authority.

2.14 Pricing Credit Facility

2.14.1 Credit pricing: Credit facilities to the customer are the prime source of the bank's income. More specifically, interest from loans accounts the lion share of the total revenue of the bank.

2.14.2 Type of rates: Usually, bank will charge fixed interest rate which will be subject to changes by the management. In this respect, all loan contracts will contain a provision to the effect that rate of interest is subject to changes by the management. Interest rate will be revised as and when a significant fluctuation occurs in the cost of fund of the bank due to volatility of interest rate in the market. For fixed interest rate, the board of directors will fix a band for a particular sector/industry/product. Customers will be allowed a fixed rate within that band. Any deviation from the approved interest rate band will be mentioned in the credit assessment form with proper justification. The managing director may sanction a credit facility at a rate within the band. However, other executives will exercise their delegated authority to sanction credit facility at the highest rate of the approved band.

2.14.3 Revision of rates: The management of the bank will continuously monitor interest rate situation in the market and discuss the same in the asset liability management committee (ALCO) meeting at least once in a month. As per ALCO, the management of the bank may approach the board of directors to revise rate of interest, commission, charges etc.

2.14.4 Prevailing interest rates: Since last revision of interest rate in prime bank, a lot of changes have taken place in the banking sector especially the cost of deposit is increasing day by day due to volatile money market. To match the increased cost of fund with the yield on advances, the lending rates of the bank was lastly revised by the executive committee of the board. The revised lending rates are

Table 1: interest rates of different loan categories

No.	Nature of loan/sector	Interest rate band (p.a)	Mid rate
1.	Agricultural credit	10.00 to 13.00%	11.50%
2.	Term loan/project loan	10.00 to 13.00%	11.50%
3.	Working capital loan	10.00 to 13.00%	11.50%
4.	Pre-shipment export credit	7.00%	-
5.	Commercial lending (CC, LIM, LTR, IBP etc.)	10.00 to 13.00%	13.50%
6.	Small/cottage and SME scheme	15.00 to 18.00%	16.50%
7.	Other special program (other than commercial)		
8.	Others	13.00 to 16.00%	14.50%
9.	Loan against deposits (FDR, MBDR, CSS etc) maintained with our bank	2.00 to 3.50% above the respective deposit rate	-
10.	Loan against deposits (FDR, MBDR, CSS etc) maintained with other bank	13.00 to 16.00%	14.50%
11.	Loan against share	14.00 to 16.00%	15.00%
12.	Housing loan	10.00 to 13.00%	11.50%
13.	Consumer credit scheme	15.00 to 18.00%	16.50%
14.	Loan to NBFIS	13.00 to 16.00%	14.50%

Apart from the above, interest rate for the prime customers (having excellent performance record, resilience, minimum risk and good earning prospect from their non-funded business) may be 9.00 to 12.00% p.a.

3. Credit Risk Assessment

3.1 Risk assessment: The primary factor determining the quality of the bank's credit portfolio is the ability of each borrower to honor, on timely basis, all credit commitments

made to the bank. This must be accurately determined by the authorized credit officers/ executives prior to approval. Therefore a thorough credit risk assessment shall be conducted prior to the sanction of any credit facilities. While assessing a credit proposal more emphasis shall be given on repayment potential of loans out of funds generated from borrower's business (cash flow) instead of realization potential of underlying securities.

3.2 Assessment frequency: A comprehensive credit assessment (due diligence) shall be conducted before sanction of any loan. Thereafter, it will be done annually for all types of credit facilities i.e. Demand loan, continuous loan and term loan.

3.3 Assessment documentation: The result of the credit assessment shall have to be presented in the credit assessment form enclosed in annexure - 2. Initially, it will be originated by the relationship officer of the branch and reassessed in corporate banking division and finally in credit risk management unit of credit division. All evidences of credit assessment have to be filed properly in the respective credit file.

3.4 Know your customer (kyc) policy: Bank's kyc policy applicable for depositors shall also be applicable for borrowing customers. In addition, before sanctioning any credit facility the concerned relationship officer must physically visit the business premises of the customer, talk with important personalities of the locality, collect information on the borrower from his/her existing banker, if any and summarize all these information in the pre-sanction inspection report.

3.5 Accountability: The relationship manager (presently head of branch) shall be the owner of the customer relationship and be held responsible to ensure the accuracy of the entire credit application/assessment form submitted for approval. He/she will be responsible for conducting due diligence on the borrower, principals and guarantors.

3.6 Filling up credit risk assessment: Credit assessment form must be filled in with accurate information in full. No field in the assessment form should be erased or overlooked. If information is not available, concerned field should be filled in with "information not available" with proper justification.

3.7 Repayment source: Repayment source of the borrower is to be validated in the credit assessment form by cash flow and other financial analysis. For such analysis, at least three years financials are to be reviewed. Loan amount and tenor must commensurate with the repayment capacity of the borrower.

3.8 Credit requirement: Credit requirement of the borrower must be assessed properly. The relationship officer will apply prudence to find out actual credit requirement of the borrower and place his/her findings in the credit assessment form.

3.9 Risk mitigation factor: Risks inherent in a credit proposal shall have to be identified and appropriate mitigating factors should be applied. These are to be summarized in the credit assessment form.

3.10 Collateral: Collateral offered against a credit facility shall properly be valued and verified by the concerned relationship officer and/or relationship manager and revalued and re-verified annually in the subsequent period(s). In addition to the valuation of the relationship officer/manager, the same collateral must be valued and verified by an enlisted surveyor of the bank if the total credit facility to the concerned customer exceeds

Tk.25.00 lac (TK.Twenty-five lac). Any valuation of collateral must be supported by the photograph and site map, where applicable.

4. Credit Risk Grading

4.1 Basic framework: As per recommendation of the financial sector reform project (FSRP), Bangladesh Bank made it mandatory for the banks to conduct a "credit risk grading (CRG)" in the prescribed format before sanction of a loan which is still in force. Later, Bangladesh Bank instructed all commercial banks to develop its own credit risk grading system via its guidelines on credit risk management. In the said guideline, Bangladesh Bank provided a sample risk grading model and advised banks to design their own model in line with that one.

4.2 Prime Bank's risk grading framework: All credit proposals must be supported by a comprehensive risk analysis. It will encompass the following three things: (a) lending risk analysis (LRA), (b) risk grading scorecard and (c) risk grading. No proposal can be put up for approval unless there has been a complete written analysis subject to the condition that LRA will be conducted where it is applicable as per Bangladesh Bank guideline. It is the absolute responsibility of the proposal originating officer to conduct comprehensive risk analysis and affix its result e.g risk grading score, risk grade etc in the proposal. He/she will also ensure that all necessary documents/papers/information in support of the proposed risk grading are annexed with the proposal before the facility request is sent to the competent approval authority.

- **Lending risk analysis (LRA):** lending risk analysis will be conducted for the credit facilities of Tk.50 lac or above in the prescribed form. The lending risk analysis tool concentrates on analysis of both the business risk and security risk. The important part of this analysis is the assessment of risk of failure to repay which deals with the overall lending risk composed of the business risks and security risks (i) suppliers risk, (ii) sales risk, (iii) performance risk, (iv) resilience risk, (v) management competence risk, (vi) management integrity risk, (vii) security cover risk and (viii) security control risk. The overall matrix provides four kinds of lending risk for decision makers i.e. (i) good, (ii) acceptable, (iii) marginal and (iv) poor. Prime bank will not approve any credit facility having overall risk at "marginal" or "poor" level without proper justification except for renewal of existing facilities under compelling circumstances.
- **Risk grading scorecard:** as per instruction of Bangladesh Bank, Prime Bank Ltd. has developed risk grading scorecard which will be used to find out rating of all credit facilities and/or customers of the bank except the loans under retail credit division. The score of the risk grading scorecard will be weighted one. There are 10 (ten) rating criteria and separate parameters have been set to measure borrower's position against each criterion. After analyzing borrower's financials or other relevant documents, the relationship officer will first find out the points the borrower earns against each criterion based on the parameters set and then multiply the points obtained by the relevant risk weight which will produce weighted score. A snapshot of criteria and weight assigned to each criterion is as follows:

Table 2: Criteria and weight of the loans

Criteria	Weight (%)
Gearing	15
Liquidity	10
Profitability	15
Account conduct	10
Business outlook	10
Management/key person	15
Age of business	5
Size of business	5
Personal banking relationship	5
Security	10

The relationship officer of the branch will prepare risk grading scorecard in case of new proposal, renewal and/or enhancement of existing facility, any deterioration in the borrower's business position, any breach of contract by the borrower or as and when he/she feel it necessary. In addition, aggregate weighted score of the customer is to be affixed in the relevant field of the credit assessment sheet.

- **Risk grading:** after preparation of risk grading scorecard, concerned relationship officer will assign risk grade to the customer within the following credit risk grading model:

Table 3: credit risk grading model

Risk grade	Letter grade	Numeric grade	Definition
Superior – low risk	Aaa	1	Facilities are fully secured by cash deposits, government bonds or a counter guarantee from a top tier international bank. All security documentation are in place.
Good – satisfactory risk	Aa	2	The repayment capacity of the borrower is strong. The borrower should have excellent liquidity and low leverage. The company should demonstrate consistently strong earnings and cash flow and have an unblemished track record. All security documentation should be in place. Aggregate score of 95 or greater based on the risk grade scorecard.
Acceptable – fair risk	A	3	Adequate financial condition though may not be able to sustain any major or continued setbacks. These borrowers are not as strong as grade 2 borrowers, but should still demonstrate consistent earnings, cash flow and have a good track record. A borrower should not be graded better than 3 if realistic audited financial statements are not received. These assets would normally be secured by acceptable collateral (1st charge over stocks / debtors / equipment / property). Borrowers should have adequate liquidity, cash flow and earnings. An aggregate score of 75-94 based on the risk grade scorecard.
Marginal - watch list	B+	4	Grade 4 assets warrant greater attention due to conditions affecting the borrower, the industry or the economic environment. These borrowers have an above average risk due to strained liquidity, higher than normal leverage, thin cash flow and/or inconsistent earnings. Facilities should be downgraded to 4 if the borrower incurs a loss, loan payments routinely fall past due, account conduct is poor, or other untoward factors are present. An aggregate score of 65-74 based on the risk grade scorecard.

Risk grade	Letter grade	Numeric grade	Definition
Special mention	B	5	Grade 5 assets have potential weaknesses that deserve management's close attention. If left uncorrected, these weaknesses may result in a deterioration of the repayment prospects of the borrower. Facilities should be downgraded to 5 if sustained deterioration in financial condition is noted (consecutive losses, negative net worth, excessive leverage), if loan payments remain past due for 30-60 days, or if a significant petition or claim is lodged against the borrower. Full repayment of facilities is still expected and interest can still be taken into profits. An aggregate score of 55-64 based on the risk grade scorecard.
Substandard	C	6	Financial condition is weak and capacity or inclination to repay is in doubt. These weaknesses jeopardize the full settlement of loans. Loans should be downgraded to 6 if loan payments remain past due for 60-90 days, if the customer intends to create a lender group for debt restructuring purposes, the operation has ceased trading or any indication suggesting the winding up or closure of the borrower is discovered. Not yet considered non-performing as the correction of the deficiencies may result in an improved condition, and interest can still be taken into profits. An aggregate score of 45-54 based on the risk grade scorecard.
Doubtful and bad (non-performing)	D	7	Full repayment of principal and interest is unlikely and the possibility of loss is extremely high. However, due to specifically identifiable pending factors, such as litigation, liquidation procedures or capital injection, the asset is not yet classified as loss. Assets should be downgraded to 7 if loan payments remain past due in excess of 90 days, and interest income should be taken into suspense (non-accrual). Loan loss provisions must be raised against the estimated unrealisable amount of all facilities. The adequacy of provisions must be reviewed at least quarterly on all non-performing loans, and the bank should pursue legal options to enforce security to obtain repayment or negotiate an appropriate loan rescheduling. In all cases, the requirements of bangladesh bank in cib reporting, loan rescheduling and provisioning must be followed. An aggregate score of 35-44 based on the risk grade scorecard
Loss (non-performing)	E	8	Assets graded 8 are long outstanding with no progress in obtaining repayment (in excess of 180 days past due) or in the late stages of wind up/liquidation. The prospect of recovery is poor and legal options have been pursued. The proceeds expected from the liquidation or realization of security may be awaited. The continuance of the loan as a bankable asset is not warranted, and the anticipated loss should have been provided for. This classification reflects that it is not practical or desirable to defer writing off this basically worthless asset even though partial recovery may be effected in the future. Bangladesh bank guidelines for timely write off of bad loans must be adhered to. An aggregate score of 35 or less based on the risk grade scorecard

The relationship officer will insert the risk grade of the customer in the concerned field along with risk grading score and forward the same through proper channel to the credit risk management unit for approval.

4.3 Subjective grading

The more conservative risk grade (higher) should be applied if there is a difference between the personal judgment and risk grading scorecard result and credit risk grading model. This will remain at the absolute discretion of the concerned relationship officer(s) of the branch or corporate banking division, head office and credit officer of the branch or credit risk management unit, head office.

4.4 Downgrading

The relationship officer of particular customer shall continuously monitor the customer and bear the responsibility of rating/grading surveillance. If any deterioration in risk, whatever may be the reason, is noted or adverse information is received, the relationship officer will propose change(s) in the risk grading of the customer and prepare early alert report and forward the same to the credit risk management unit, credit division for approval. Changes in the risk grade will be in effect only when it is approved by the credit risk management unit, credit division. Once a credit facility/customer is downgraded to a lower grade, it will not be postponed until the next annual review process. In case of downgrading, credit facility to the customer may be immediately changed/restructured, if possible.

4.5 External Rating

At least top twenty five clients of the bank may preferably be rated by an outside credit rating agency.

4.6 System Review

Proper application of the risk grading scorecard and risk grading model in credit operation shall be reviewed at least once in a year. If change is required, it will be done at the year-end. Furthermore, accuracy and consistency of the concerned officers/executives will be reviewed annually.

4.7 Credit approval process

Credit approval process starts with collection of credit application by the customer and ends with issuance of a written sanction letter by the bank. Credit approval process in the bank shall be guided by some basic principles. These are as follows:

- **Step-1:** a potential customer collects prescribed credit application form (annexure - 1) from the relationship officer of branch/regional corporate banking department/corporate banking division, head office/web address of the bank. Later, he/she submits the filled in credit application form along with necessary papers and documents
- **Step-2:** the relationship officer scrutinizes the credit application form (annexure - 1) and other documents submitted by the customer and make a preliminary assessment on creditworthiness of the potential borrower. He/she collects further information from the customer if it is felt necessary. If he/she finds the proposal not credential, he/she sends a refusal letter to the customer immediately. On the other hand, if he/she finds it acceptable, he/she forwards the application to the concerned relationship manager

- **Step-3:** the relationship manager, singly or jointly with relationship officer, visit the customer's business premise and try to acquire proper understanding about the business position, actual credit requirement, repayment capacity etc. Besides, he/she negotiates with the customer about the structure of the proposed credit facility. Apart from this he/she assesses the value of the security to be offered and prepares valuation report. Finally, the relationship manager summarizes all these information in the pre-sanction inspection report/call report/visit report in the bank's prescribed format in which he/she recommends for some specific credit facility for the customer
- **Step-4:** the relationship manager sends the pre-sanction inspection report to the corporate banking division, head office or to the regional corporate banking department, if any. The head of corporate banking division/regional corporate banking department assesses the credit proposal. He/she might contact with the relationship manager or directly to the customer for any query. Finally, if he/she decides to refuse the proposal or to proceed further with the proposal and communicates his /her decision to the relationship manager
- **Step-5:** if the head of corporate banking division/regional corporate banking department refuses, the relationship manager sends a refusal letter to the customer. If he/she is positive, the relationship officer collects duly filled in CIB inquiry form from the customer and submits it to the credit information bureau of Bangladesh bank for latest CIB report through credit administration department, head office. Everything may stop here if CIB report shows that the customer has classified liability in its name and/or in the name of its sister concern(s). In that case, the customer is regretted accordingly
- **Step-6:** meanwhile, the relationship officer rates the customer as per risk grading system of the bank. Finally, the relationship manager originates a formal credit proposal in which the head of corporate banking division affixes his/her recommendation regarding the proposal
- **Step-7:** the head of corporate banking division, head office then forwards the proposal to the credit risk management department, credit division along with necessary papers. The concerned credit officer conducts in-depth credit analysis (due diligence) and affixes his/her comments/observations/findings
- **Step-8:** the credit officer places the proposal along with his/her comments/observations/findings before the head of credit/head office credit committee. The head of credit may contact with the head of corporate banking for his/her queries. He/she may also express his/her reservation on a particular issue/risk and ask the head of corporate banking to clarify his/her position and/or risk minimization technique(s). Finally, he might decline the proposal. And, if he/she is fully satisfied he/she may approve the facility if it is within his/her delegated authority. If it is beyond his/her delegated authority, he /she would recommend the proposal to the managing director
- **Step-9:** the managing director may decline the proposal if he/she is not satisfied about the proposal. If he/she is satisfied and if it is within his/her delegated power, he/she approves the proposal. If the proposal exceeds his/her delegated authority, he/she recommends it to the executive committee of the board of directors, which has the supreme authority to sanction any loan

- **Step-10**: if the facility is approved (whoever is the approval authority), the credit risk management department of credit division issues sanction letter to the corporate banking division/branch along with a documentation check list which clearly spells out what are the documentation formalities required to be completed before disbursement. A copy is sent to credit administration department, credit division
- **Step-11:** the corporate banking division/branch then issues sanction letter to the customer in line with the letter of credit risk management department and requests the customer to complete documentation formalities

4.8 Disbursement process

Disbursement of a loan sanctioned by the competent authority shall be made after completion of the required documentation formalities and after obtaining disbursement authority. The disbursement process will be guided some basic principles. These are:

- **Separate authority:** credit approval and disbursement authority shall be separate from each other. Credit risk management department will deal with credit approval while credit administration department will deal with disbursement of approved credit facilities
- **Documentation check list:** while issuing sanction letter to the corporate banking division/branch, the credit risk management department will enclose therewith a documentation check list in which credit risk management department will specify documentation formalities to be completed to secure the credit facility.
- **Signing documentation check list:** after completion of documentation formalities as per checklist, the branch will submit the same to the credit administration department, head office, duly signed by the head of the branch and countersigned by the officer of the credit administration department posted at the branch seeking disbursement authority. The credit administration officer shall countersign the checklist after verifying the proper execution of documents/security/collaterals.
- **Disbursement authority:** all the approved credit facilities except the following ones mentioned in following paragraph shall be disbursed only after having disbursement authority from the credit administration department, head office. If there is any inadequacy in documentation, the documentation officer will specifically mention it in the documentation check list / certificate of documentation and concern branch manager will mention reason behind the inadequacy, expected date of completion of the same. In this case, the inadequacy must be approved by the head of credit and/or the managing director and after getting approval, credit administration department will issue disbursement authority to the branch manager.
- **File maintenance:** separate and independent file(s) for each customer shall be maintained by the branch, corporate banking division, credit risk management department, credit administration department and recovery department (where applicable) of head office. File(s) will be under the custody of the concerned relationship officer or credit officer or account manager (as the case may be) who is handling the customer within his/her division/department. An officer who does not handle the file will have to take written permission from the higher authority to have access to it.

4.9 Credit monitoring process: Credit monitoring process starts immediately after disbursement of the facility. Steps involved in monitoring process are as follows:

- **Step-1:** the customer starts repayment of the loan. Simultaneously, branch relationship officer starts monitoring the loan on on-site basis. If he/she finds any deviation to the terms and conditions of the sanction or borrowers financial health, he/she prepares an early alert report and sends it to the corporate banking division, head office.
- **Step-2:** simultaneously, credit administration department monitors the loan on an off-site basis and reports its findings to the credit risk management department. On the other hand, corporate banking division informs the credit risk management department about the customer's position on the basis of early alert report received from relationship officer. It may propose revising the customer's risk grading. Credit risk management department ultimately decides on the customer and directs corporate banking division to take necessary action.
- **Step-3:** the relationship officer regularly reminds the customer as per decision of the credit risk management department about the irregular repayment, if any and/or breach of contract through letter and/or phone call and/or visit in person.

4.10 Analysis of a credit risk *grading*

After taking into account the principles, policy, risks and other factors that affect sanction of a credit / loan, below is a sample of how a credit proposal is done. After getting the required information from the customer regarding what type of loan is needed, the customer net worth statement, financial statements in case of a company for last three years, the stock report, information for acquiring CIB report, etc, the next step to do make the main credit proposal which includes the credit proposal form, the call reports, the financial analysis and credit risk grading, ultimately mainly based on the scorecard of the CRG, the loan is sanctioned. If the score is below 75 then the loan is not given, it is disapproved at the very first staged thus no need to continue further. Below are few samples of credit risk grading based on the financial statements. The grand total of the scorecard is 86 which means the performance of the company is good, the risk level is satisfactory, and the repayment capacity of the borrower is strong. The borrower has excellent liquidity and low leverage and also demonstrates consistently strong earnings and cash flow and has an unblemished track record.

5. Conclusion

Prime bank ltd has a very robust credit risk management process. It is responsive to the market changes and its prompt action ensures smooth operation and efficient management. PBL spends a lot of time and effort in establishing an appropriate credit risk environment, a sound credit approval process, appropriate credit administration and monitoring process and ensures adequate control over credit risk. PBL also emphasis that credit facility should be given on business consideration - viability of business, credit requirement, security offered, cash flow, risk level after doing due diligence and no consideration to be given for name and fame of the key person or corporate image. The credit portfolio of PBL is very diverse, it emphasize on SME and retail loan, focuses on

export finance, emerging sectors such as retail loan, SME credit, RMG and other export, telecommunication and pharmaceutical but at the same time discouraged businesses that increases the risk of the bank to a high extent.

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Appendix
Table: Credit risk grading for a hypothetical (XYZ) Company

Aggregate score – 86.00 - acceptable					
Criteria	Weight	Parameter	Score	Actual parameter	Score obtained
A-1 leverage	**10%**				
A-1.1 debt-equity (x) – times	5%	< 0.25 x	5.00	0.68	**4**
Total liabilities to tangible net worth		0.26× to 0.35 x	4.50		
		0.36× to 0.50 x	4.25		
		0.51× to 0.75 x	4.00		
		0.76× to 1.25 x	3.50		
		1.26× to 2.00 x	3.25		
		2.01× to 2.50 x	3.00		
		2.51× to 2.75 x	2.50		
		> 2.75×	0.00		
A-1.2 debt-total asset (x)-times	5%	< 0.25×	5.00	0.41	**4.25**
Total liability to total assets		0.26× to 0.35 x	4.50		
		0.36× to 0.50 x	4.25		
		0.51× to 0.75 x	4.00		
		0.76× to 1.25 x	3.50		
		1.26× to 2.00 x	3.25		
		2.01× to 2.50 x	3.00		
		2.51× to 2.75 x	2.50		
		> 2.75×	0.00		
A-2 liquidity	**10%**				
A-2.1current ratio (x) – times	5%	> 2.74×	5.00	1.50	**4**
Current assets to current liabilities		2.50× to 2.74 x	4.50		
		2.00× to 2.49 x	4.25		
		1.50× to 1.99 x	4.00		
		1.10× to 1.49 x	3.50		
		0.90× to 1.09 x	3.25		
		0.80× to 0.89 x	3.00		
		0.70× to 0.79 x	2.50		
		< 0.70×	0.00		

Criteria	Weight	Parameter	Score	Actual parameter	Score obtained
A-2.2 quick ratio (x) – times	5%	> 2.00×	5.00	2.20	**5**
Quick assets to current liabilities		1.75× to 2.00 x	4.50		
		1.50× to 1.74 x	4.25		
		1.25× to 1.49 x	4.00		
		1.00× to 1.24 x	3.50		
		0.75× to 0.99 x	3.25		
		0.50× to 0.74 x	3.00		
		0.25× to 0.49 x	2.00		
		Less than 0.25×	0.00		
A-3 profitability	**20%**				
A-3.1 operating profit margin (%)	5%	> 25%	5.00	22.00%	**4.5**
(operating profit/sales) x 100		23% to 25%	4.50		
		20% to 22%	4.00		
		17% to 19%	3.50		
		14% to 16%	3.25		
		11% to 13%	3.00		
		8% to 10%	2.50		
		< 8%	0.00		
A-3.2 net profit margin (%)	5%	> 15.00%	5.00	8.80%	**3.25**
(net profit/sales) x 100		13% to 15%	4.50		
		11% to 12%	4.00		
		9% to 10%	3.50		
		7% to 8%	3.25		
		5% to 6%	3.00		
		3% to 4%	2.50		
		< 3%	0.00		
A-3.3 return on asset	5%	> 30%	5.00	32.80%	**2**
(net profit/total asset) x 100		26% to 30%	4.50		
		22% to 25%	4.00		
		18% to 21%	3.50		
		14% to 17%	3.25		
		8% to 13%	3.00		
		5% to 7%	2.50		
		< 5%	0.00		

A-3.4 return on equity	5%	> 15.00%	5.00	20.00%	**5**
(net profit/total equity) x 100		13% to 15%	4.50		
		11% to 12%	4.00		
		9% to 10%	3.50		
		7% to 8%	3.25		
		5% to 6%	3.00		
		2% to 4%	2.00		
		< 2%	0.00		

Criteria	Weight	Parameter	Score	Actual parameter	Score obtained
A-4 coverage	**10%**				
A-4.1 interest coverage (×) - times	5%	> 2.00×	5.00	6.00	**5**
Earning before interest & tax (ebit)		1.51× to 2.00×	4.00		
		1.25× to 1.50×	3.00		
Interest on debt		1.00× to 1.24×	2.00		
		< 1.00×	0.00		
A-4.2 debt service coverage	5%	> 2.00×	5.00	6.00	**5**
Ebitda/(total interest+cmltd)		1.51× to 2.00×	4.00		
		1.25× to 1.50×	3.00		
		1.00× to 1.24×	2.00		
		< 1.00×	0.00		
Total score- financial risk			**50.00**		**46.00**
B. Business/ industry risk	**18%**				
B-1 size of business (in bdt crore)	4%	> 60.00	4.00	8.02	**2**
Size of the borrower's business measured by the most recent year's total sales. Preferably audited numbers.		30.00 – 59.99	3.50		
		10.00 – 29.99	3.00		
		5.00 - 9.99	2.00		
		2.50 - 4.99	1.00		
		< 2.50	0.00		
B-2 age of business	3%	> 10 years	3.00	6	**2**
Number of years the borrower is engaged in the primary line of business		6 - 10 years	2.00		
		2 - 5 years	1.00		
		< 2 years	0.00		

B-3 business outlook	2%	Favorable	2.00	Favorable	**2**
Critical assesment of medium term prospects of industry, market share and economic factors.		Stable	1.50		
		Slightly uncertain	1.00		
		Cause for concern	0.00		
B-4 raw material availability	2%	Locally available	2.00	Partially import dependent	**1**
		Partially import dependent	1.00		
		Fully import dependent	0.50		
		Scarce	0.00		
B-5 industry growth	3%	Strong (10%+)	3.00	Strong (10%+)	**3**
		Good (>5% - 10%)	2.00		
		Moderate (1%-5%)	1.00		
		No growth (<1%)	0.00		

Criteria	**Weight**	**Parameter**	**Score**	**Actual parameter**	**Score obtained**
B-6 market competition	2%	Dominant player	2.00	Dominant player	**2**
Consider market share, demand supply gap etc.		Moderately competitive	1.00		
		Highly competitive	0.00		
B-7 entry/exit barrier	2%	Difficult	2.00	Average	**1**
(technology, capital, regulation etc)		Average	1.00		
		Easy	0.00		
Total score- business risk			**18.00**		**13.00**
C. Management risk	**12%**				
C-1 experience	5	More than 10 years	5.00	More than 10 years	**5**
Total length of experience of the senior management in the related line of business.		6–10 years	3.00		
		1–5 years	2.00		
		No experience	0.00		

C-2 trackrecord	2	Very good	2.00	Very good	**2**
Reputation, commitment, trackrecrod of onwers in business.		Moderate	1.00		
		Poor	0.50		
		Marginal	0.00		
C-3 second line/succession	3	Ready succession	3.00	Ready succession	**3**
		Succession within 1-2 years	2.00		
		Succession within 2-3 years	1.00		
		Succession in question	0.00		
C-4 team work	2	Very good	2.00	Very good	**2**
		Moderate	1.00		
		Poor	0.50		
		Regular conflict	0.00		
Total score- management risk			**12.00**		**12.00**

Criteria	Weight	Parameter	Score	Actual parameter	Score obtained
D. Security risk	**10%**				
D-1 security coverage (primary)	4%	Fully covered by underlying assets/substantially cash covered	4	Registered hypothecation (1st charge/pari passu charge)	**3**
		Registered hypothecation (1st charge/pari passu charge)	3		
		2nd charge/inferior charge	2		
		Simple hypothecation / negative lien on assets	1		
		No security	0		

D-2 collateral coverage (property location)	4%	R/m on municipal corporation/prime area property	4	R/m on pourashava /semi-urban area property	**3**
		R/m on pourashava/semi-urban area property	3		
		E/m or no property but other plant & machinery as collateral	2		
		Negative lien on collateral	1		
		No collateral	0		
D-3 support (guarantee)	2%	Personal guarantee with high net worth or strong corporate guarantee	2	Personal guarantees or corporate guarantee with average financial strength	**1**
		Personal guarantees or corporate guarantee with average financial strength	1		
		No support/guarantee	0		
Total score- security risk			**10**		**7**
E. Relationship risk 10%	**10%**				
E-1 account conduct	5%	More than 3 years accounts with faultless record	5.00	Less than 3 years accounts with faultless record	**4**
		Less than 3 years accounts with faultless record	4.00		
		Accounts having satisfactory dealings with some late payments.	2.00		
Criteria	**Weight**	**Parameter**	**Score**	**Actual parameter**	**Score obtained**

E-2 utilization of limit	2%	More than 80%	2.00	80%+	**2**
		40% - 60%	1.00		
		Less than 40%	0.00		
E-3 compliance of covenants	2%	Full compliance	2.00	Full compliance	**2**
		Some non-compliance	1.00		
		No compliance	0.00		
E-4 personal deposits	1%	Personal accounts of the key business sponsors/ principals are maintained in the bank, with significant deposits	1.00	No depository relationship	**0**
		No depository relationship	0.00		
Total score- relationship risk			**10.00**		**8.00**
Grand total - all risk			**100.00**		**86.00**

Impact of Remittances in the Bangladesh Economy- A Trend Analysis

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Abstract : Remittances have become increasingly important source of financial flows for developing countries. Migrants' remittances in Bangladesh played a crucial role in the economic development of the country. Bangladesh is a huge labor surplus country. More than 25% of its foreign exchange earning is derived from the remittances of the migrant workers. However, this sector is yet to be efficiently organized. Very recently, initiatives are being taken to re-organize various aspects of the labor migration process involving government, civil society and development partners. The focus on migrants' remittances is justified because certain characteristics of remittance flows such as their sheer volume, growth over time and anti –cyclical in nature tend to indicate that they hold a tremendous promise of external development finance. Remittances can potentially help to promote economic development by providing a mechanism to share risks, reduce poverty and improve equality. In this context, this paper discusses some issues associated with migrants' remittance flows to Bangladesh and also provides some thoughts on how the development process in Bangladesh could be facilitated with proactive policies to further boost such inflows.

Keywords: Migrants, Remittances, Economic Development.

1.1 Introduction

Remittance is playing a significant role for the economic development of developing and Least Developed Countries (LDCs), which have substantial development impact, can be understood from the micro and macro point of view. Bangladesh is a huge labor surplus country and it belongs to the supply side of the global labor market. The flow migrant workers are associated with the growing flow of remittance to Bangladesh. Since the late 1990s, successive governments of Bangladesh realizing the importance of remittance to the economy have taken different macro-economic reforms to encourage official flow of remittances. In recent years the global competition of exporting manpower is increasing. So the demand for skilled and professional personnel is increasing. But Bangladesh is still far behind to export skilled and professional personnel than some other top remittance recipient countries.

The major future challenges that are identified for Bangladesh for harnessing remittances for economic development are lack of skilled and professional personnel, government foreign policy, utilization of remittances in non-productive investment, and regulatory constraint for MFIs/NGOs to transfer remittances and offer diversified savings and credit products to families of migrant. The future growth of Bangladesh will depend on promoting export, sustaining remittances and triggering foreign direct investment. According to a study, it is estimated that the required level of remittances in Fiscal Year (FY) 2020 for consistent 4%, 6% and 8% GDP growth will be US$8.9 billion, US$16.4

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billion, and US$29.9 billion respectively. It is viewed as a very stable source of foreign exchange (Ratha 2005) and even as being counter-cyclical (Esquivel and Huerta–Pineda. 2006). The effect of remittances on the macro-economy of a country has been well documented in the literature. The incoming foreign exchange helps receiving countries to pay import liabilities, improve their balance of payments position, strengthen foreign exchange reserves and finance external debt.

The paper is organized in six sections besides this introduction. Section 2 discusses the review of the literature. Section 3 discusses recent trends in migrants' remittances in Bangladesh. Section 4 presents the macro-economic and micro-economic impact of migrants' remittances on the economic development of Bangladesh. Section 5 highlights some elements of future challenges regarding migrants' remittances, and Section 6 concludes.

1.2 Rationale of the Study

Migrant remittances are a steadily growing external source of capital for developing countries. The importance of remittances of developing countries through migration and their potential in boosting economic growth was already recognized in the beginning of the 1980s. A wide range of issues related to remittances became the subject of political debate, as well as of more in-depth research. There is a bulk of economic literature on the impact of money remittances on the remittance receiving countries. They are less important than FDI, but surpass by far official development assistance and capital market flows. Moreover, remittances are a very stable source of capital. In contrast to FDI and portfolio investment that fell sharply in the last years due to the worldwide recession, international migrant remittances grew further, evidence of an anti-cyclical character. Once we know that the amounts at stake are important and their potential economic impact is significant, it is worth trying to understand the determinants, size and motives and microeconomic macroeconomic consequences of migrant remittances.

1.3 Objectives of the Study

The main objective of the study is to identify the size and destination of remittance flows and their social and economic implication on the Bangladesh economy. The intention of the study is to examine the remittance behavior and its impact as well as to evaluate and recommend measures to improve productive use of migrants' remittances inflow and enhance flow.

The specific objectives of the study are:

- To investigate the pattern of migrants' remittances
- To find out sources and uses of migrants' remittances
- To know about the impact of remittances on economic development of Bangladesh
- To investigate the problems regarding different aspects of migrants' remittances
- To find out the ways for solving these problems
- To indicate some important determinants to raise the amount of migrants' remittances.

1.4 Methodology of the study

This study has two broad areas of enquiry: (a) extent of migrants' remittances flow and its impact on the economy and (b) potentials of migrants' remittances in future on the economic condition of Bangladesh. This requires information from secondary sources such as-various organizations comprising of government institutions, banks (central and commercial), research organizations, remittance sending and remittance receiving persons, migrant workers' associations, Economic Trends and Economic Review, Various book, articles, compilations etc regarding Foreign Remittances, Web site of the Bangladesh Bank, Ministry of Finance, BBS, BMET, IOM etc. Therefore, it is natural that the work would entail secondary data and provide time series data analysis.

Method of data processing:

Macro Analysis: The structure, Trends of Remittances flow and Impact of the Remittances

Statistical Analysis: 1.The Macro-Econometric Model. Functional equations are-

- $Y= C+ I + G + Rm. +Ex.-M.$
- $C= Co+ c\ Yd + e1$
- $Yd= Y-T$
- $I= Io +bY + e2$

2. Time series Analysis

3. Regression Equation

1.5 Limitations of the study

The limitations of the study is summarized below-

- No unavailability of accurate and quality data on remittance and some other economic indicators was the main limitation of this study.
- Unofficial inflow of remittance, which is not included in the official remittance data, was another shortcoming of the analysis of this study.
- Field practice varies with the standard practice that also created problem.

2.1 Review of the Literature

The inflow of remittances and its related issues have long been of interest to economists and policy makers, in particular after the introduction of the Wage Earners' Scheme (WES) in mid-1974. Since then several macro and micro level studies have been published that have served to enrich the literature on remittances. A wide range of issues have been addressed through a number of studies, over the three decades. Three issues that have received particular attention include socio-economic conditions of returnee migrants; the process of migration and the use of remittances at the household level (e.g. see Habibullah (1980), Mahmood(1986, 1990,1991).

The first two issues mostly focus on demographic characteristics of the migrants, as well as education and training received employment and occupational status, reasons for migration, channels of migration, nature of job contract and so forth. The third issue on the uses of remittances is the one that is most directly relevant to our study. The extent to

which remittances will add to the investment resources of the economy largely hinges upon the savings and expenditure patterns of migrant families. Therefore, a close look at the income, savings and expenditures of migrant families is of great significance from the policy point of view.

Expenditure and saving behavior abroad is pivotal in analyzing the recipient household's pattern of use of remittances. A study by Mahmood, (1991) found that more than 75 percent of respondents had a monthly expenditure below Tk. 2000 per month, and more than one third spent less than Tk. 1000 per month while monthly average income was Tk.11000. This clearly shows that the migrants remit more than 80 percent of their earnings abroad and this is reflected in higher incomes of recipient households (also see Mahmud and Osmani, 1980; Habibullah, 1980).

The major factors that have an impact on the pattern and use of remittance incomes include initial socio-economic conditions and demographic characteristics of remittance receiving households, duration of stay abroad, skill level of the migrant, number of migrants from one household etc. A study of Bangladeshi returned migrants from Japan (Mahmood, 1991), shows that ownership of land prior to migration is an important determinant in land repurchase. The quality of living accommodation of a household prior to migration was found to have a negative impact on bank savings. Similarly, marital status of a migrant was negatively related to investment in trade and business.Purchase of land was found to be the single most important use to which overseas remittances were put (Mahmood, 1986; 1991).

This pattern is also influenced by occupational differentials. For almost all items, the higher the level of skills the higher the level of expenditure. Exceptions were found in the case of 'gifts, donations and assistance to relatives', and 'payment of loans and liquidation of debts' (Mahmud, 1991).

For the former an unskilled migrant spent more than a professional and semi professional and for the latter, a semi skilled worker spent more than the professional. Rural households receiving remittances spent much more on consumption, interest payment and festivals than non-receivers. Remittance receivers in urban areas spent more on clothing, food and drink, fuel and lighting than their counterparts in rural areas. The degree of conspicuous consumption out of remittances is also higher for urban households (Habibullah, 1980).

Even though the existing literature is full of rhetoric about the different use of remittances at the micro level, very little has been suggested in terms of more effective use. Again the concept of effective or productive use has not always been clearly articulated. The term 'effective use' or 'productive use' of remittances needs to be clarified. Thus, Mahmood and Osmani, (1980) consider use of remittances to construct or repair houses, purchase of consumer durables and acquisition of land unproductive while Mahmood, (1990) thought the use remittances in these sectors to be productive.

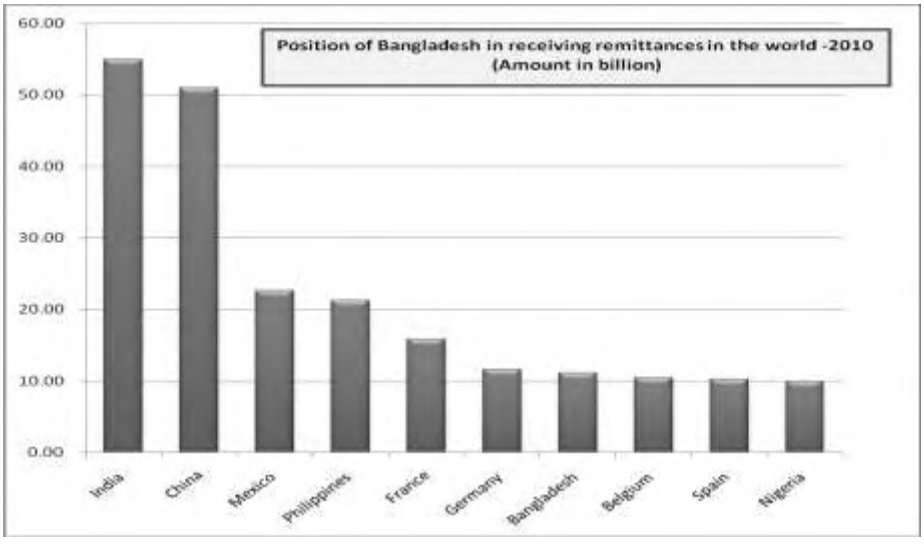
The contribution of remittance to GDP has also grown from a meager 1 percent in 1977-1978 to 5.2 percent in 1982-83. During the 1990s, the ratio hovered around 4 percent. However if one takes into account the unofficial flow of remittances, its contribution to GDP would certainly be much higher so that an increase in remittance by Taka 1 would result in an increase in national income by Tk 3.33 (Murshed 2000).

Remittance is a major source of foreign earnings for any country. Bangladeshi workers whether they are unskilled or semi skilled sends a huge amount of foreign currency in country, sometimes the amount of foreign currency exceed the export earnings from goods and services. The paper tells how to improve the short and long run impact of remittance, import and export on the GDP growth of Bangladesh using the Co integration and Granger Causality in a VECM framework to analyze the relationship. (Haydory Akbar Ahmed, Md. Gazi Salah Uddin, 2009)

3. 1 Trends in migrants' remittances in Bangladesh

Overseas employment and workers' remittances contribute significantly to the economic development of the country through reduction of unemployment and augmenting foreign exchange reserves and income. The recent macroeconomic performance, characterized by varying and often contrasting trends in major indicators, reveal Bangladesh's continued susceptibility to economic vulnerability. So, the massive outflow of Bangladeshis generated significant financial flows, in the form of remittances, which have become a valuable and inexpensive source of foreign exchange available for economic development of the country. The huge increase in outward migration makes Bangladesh as one of the major remittance recipient countries in the world. The following graph shows that in 2010 Bangladesh is the seventh remittance receiving country among the top ten receiving countries in the world.

Figure 1: Position of Bangladesh in receiving remittances in the world -2010

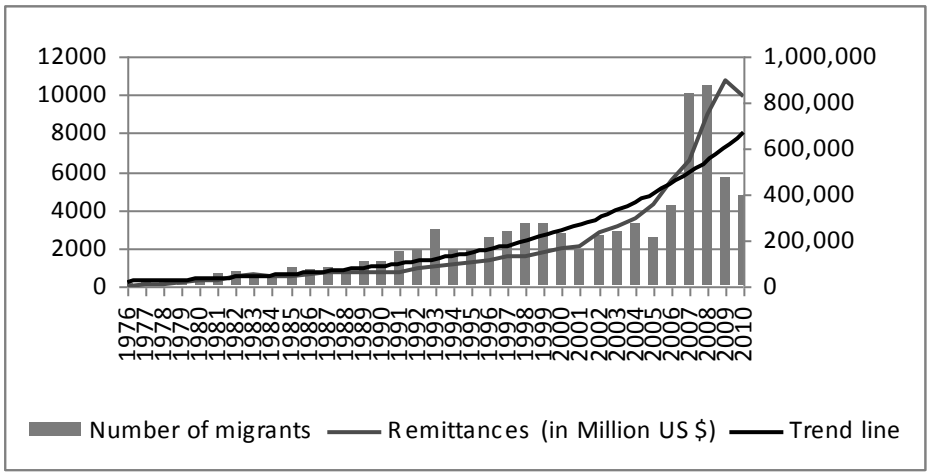


3.2 Nature and volume of remittances

According to official statistics, the inflow of remittances to Bangladesh during the period 1976-2010 totaled Tk. 510417.87 million (US $77466.29 million). The growth of remittance has not always been steady. Remittances climbed to US $ 627.31 Million in 1983 from US $23.71 million in 1976. After a temporary slump, it picked up again from 1985. In 1988 overseas remittances reached US $ 763.90 million. The rate of increase in

remittance inflows as compared to earlier years declined somewhat in more recent years. This is because the demand for Bangladeshi manpower declined as a result of worldwide recession. In addition, many illegal workers were sent back to Bangladesh during this time, e.g. following the East Asian crisis. In the early 2000s, the trend went downward for a while because of the 9/11 incidence in the US and the Iraq War in the Middle East. However, after 2007, the migration rate jumped by more than 60% compared to the previous year.

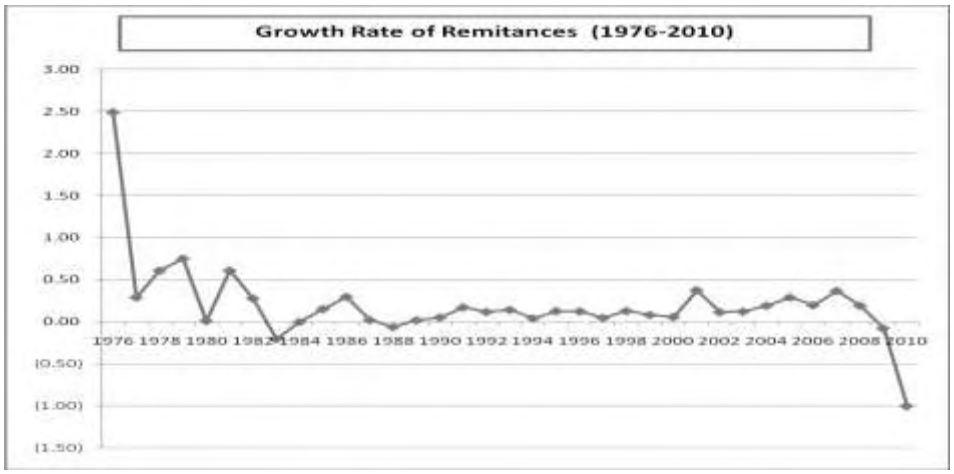
Figure 2: Migrants' Remittances in terms of Dollar and no. of migrants (1976 to 2010)



Source: Constructed on the basis of data from various issues Economic Trends, Bangladesh Bank and BMET website.

From the graph it is observed that total wage earners' remittances increased over the time period from 1976 to 2010. In the second 10 years (1987 – 1997), it has increased by US $ 7190.12 million than first 10 years (1976 – 1986) due to receive additional remittances from Lebanon, Brunei, South Korea, Mauritius and also to the other countries. In the last 10 years, it has increased by US $ 52028.20 million than second 10 years due to receive additional remittances from Jordan, Sudan, UK, Italy, and Japan and also from the other countries. Remittances receive also varies for government change, policies change regarding labor migration, relationship with the other countries, global economic changes, government and policies change of foreign countries etc.

Figure 3: Growth rate of Remittances (FY 1976-2010)



Source: Constructed on the basis of data from various issues Economic Trends, Bangladesh Bank and BMET website.

The outward migration of labor and the remittances that are generated as a result have been a feature of Bangladesh's post liberation history. The earliest official records on remittances indicate that the country received about US$24 million in overseas remittances in 1976. Since then foreign remittance receipts have grown at an exponential rate. But from 2007 the growth rate started to fall due to global economic recession and entail the attention of the Government and the policymakers to further boost up the remittance flows.

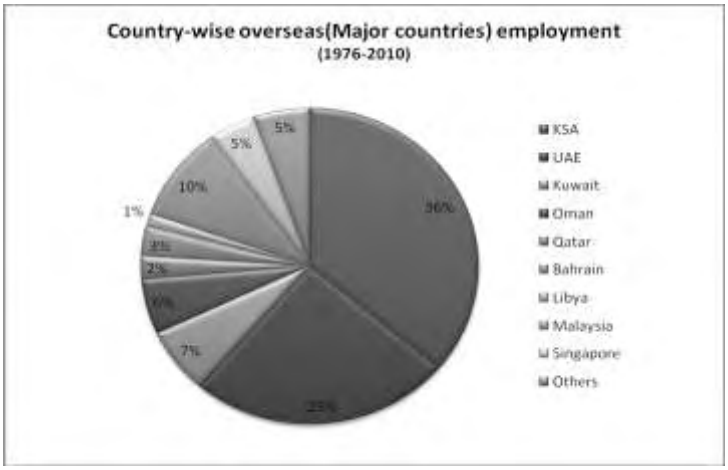
3.3 Major Remittance Sending Countries and Migrants by skill

Overseas migration from Bangladesh may be divided into two categories. An outflow of Bangladeshis to the Western World, mainly to UK, and more recently to the USA and Canada has been going on for a long time. The migrants tend to stay permanently and tend to be skilled and semi skilled workers and professionals. On the other hand the migration boom in the early eighties relates mostly to temporary migration of mostly semi skilled and unskilled laborers to the Middle East. In recent years Malaysia, Korea and Singapore have emerged as important destinations for Bangladeshi migrant workers.

There are three phases of migration in Bangladesh. The first phase was during the period 1978–1989, in which migration was characterized by workers going to Middle East countries. Their total number was about 724,000 workers or about a flow of 52,000 workers per year. The second phase was characterized by the opening of Malaysia and Singapore markets for Bangladeshi workers from 1990 to 2000. As a result, out migration quadrupled to around 205,000 workers per year so that during that period, about 2.3 million workers moved out from Bangladesh. The third phase started in 2001 until 2010, which was characterized by the opening of new markets for Bangladeshis in East European countries, Italy, Korea, and again in Malaysia after a 3-year embargo.

Bangladesh export migrant workers to Middle Eastern and North African counties. Only 8 countries among them, account for more than 82% of the total migrants till now (Siddiqui, 1998). These countries are Saudi Arabia, UAE, Kuwait, Qatar, Iraq, Libya, Bahrain and Oman of which Kingdom of Saudi Arabia, alone accounts for nearly half of the total number of workers who migrated from Bangladesh during the period 1976-2010.

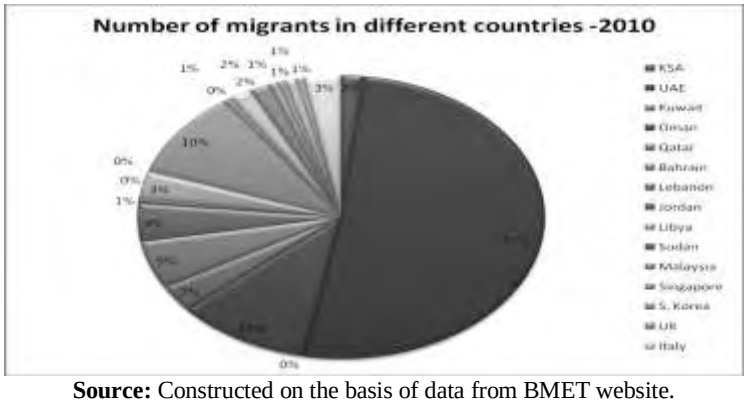
Figure 4: Country-wise overseas (Major countries) employment (1976-2010)



Source: Constructed by basis of data from BMET website

Considering all countries together it is found that again K.S.A. is the largest provider of remittances to Bangladesh. From 1976 to2010 altogether 2,580,198 (35.18%) people have migrated from Bangladesh on overseas employment. From the late 1980s to 1997 Malaysia used to be the second largest employer of Bangladeshi migrant workers. However, due to financial crisis, the number of Bangladeshis migrating to Malaysia fell drastically. UAE stands in the second position among the Bangladeshi labor importing countries (1,790,791) (25.11%). Other major countries of destination for migrant workers are Kuwait, Oman, Qatar, and Bahrain.

Figure 5: Number of migrants in different countries -2010



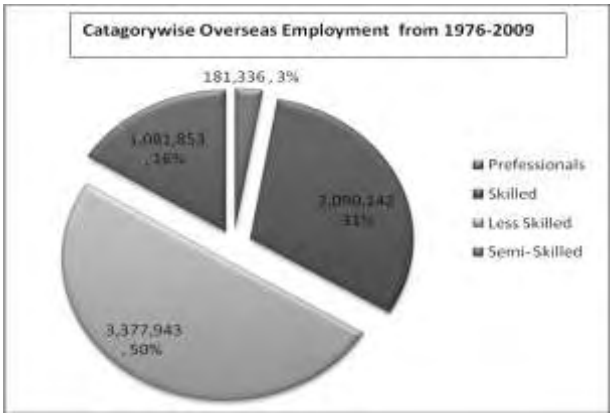
Source: Constructed on the basis of data from BMET website.

Figure-5 demonstrates the relative share of source countries in the Number of migrants in FY2010. According to this Chart, in 2010 U.A.E had a sizeable 51% percent share as compared to the countries like K.S.A, Kuwait, Oman and Singapore.

Currently, Saudi Arabia, UAE, Kuwait, Qatar, Oman, Iraq, Libya, Bahrain, Iran, Malaysia, South Korea, Singapore, Hong Kong and Brunei are some of the major countries of destination. Saudi Arabia alone accounts for nearly one half of the total number of workers who migrated from Bangladesh. Labor market of Bangladeshi workers is not static. During the 1970s Saudi Arabia, Iraq, Iran and Libya were some of the major destination countries. While the position of Saudi Arabia remains at the top, Malaysia and UAE became important receivers. In mid-1990s, Malaysia became the second largest employer of Bangladeshi workers. However, since the financial crisis of 1997, Bangladeshis migrating to Malaysia dropped drastically. Now UAE has taken over its place.

It would be observed from the statistics of Bureau of Manpower Employment and Training (BMET) that during 1976 to 2009 about 50 percent of overseas worker are unskilled. From the figure it is observed that among of the total expatriate labor force, 50 percent were engaged as less-skilled remaining 50 percent were professionals and skilled & semi-skilled workers.

Figure 6: Number of Expatriates Classified by Skilled



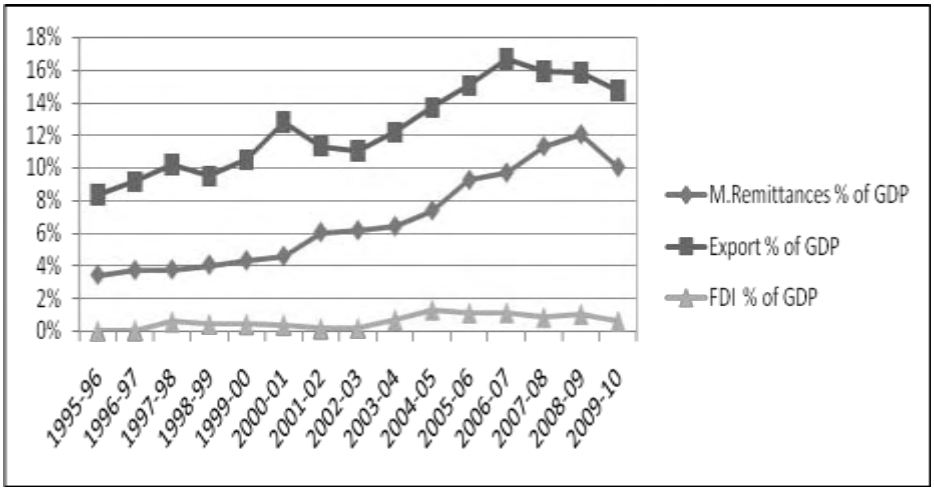
Source: Constructed by the basis of data from BMET website.

The pie chart shows that the share of professional, skilled, semi-skilled and unskilled laborers in the total expatriate workforce were 3.00 percent, 31.00 percent, 16.00 percent and 50.oopercent respectively during 1976 to 2009 .

3.4 Remittances and Macro-Economic Indicators

Flow of remittances has been crucial for Bangladesh economy. There is a general agreement that conducive macro-economic climate and innovativeness of the financial sector have major consequences for inflow of remittance into migrant workers' home countries. Remittance has proved to be the most stable and resilient amongst the external sources of income. It is categorically seen from the figure that while export, net FDI and foreign aid display unstable movement, remittances have maintained a relatively stable uptrend in spite of frequent economic shocks.

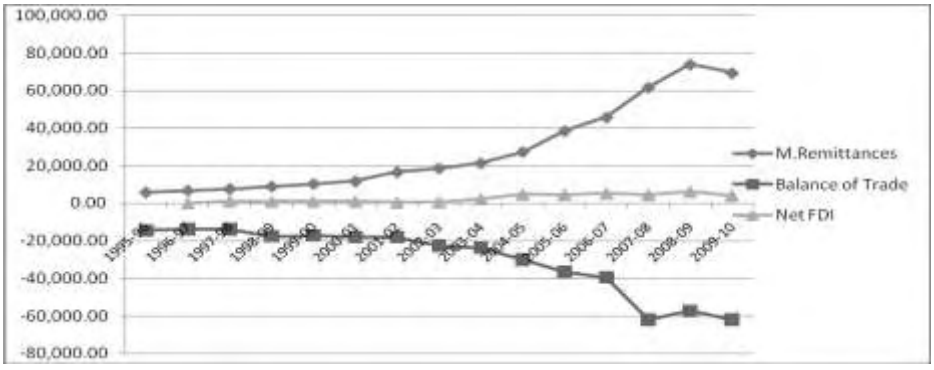
Figure7: Migrants' Remittances and selected Indicators of Bangladesh As a% of GDP (1996-2010)



Source: Constructed by the author on the basis of data from various issues Economic Trends, Bangladesh Bank and BMET website.

It is also evident that migrants' remittances have been outpacing trade deficit for quite a few years and net Foreign Direct Investment (FDI) for the whole period under study. This implies that remittance is in the leading position among all types of inflows and is large enough to compensate the typical negative gap between export and import in Bangladesh.

Figure 8: Trend lines of remittance, balance of trade and Net FDI (1996-2010)



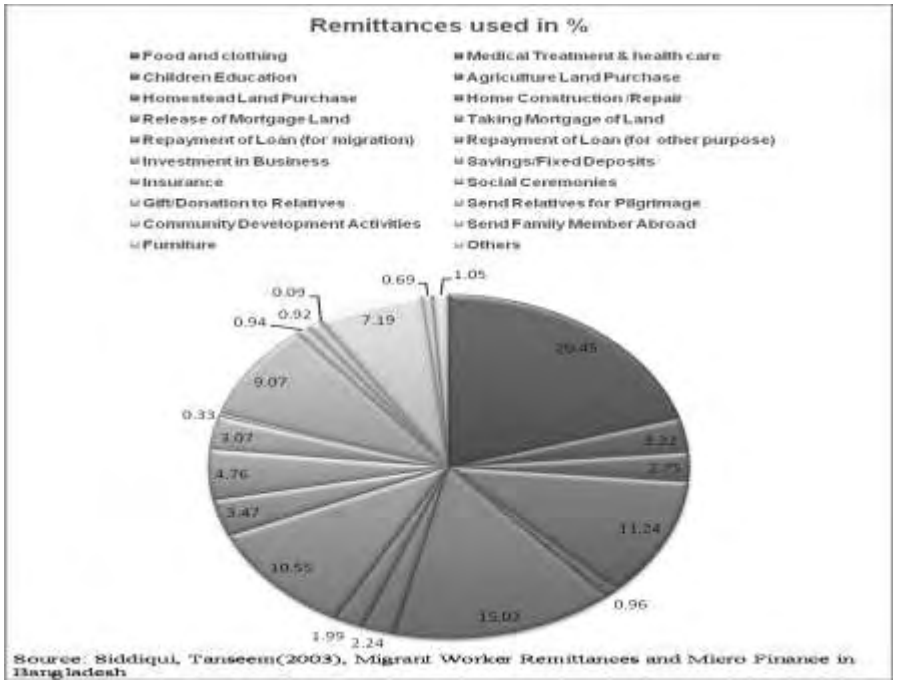
Source: Constructed by the author on the basis of data from various issues Economic Trends, Bangladesh Bank and BMET website.

Figure 8 shows trend lines of remittance, balance of trade and Net FDI. The trend line of remittance is in the positive quadrant and is upward sloping; while that of balance of trade is in the negative quadrant and is downward sloping and the trend line of net FDI has ups and downs around the horizontal axis. This implies that remittance greatly helps to reduce the deficit in the balance of trade and some times make the balance of payment

surplus. Moreover, remittance is increasing at an increasing rate. Since in case of Bangladesh balance of trade is almost in all years negative, therefore amount of remittances has significant influence on the balance of payments. It is the amount of remittance which makes BOP either deficit or surplus.

3.5 Utilization of Migrants' Remittance

The impact of the remittance on the economy depends to a large extent on the way they are used. Over the last few years in Bangladesh, major policies and actions have been undertaken to ensure greater flow of remittance through official channel, yet steps towards effective utilization of remittance are still inadequate. A study estimated that 50-60% of remittances are typically spent in current consumption and only 10% goes to investment. The common perception of government functionaries and NGO activists is that migrants spend a large portion of their remittance in conspicuous consumption. A number of studies conducted over the last few years demonstrate that in the 1980s a section of migrants may have spent the remittance unproductively. But the picture since 1990s is greatly different. Sector wise uses of remittances are given below:



The above pie chart explores the picture that a significant portion of remittances are used for household consumption and non-productive investment. Only 4.76% of remittances are utilized for productive investment.

4.1 Development Impact migrants' Remittances on the Economy of Bangladesh

Migrants' remittances have a number of beneficial economic effects. Some of these effects are micro-economic in nature and have direct consequences on the well being of the household that receives remittances. The most obvious being an augmentation of

income. Other effects are more economy wide in nature, provided the remittance flows arrive through official channels, and have macro-economic implication. This section reviews some of the more important potential gains from remittances.

The development Impact of migrant' remittances can be divided into two categories-

- Macro-economic Impact
- Micro-economic Impact

4.2 Macro-Economic Impact - An Econometric Analysis

An attempt is made in this section to determine the impact of workers' remittances on the economy of Bangladesh and highlight the possible impact of the change in inflow of remittances using the standard Keynesian macroeconomic model. The structural equations estimated are summarized below.

1. $C = Co + cYd + e1$
2. $I = Io + bY + e2$
3. $M = Mo + mY + e3$
4. $T = To + tY + e4$

- The first equation states that consumption expenditure depends on disposable income (Yd), where Co is the autonomous consumption expenditure and c is the marginal propensity to consume out of disposable income (Yd).
- Equation 2 describes a private investment function in terms of national income (GNP) where Io is autonomously determined and 'b' is the marginal propensity to invest.
- Equation 3 describes an import function in terms of GNP where Mo is autonomous and m measures marginal propensity to import.
- Equation 4 is the tax function where To is autonomous tax and t is the marginal propensity to tax out of national income.

The Macro-Econometric Model:

$$Y = C + I + G + Rm. + Ex. - M.$$

Where,

- Y = National income.
- C = consumption.
- I = Total Investment.
- G = Govt. expenditure.
- Rm. = Remittance.
- Ex = Export.
- M = Import.

The model includes six endogenous variables:

1. Consumption (C).
2. Investment (I).
3. Import (M).
4. Tax revenue (T).
5. Disposable income (Yd).
6. GNI (Y).

And three exogenous variables:

- Govt. Expenditure (G).
- Remittance (REM).
- Export (Ex).

A simple national income identity model will be estimated which states that the value of national income generated in the economy equals the sum of private consumption and investment, government expenditure, export, remittances minus imports. Now we will define each component of national income determination in functional form. The endogenous variables will be substituted into our national income identity model to get the reduced form of national income equation to allow us to solve for the remittance multiplier.

Findings:

Consumption Function: The estimated consumption function is-

C = 18.716 + 0.705 Yd.

The estimated equation shows that the marginal propensity to consume in response to disposable income is positive and is 0.705. This implies if disposable income increases by 1 unit, say, 1 Taka, 70 Paisa is spent on consumption. The intercept is 18.716, which indicates the level of consumption when disposable income is zero**.(Annex- Reg:1)**

Investment Function: The estimated Investment Function is-

I = -3.603+ 0.233 Y.

The regression coefficient measures the marginal propensity to invest out of income. According to the estimated regression equation the marginal propensity to invest is positive with a magnitude of 0.233, which implies as national income increases positive with a magnitude of 0.233, which implies as national income increases by one Taka, investment increases by 0.23 Taka**.(Annex- Reg:2)**

Import Function: The estimated Import Function is-

M = - 19.426+ .258 Y.

The marginal propensity to import out of national income is positive and is 0.258. This implies if national income increases by one Taka, the import bill rises by 0.258 Taka**.(Annex- Reg: 3)**

Tax Function: The estimated tax function is-

T = -4.470+ .086 Y

The response of tax to the change in national income is positive as expected and is .09(approximately). This implies that if national income increases by 1 Taka, the tax revenue also increases by.09 Taka**. (Annex- Reg: 4)**

Impact of Remittances on GNP

Using the relevant estimated parameters from structural equations into the formula in equation, the multiplier is estimated at 2.63(Appendix A- Determination of Remittance Multiplier). This indicates that an increase in remittance by one million Taka would result in an increase in national income by 2.63 million Taka. We know that the remittance multiplier depends positively on the marginal propensity to consume and invest and negatively on marginal propensity to import. Thus, government policy should aim at increasing the marginal propensity to spend on domestic products and

discourage expenditures on imported products in order to maximize the positive impact of remittances on national income.

Impact of Remittances on Consumption

The multiplier effect of remittances on consumption is calculated as 1.62 (2.63 *0.705). This multiplier is used to calculate the proportion of private consumption expenditure induced by the flow of remittances over time. The induced component is measured by the value of remittances multiplied by 1.62. It is estimated that remittance-induced consumption gradually increased over the years from 1993 onwards, declining temporarily in 1985 and 2000.

Impact of Remittances on Investment

The multiplier effect of remittances on investment spending is estimated at 0.613 (2.63 *0.233) .Remittance induced private investment is measured through a similar process adopted earlier to calculate remittance induced consumption expenditures and the trend exhibited is also quite similar.

Impact of Remittances on Import

The multiplier effect of a Taka increase in remittances on imports estimated at .679 (2.63*0.258). As is observed remittance-induced imports are showing a increasing trend in recent years, reaching its highest level in 2009-10, since 1995.

In all equations the coefficients had the correct signs. There was no auto-correlation in the reduced form equations. The coefficients were statistically significant and the model has an overall high value of adjusted R^2.

The results thus indicate that remittances have a strong positive impact on GNP, a positive impact on consumption, investment and imports, but the largest impact is on private consumption while the smallest on investment and imports.

Remittances—transfers of resources from individuals in one country to individuals in another—are an important source of private funds in developing countries like Bangladesh. Unlike foreign investment, which goes to a limited number of well-established economies, or the volatile earnings from trade, remittances tend to be stable, thus helping to cushion domestic economic shocks. And they are of direct benefit to the individuals and households that receive them.

Labor migration and remittances have had a significant positive macroeconomic impact on Bangladesh. In the absence of a developed social insurance system and efficient domestic labor market, labor migration and remittances have been for many Bangladeshis the primary mechanism to address poverty. In this sense, remittances have acted as a social shock absorber. Remittances have fueled consumption and growth. The size of remittances tends to determine their end use – either consumption or investment. Although initially nearly all remittances were used for subsistence, there are indications that at least part of them is being directed toward investment. Remittances have contributed to financing the trade deficit and kept the current account deficit manageable.

Remittances and labor migration have had a positive impact on public finances. Imports boosted by remittances are a source of additional revenue collection in the form of VAT and import duties. As emigration has eased the unemployment problem and helped

contain the associated fiscal expenditures, it can be seen as alleviating the fiscal burden of government. In addition, the consequent remittances can be seen as providing a social safety net, which otherwise would have to be met by the government.

Remittances have helped to strengthen the banking system and enhanced competition. With simplified regulations for bank transfers, whereby the recipient does not need to have a current account with the bank to receive remittances, the banks have to compete with each other and other financial intermediaries for customers. Remittances may be more efficient as a source of development finance than official development assistance. Remittances are based on private incentives and mainly take place between members of the same household. Intra-family transfers give no direct incentive for corruption. Both senders and recipients are likely to be more concerned about the efficiency of their transfers than may be the case in the public sector.

The longer-term impact of remittances will depend largely on their pattern. While in many countries remittances have been a relatively stable source of external financing—more stable than foreign investment or development aid—they can still be volatile and should be viewed as being composed of a permanent and a variable component.

4.3 Micro-Economic Impact

Remittances have enormous effects on the life of individuals as well as on the family of that person who lives abroad.The dependents of that person take education by the earning of the person. A significant amount of earnings is spent for the education of the children and the dependents. As a result we can say that remittance has an effect on the education of the country. There have a number of educational institutions which are being run by the money send as remittance. The community improvement has tremendous potential in improving education and the improvement of health care services.

Earning of the people has been increased due to the remittance. Money sent as remittance used in the establishment of small and medium business. It increases the per capita income of the citizens of the country. With the increase of the per capita income living standard of the people of the country is increased. People living in different countries have stability in earning compared to the earning in our country. The poorer the household, the more impact or benefits remittance income can have on alleviating poverty. In the short term remittances help loosen the budget constraints of there recipients, allowing them to increase expenditures on both durables and non durables products and provides them with protection against negative income shocks.

The priority could range from increasing essential consumption to increasing non essential consumption, it could imply setting up and financing micro business, it could imply acquiring assets such as land or investment inhuman capital such as completion of a family members education and training. Each of these uses of financial recourses obtained through remittances clearly has the positive effect on the local economy. Any increase in consumption expenditure induces a rise in the aggregate demand that in turn, induces additional production and employment. Remittances act as injection of autonomous spending that have a multiplier effect on the local economy. Remittances, moreover, are not related to local economic out come and shocks. Hence, remittances are truly an insurance and income fluctuations and entitlement failures. The other types are

related to more long term benefit in term of returns that are expected to flow in future, as in the case of purchase of agricultural land or investment in human capital.

In the handling of the renitence, provided they reach the recipients through offices channels such as banks, the externality acquiring in terms of improve banking habits can not be ignored. Quite often the first experience of new transaction technologies like modern banking facilities or even the use of modern communication facilities such as cell phone come about through the experience of handling the migration relationship. This creates demand for improved and more modern service. The economic impact of such demands is obvious enough.

5.1 The Future Challenges regarding migrants' remittances

After the liberation, very little was known about migrants' remittances beyond anecdotal information. After 1980, we now have a much more accurate accounting and understanding of remittances flows and their development Potential. Numerous efforts are underway around the world to better understand remittances and to improve their development impact. The World Bank is taking the lead on improving data collection, through work with central banks, and numerous bilateral donors are involved with various aspects of remittances, as well as several non-governmental organizations, foundations and universities.

The huge scale of remittances Bangladesh can be a powerful force to open up financial systems, mobilize savings, generate small business loans, and multiply economies impact for individual families and the country as a whole. Remittances are different. They are private transactions between private parties. The money is family money; earned by work hard and at considerable sacrifice. These family transfers represent the ultimate in family values: hard work, thrift, sacrifice, and hope for a better future. Underlying all of them is one basic fact: It's their money. The money rightly belongs to them and their families.

Yet remittances remain private flows in search public opportunity. Action on the part of Government, remittance institutions, and civil society can do much to provide the incentives and capacities needed to enable people to put their money to use for their families and their futures. Such as-

Leverage Development Impact

Public and private sector and organizations should systematically identify obstacles to leveraging the development impact of remittances, and engage with all relevant stakeholders to address and remove such obstacles.

Political Stability

In Bangladesh Politics, volatile in nature, pushes the Foreign Aid, Foreign Direct Investment, Export and Inward Flow of Remittances to downstream. The politicians' desire seemed to capture the governing power of the country only rather serving the nation. This evil desire has been ruining the country since many years in every aspect. Thus political reformation is a requisite of time for Bangladesh.

Expand Financial Services

Financial institutions should deepen financial markets through inclusive and integrated services for remittance customers, such as current account services, savings, credit, and mortgage products, among others.

Provide Job Opportunity and Training

Proper information about job opportunities in the overseas countries has to be spread all over the country timely and job security should be in the foreign country. Training centers are to be setup for the people who want to go overseas countries for employment opportunities.

Improve Transparency of the Remittance Institutions

Remittance institutions should disclose in a fully transparent manner, complete information on total costs and transfer conditions, including all commissions and fees, foreign exchange rates applied, and execution time.

Promote Fair Competition and Pricing

Remittance institutions should compete on the basis of fair and non-discriminatory contractual arrangements. They should refrain from unfair pricing and the use of high exchange rate margins.

Technological Advancement

Remittance institutions should apply cost effective technology and deploy innovative platforms to cut costs, improve speed and security, and create new products. Such systems can also help to reduce money-laundering and other illicit activities.

Electronic and Mobile Banking

Government and remittance institutions should set off international money transfer system through electronic and mobile banking, from around the world, quickly, easily, safely and reliably. It can be availed by families, overseas travelers & others- for remittances in emergencies & otherwise. It facilitates the remitters to send their hard earned money with minimum amount of cost from the remote areas of the migrant countries.

Improve Data

Government should improve systems for collecting and reporting remittance market data, and help to develop international standards for measuring such data.

Seek Partnerships and Alliances

Remittance institutions should seek partnerships and alliances, including linkages between money transfer companies and financial institutions, in order to leverage capabilities and promote financial services, and other forms of financial intermediation.

Produce Expert Work-Force

Bangladesh should produce expert work-force in the country not only to cater to the demand of international community but it should also strengthen its own institutions to avoid the intellectual and economic vacuum.

Encourage Financial Intermediation

Government should facilitate the mainstreaming of remittances into financial institutions by improving regulatory and financial sector frameworks.

Promote Financial Literacy

Government should raise awareness of the benefits of savings and other financial products, and inform consumers of their rights involving remittance transactions.

Support Social and Financial Inclusion

Government and organizations should support the social and financial inclusion of transnational families into their communities, and develop innovative partnerships to promote training and local productive opportunities.

Improve Law and Enforcement System

Government should takes more initiative to discourage the Hundi system. Remittance sending procedure should be developed to make it secured, quick and effective. Police and law enforcing agencies should be more active to remove Hundi system and encourage formal channels for sending the money.

Progress on any of these will improve the lives of many migrants and their families, but transforming the economic and social potential of remittances in Bangladesh will require concerted effort on all. Moreover, remittances are not a substitute for pro-growth policies, investment in education, or skills formation in labor-exporting countries. However, by changing incentives, governments can improve the economic impact of remittances. The time to enact such changes is while these flows remain robust.

6.1 Conclusion

Remittances from migrant Bangladeshis are recognized as a key factor in the national economic development. These foreign funds have an effect on stabilizing household incomes during the period of economic distress and improving savings during times of economic outlook. Remittances strengthen the financial sector which has positive impact on overall economic condition of our country. Also, Bangladesh can improve the development of its infrastructure, reduce poverty and generate job growth by continuing to support and develop opportunities to drive remittance flows into the country.

In conclusion, the key challenge for the government of Bangladesh is to provide incentives to attract more remittances sent through formal channels and ensure their productive use. For this purpose, Bangladesh should devise such plans, initiate projects, develop industries, and strengthen educational and vocational institutes of every field so much so that it, as a member of international community, contributes toward international as well as national wholesome development instead of being a parasite on the international resources. In this regard, the international community can also play a vital role by helping Bangladesh in dealing with this situation. Since economic stability and intellectual strengthening are interdependent; therefore, through the achievement of the former, the later can be accomplished to help prevail an atmosphere of moderation and balance in terms of social and cultural values. Government's proper utilization of the remittances in the productive purposes will change the economic scenario within shortest possible time.

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Appendix-A

The Estimation Procedure

Key Indicators of National Account

Period	Gross National Disposable income at current market price	Total consumption at current market price	GNI at current market price	Total Investment current market price	Total Imports	Tax(NBR)
1995-96	175.10	141.54	171.28	33.25	28.30	11.37
1996-97	190.95	151.96	186.55	37.45	30.54	12.5
1997-98	208.91	165.32	206.67	43.30	34.18	13.75
1998-99	229.81	180.80	227.25	48.76	38.48	14.87
1999-00	249.45	194.69	245.78	54.59	42.13	15.12
2000-01	264.73	207.92	262.39	58.54	50.37	18.77
2001-02	287.63	223.60	285.74	63.24	49.05	20.22
2002-03	319.32	244.57	317.16	70.35	55.92	20.42
2003-04	352.65	267.93	350.53	79.99	64.26	26.19
2004-05	392.32	296.51	389.64	90.92	80.90	29.9
2005-06	446.58	331.55	442.94	102.48	99.13	33.98
2006-07	511.74	376.32	507.75	115.59	118.48	37.21
2007-08	599.88	434.97	594.21	132.13	148.37	47.43
2008-09	673.10	491.29	670.70	149.84	154.82	52.52
2009-10	759.95	560.88	758.68	172.83	164.24	62.04

Source: Monthly Economic Trends(Up to February 2011)
Note: For regression analysis amount is taken considering tk in crores('000)

The simultaneous equation model was estimated on the basis of the above time series data over the period 1995-2010. All the variables are measured Taka in Crore ('000).

Annex: 1(Regression-1)

Descriptive Statistics

	Mean	Std. Deviation	N
C	284.6567	129.5729	15
YD	377.4747	183.8685	15

Correlations

		C	YD
Pearson Correlation	C	1.000	1.000
	YD	1.000	1.000
Sig. (1-tailed)	C	.	.000
	YD	.000	.
N	C	15	15
	YD	15	15

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	YD[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: C

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000[a]	.999	.999	3.0231

a. Predictors: (Constant), YD

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	234929.0	1	234928.993	25705.334	.000[a]
	Residual	118.811	13	9.139		
	Total	235047.8	14			

a. Predictors: (Constant), YD

b. Dependent Variable: C

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.716	1.833		10.209	.000
	YD	.705	.004	1.000	160.329	.000

a. Dependent Variable: C

Coefficient Correlations[a]

Model			YD
1	Correlations	YD	1.000
	Covariances	YD	1.931E-05

a. Dependent Variable: C

Annex: 2(Regression-2)

Descriptive Statistics

	Mean	Std. Deviation	N
I	83.5507	42.8568	15
Y	374.4847	183.9296	15

Correlations

		I	Y
Pearson Correlation	I	1.000	.999
	Y	.999	1.000
Sig. (1-tailed)	I	.	.000
	Y	.000	.
N	I	15	15
	Y	15	15

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Y[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: I

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999[a]	.998	.997	2.1671

a. Predictors: (Constant), Y

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25652.768	1	25652.768	5462.266	.000[a]
	Residual	61.053	13	4.696		
	Total	25713.820	14			

a. Predictors: (Constant), Y

b. Dependent Variable: I

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.603	1.305		-2.760	.016
	Y	.233	.003	.999	73.907	.000

a. Dependent Variable: I

Coefficient Correlations[a]

Model			Y
1	Correlations	Y	1.000
	Covariances	Y	9.916E-06

a. Dependent Variable: I

Annex: 3(Regression-3)

Descriptive Statistics

	Mean	Std. Deviation	N
M	77.2780	47.9176	15
Y	374.4847	183.9296	15

Correlations

		M	Y
Pearson Correlation	M	1.000	.991
	Y	.991	1.000
Sig. (1-tailed)	M	.	.000
	Y	.000	.
N	M	15	15
	Y	15	15

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Y[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: M

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991[a]	.983	.981	6.5779

a. Predictors: (Constant), Y

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31582.849	1	31582.849	729.926	.000[a]
	Residual	562.491	13	43.269		
	Total	32145.340	14			

a. Predictors: (Constant), Y

b. Dependent Variable: M

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-19.426	3.962		-4.903	.000
	Y	.258	.010	.991	27.017	.000

a. Dependent Variable: M

Coefficient Correlations[a]

Model			Y
1	Correlations	Y	1.000
	Covariances	Y	9.136E-05

a. Dependent Variable: M

Annex: 4(Regression-4)

Correlations

		T	Y
Pearson Correlation	T	1.000	.997
	Y	.997	1.000
Sig. (1-tailed)	T	.	.000
	Y	.000	.
N	T	15	15
	Y	15	15

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Y[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: T

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.997[a]	.995	.994	1.1984

a. Predictors: (Constant), Y

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3506.699	1	3506.699	2441.868	.000[a]
	Residual	18.669	13	1.436		
	Total	3525.368	14			

a. Predictors: (Constant), Y

b. Dependent Variable: T

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-4.470	.722		-6.194	.000
	Y	8.605E-02	.002	.997	49.415	.000

a. Dependent Variable: T

Coefficient Correlations[a]

Model			Y
1	Correlations	Y	1.000
	Covariances	Y	3.032E-06

a. Dependent Variable: T

Determination of Remittance Multiplier

We use the co-efficient on the remittances in the output equation to determine the remittance multiplier. This multiplier measures the impact of Taka change in remittances on output.

Theoretically the multiplier takes the following form

Y/ REM = 1/1-c (1-t) - b + m

Where,

c = is the marginal propensity to consume out of disposable income (.705).

t = Tax rate (.086).

b = is the marginal propensity to invest (.233).

m = measures marginal propensity to import (.258).

This indicates that the multiplier is determined by the magnitude of marginal propensity to consume or invest increase the multiplier and an increase in marginal propensity to import decreases it.

So, the multiplier is-

Y/ REM = 1/1-c (1-t) - b + m

= 1/1-.705(1-.086) - .233 + .258

= 2.63

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Analysis of the Operational Efficiency of Commercial Banks: A Study of the Islamic Banks in Bangladesh

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Abstract: *The present study focuses the operational efficiency achieved by the banks rendering Islamic banking services in Bangladesh. The measures are found through explorative study of the information gathered from the financial statements and calculation of the ratios like return on asset (ROA), Return on Equity (ROE), investment to deposits, net profit after tax (NPAT), and assets position. The study also finds the regression equations of the respective banks to depict the relationship of their profitability in terms of deposits and other selected variables. This study also hints the prospects of Islamic banking in Bangladesh, trends of their business as well as the problems faced by them as these are relevant to the study of their operational efficiency. The study also finds that Islamic banks cannot operate with their full efficiency level if it operates under the conventional framework of banking.*

Key Terms: Operational efficiency, Mudaraba, Mushareka, Leverage Multiplier, Profit and Loss Sharing (PLS)

1. Introduction

Banking is the mostly dominating industry in the financial and economic sectors of Bangladesh. At present this industry comprised by two basic forms of banking one is traditional banking system and another is Islamic commercial banking system. After the world recession in the years of 2007-2009, Islamic banking (IB) systems are gaining more popularity and importance in the banking sector of Bangladesh as well as to the whole world. Islami Bank Bangladesh Limited (IBBL) is the first Islamic bank in Bangladesh and that was founded in 1983. After that 6 more Islamic commercial banks were established and these are Export Import Bank Limited (EXIM), Shahjalal Islamic Bank Ltd. (SJIB), Al-Arafah Islamic Bank Ltd., First Security Islamic bank Ltd. (FSIB), Social Islamic Bank Limited (SIBL) and the ICB Islamic bank Limited. The paper measures their performance through computing financial ratios and analyzed the Islamic banking environment through formulating regression lines.

2. Rationale of the Study:

In the conventional system of banking, Banks safeguard money and provide loans, credit, and payment services such as checking accounts, debit cards, and cashier's checks. Banks also may offer investmentand insurance products. As a variety of models for cooperation and integration among finance industries have emerged. But one model in the verge of rising and stiff competition, consolidation among banks, globalization, deregulation, liberalization, and continuous innovation, is to provide Islamically acceptable financial services have given rise to the interest of all the concerned and interested parties in detailed critical evaluation of Islamic banks. Islamic Banks are operating based on

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Islamic sariah & principles that does not support interest based banking where as conventional banks are in favor of interest and conventional rules & regulation. In a highly competitive financial market bank performance provides signal to depositor-investors whether to invest or withdraw funds from the bank. Depositors may also be interested in evaluating the performance of the bank as they are not entitled to fixed returns and the nominal values of their deposits are not guaranteed. Managers are keen to know the outcomes of previous management decisions as well as to evaluate whether to improve loan service or deposit service or both to improve its finance. Being responsible for safety and the soundness of the banking system and preserving public confidence bank regulators monitor banks' performance to identify banks that are experiencing severe problems. Persistent monitoring of performance is important as existing problems may remain unnoticed and can lead to financial failure in the future otherwise [Samad & Hassan (2000), and Hassan & Bashir (2003)]. This rationale is same for the Islamic Banking Industry as well. So, an analysis of the operational efficiency of the commercial Banks in Bangladesh and particularly the focus to the Islamic Banks in Bangladesh is very rational and time proven study.

3. Objectives

The objectives of the study are (i) to evaluate the historical performance of operational efficiency of Islamic banks in Bangladesh, (ii) to compare and contrast among the Islamic banks' performance (iii) to identify the problems and challenges that Islamic banks in Bangladesh are facing at present and also to explore the prospect that could be exploited in the best possible way

4. Methodology and the sources of Data

The study is based on the secondary data. Last five years' (2004-2008) data are being collected from the financial statements of the 7 banks[1] currently rendering the full fledged Islamic banking services in Bangladesh.

To formulate the regression equations, to compute the financial ratios and trend analysis, statistical tools of SPSS and Microsoft Excel are used in order to materialize the objectives of performance evaluation of the operational efficiency of the Islamic banking institutions of Bangladesh. In addition, table and graphs are constructed to present the data and interpret the findings of the study.

5. Literature Review

The banking industry in Bangladesh has flourished over the years, making double-digitprofit percentages, sustaining growth and surviving cut-throat competition while providing attractive returns to shareholders. However, the greed for more without befitting platform and fundamentals, brings its own challenges and questions in people'sminds. News about bank directors and chairmen's involvement in politics and under-hand deals using banks' goodwill raises question about the banks' independence in running their operations. It also makes you think whether all the disclosures in theannual reports and other regulatory paperwork are only the glowing shell over a hugehollow.

[1] In most of the calculations data of six Islamic Banks (IBs) are used as the data unavailability of the SIBL

The image of the banking industry has many times been tarnished by several stories regarding the owners in recent media releases. Despite the considerable progress made, foreign countries are still somehow treating our banking industry activities as questionable.

However, Bangladesh witnessed, just after the liberation war in 1971 that Islamic banking was successfully tries in Egypt. During the seventies, Islamic Development Bank (IDB) and a number of Islamic banks at national levels were established in the Islamic world. Two professional bodies "Islamic Economics Research Bureau" (IERB) and "Bangladesh Islamic Bankers Association" (BIBA) were taking practical steps for imparting their dream into reality to establish Islamic bank in Bangladesh. The body concentrated mainly in mobilizing equity capital for the emerging Islamic bank. Due to continuous and dedicated work of the above groups and individuals and active support from the Government, IBBL could be established as the first Islamic bank in Bangladesh in 1983. At present 7 Islamic banks and several Islamic banking branches of the traditional banks are in existence in the country. Among them, SJIB was established in 2001, EXIM bank in 1999, Al-Arafah Islami Bank Limited in 1995, FSIB in 1999, SIBL in 1995 respectively. The ICB Islamic Bank Limited was established as the Oriental Bank limited as its previous name in the year of 1987.

5.1 Operational Efficiency

Operational efficiency is a market condition that exists when participants can execute transactions and receive services at a price that equates fairly to the actual costs required to provide them. An operationally-efficient market allows investors to make transactions that move the market further toward the overall goal of prudent capital allocation, without being chiseled down by excessive frictional costs, which would reduce the risk/reward profile of the transaction [Omar Masood, 2005]. In other areas of the market, certain structural or regulatory changes can serve to make participation more operationally efficient. In 2000, the Commodity Futures Trading Commission (CFTC) in the USA passed a resolution allowing money market funds to be considered eligible margin requirements, where before only cash was eligible. This minor change reduced unnecessary costs of trading in and out of money market funds, making the futures markets much more operationally efficient. Khan, M. Fahim, (1983), studied the possibility of the worldwide operations of Islamic banking and Man, Zakariya, (1988) studied the same as Khan, M. Fahim but he studied the cases for Malaysia as the particular reference. In Bangladesh, Kabir (2000) and Muzahid (2009) studied the comparative performance of the Islamic banks in Bangladesh with the traditional commercial banks.

5. 2 Efficiency Ratios

Ratios that are classically used to analyze how well a company uses its assets and liabilities internally are termed as the efficiency ratios. Efficiency Ratios can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity and the general use of inventory and machinery. Some common ratios are accounts receivable turnover, fixed asset turnover, sales to inventory, sales to net working capital, accounts payable to sales and stock turnover ratio. These ratios are meaningful when

compared to peers in the same industry and can identify business that is better managed relative to the others.

5.3 Profitability Ratios

Profitability ratios means a class of financial metrics that are used to assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well. Some examples of profitability ratios are profit margin, return on assets and return on equity. It is important to note that a little bit of background knowledge is necessary in order to make relevant comparisons when analyzing these ratios.

5.4 Return on Asset (ROA)

Return on assets measures a company's earnings in relation to all of the resources it had at its disposal (the shareholders' capital plus short and long-term borrowed funds). Thus, it is the most stringent and excessive test of return to shareholders. If a company has no debt, the return on assets and return on equity figures will be the same. It is calculated as the net earnings divided by total assets. It is consisted of two ratios- profit margin and asset turnover. The formula is-

$$ROA = \frac{\text{Net profit after tax}}{\text{Total Asset}}$$

5.5 Return on Equity (ROE)

Return on Equity measures the rate of return on the ownership interest (shareholders' equity) of the common stock owners. It measures a firm's efficiency at generating profits from every unit of shareholders' equity (also known as net assets or assets minus liabilities). ROE shows how well a company uses investment funds to generate earnings growth. It is calculated as the net earnings divided by total equity. It is consisted of two ratios- ROE (Return on Equity) and Leverage Multiplier. The formula of ROE is-

$$ROE = \frac{\text{Net profit after tax}}{\text{Total Equity}}$$

5.6 Earnings per Share (EPS)

Earnings per share are generally considered as the portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serve as an indicator of a company's profitability and calculated as:

$$EPS = \frac{\text{(Net Income)} - \text{(Dividends on Preferred Stock)}}{\text{Average Outstanding Shares}}$$

5.7 Deposit Account

A deposit account is a current account, savings account, or other type of bank account, at a banking institution that allows money to be deposited and withdrawn by the account holder. These transactions are recorded on the bank's books, and the resulting balance is recorded as a liability for the bank and represent the amount owed by the bank to the customer. Some banks charge a fee for this service, while others may pay the customer interest on the funds deposited.

5.8 Regression Analysis

Regression analysis includes any techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps us understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. Regression analysis is widely used for prediction and forecasting, where its use has substantial overlap with the field of machine learning. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In restricted circumstances, regression analysis can be used to infer causal relationships between the independent and dependent variables.

6. Analysis and Findings

6.1 Comparison in terms of the trend of deposit collection

To compare the financial positions of the six banks (as SIBL data was not available) based on the data collected from financial statements, the deposit collection trends of the banks are shown in the following table.

Banks	2004	2005	2006	2007	2008
IBBL	100	122.71	150.75	189.35	228.1
EXIM	100	148.44	183.62	217.77	301.85
AL-Arafah	100	115.19	165.96	227.63	293.72
SJIB	100	134.24	198.98	248.77	401.28
FSIB	--[*]	--	100	133.61	147
ICB Islamic Bank	--	100	87.89	73.32	55.49

Table-1: Trend percentages of total Deposit collection of IBs

In case of total deposit position, 2004 is taken as the base year for IBBL, EXIM, Al-Arafah and Shahjalal Islami banks and 2005 for ICB and 2006 for First Security bank ltd depending on the availability of information. In the initial level that is in 2004 the total deposit position of IBBL is the highest (tk. 6091 million[2]) compare to others. For all the banks it's an increasing trend except ICB. We see that, the increasing trend is very much

[*] will indicate the unavailability of data for the whole of the paper

[2] to find the figures in the brackets see appendix

close to each other on an average. And in 2008 it's the highest (401.28%) for Shahjalal Islami Bank Ltd. And for ICB Islamic Bank its decreasing trend.

6.2 Comparison in terms of Asset position

Banks	2004	2005	2006	2007	2008
IBBL	102149	122880	150253	191362	230879
EXIM	24356	33717	41794	51503	68446
AL-Arafah	12875	15337	21368	30182	39158
SJIB	9742	14448	21343	28347	45217
FSIB	--	23211	18779	17464	19744
ICB Islamic Bank	--	--	20448.67	26941.78	31239.39

Table-2: Total asset position of IBs (Tk. In million)

The data of the year of 2004 have been taken as the base year for IBBL, EXIM, Al-Arafah and Shahjalal Islami banks and 2005 for ICB and 2006 for First Security bank ltd depending on the availability of information. Here we see that, in the initial level that is in 2004, the total asset position of IBBL is the highest compare to others. For all the banks the figures shows an increasing trend except FSIB.

6.3 Comparison in terms of the investment trend position

Banks	2004	2005	2006	2007	2008
IBBL	100	122	147	208	236
EXIM	100	148	217	288	460
AL-Arafah	100	141	214	281	364
SJIB	100	132.6	167	204	270
FSIB	----	---	--	100	53.35
ICB Islamic Bank	--	100	94.90	84.89	81.83

Table-3: Trend Percentage of total investment Position (%)

To see the total investment position, 2004 year data are taken as the base year for IBBL, EXIM, Al-Arafah and Shahjalal Islami banks and 2005 for ICB and 2007 for First Security bank ltd depending on the availability of information. Here we see that, in the initial level that is in 2004 the total deposit position of IBBL is the highest (tk. 75858.56 million) compare to others. For all the banks it's an increasing trend except ICB as the exception as its trend in negative.

6.4 Comparison in terms of investment to deposit ratio

Banks	2004	2005	2006	2007	2008
IBBL	0.90	0.90	0.88	0.99	0.94
EXIM	1.09	0.98	0.99	1.03	0.98
AL-Arafah	0.81	0.99	1.04	0.99	1.0
SJIB	--	--	--	0.11	0.10
FSIB	0.78	0.87	0.86	0.91	0.90
ICB Islamic Bank	--	0.77	0.83	0.89	1.134

Table-4: Investment to Deposit ratio of IBs

Here the investment to deposit ratio that is what is the relative worth of investment compare with deposit are shown. It's very crucial determinant of any bank's operational efficiency. Because bank takes deposits from their valued customers and it has to ensure security. Then on the basis of deposits it has to pay profit. And the ability to pay profit depends on bank's earnings. Investing in profitable sector is very important in this regard. In the above table, throughout the five years the ratio is very close to each other. In case of Shahjalal Islami Bank it's increasing. In 2008 it is more than 1 in case of ICB Islamic bank. That means, the bank has efficiently invested more than its deposits in investment sector. First Security Bank is really poor in this regard.

6.5 Comparison in terms of Profitability

Banks	2004	2005	2006	2007	2008
IBBL	1014	1126	1401	1458	2701
EXIM	-473	256	463	647	818
AL-Arafah	154.76	262.9	470.02	347.31	668.24
SJIB	381.8	555.34	650.29	930.84	1096.61
FSIB	--	-5,731	-4,308	-610.88	-776.74

Table-5: Net profit after Tax of IBs (Figures in tk. million)

To show the net profit after tax, 2004 year data have been considered as the base year for IBBL, EXIM & Al-Arafah and 2005 for ICB Islamic Bank Shahjalal Islami bank Ltd depending on the availability of information. Here we see that, net profit after tax position of IBBL is the highest compare to others and it is gradually increasing also for EXIM bank except ICB.

6.6 Comparison in terms of earning per share (EPS)

Banks	2004	2005	2006	2007	2008
IBBL	518.69	487.57	368.42	30.04	56.29
EXIM	60.82	48.61	43.38	34.76	40.95
Al-Arafah	26.36	38.78	55.02	25.10	48.29
SJIB	--	--	(16.28)	3.20	7.35
FSIB	(204.91)	38.63	49.50	28.81	36.41

Table-6: EPS of IBs

The above table shows the earnings available for common shareholders after meeting up all debts and obligation. It is calculated as the net profit after tax and preferred dividend divided by number of common share outstanding. Here we see that, it is really fluctuating for different banks and it's less than in case of First Security Bank in 2006. In case of Shahjalal & First Security Bank it is negative in 2006 & 2004 respectively.

6.7 Comparison in terms of Return on Asset (ROA, %)

Banks	2004	2005	2006	2007	2008
IBBL	1.10	1.0	1.03	0.84	1.27
EXIM	3.44	3.49	3.94	4.39	4.45
Al-Arafah	2.41	1.71	2.19	1.15	1.71
SJIB	--	--	0.99	0.47	--
FSIB	-4.85	1.76	2.17	2.60	2.22

Table-7: Return on Asset (ROA, %)

In the above table we see that, in this case EXIM bank is in the peak position with an increasing trend. In the year 2008 the ratio is 4.15%. That means by investing Tk. 1 asset it has generated Tk. 4.45. But in case of First Security Bank it is less than 1. That means the bank is not efficient regarding managing its assets to generate profits.

6.8 Comparison in terms of Return on Equity (ROE, %)

Banks	2004	2005	2006	2007	2008
IBBL	15.15	13.51	13.42	13.0	19.02
EXIM	27.27	29.03	20.89	23.03	21.28
Al-Arafah	16.17	21.55	27.81	17.05	24.70
SJIB	--	--	5.97	7.11	--
FSIB	-176.07	34.46	38.44	23.21	25.58

Table-8: Return on Equity of IBs

Here the finding depicts that the ROE of the IBBL is in a consistent manner and it has sharply increased in 2008. But in case of Shahjalal Islami Bank it is in fluctuating trend. In year 2006 it was 38.44%. That means by using Tk. 1 of shareholders' equity it has generated Tk. 38.44 as return. In case of First Security Bank it shows very poor compared to others banks.

6.9: Regression Analysis of the performance of Islamic Banks in Bangladesh

In this section, the statistical tool of regression analysis[3] has been used to thoroughly analyze and evaluate performance of Islamic banks in Bangladesh. The multiple regressions are developed by taking deposits and investments as two independent variables and Net Profit after Tax (NPAT) as the dependent variables of the Islamic banks.

Regression -run for IBBL:
Coefficients (a):

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-712.500	551.623		-1.292	.326
	Deposit	.053	.028	3.569	1.910	.196
	Investment	-.039	.027	-2.694	-1.441	.286

a Dependent Variable: NPAT

In this coefficient table there are two types of regression equation one is standardize and another is un-standardized.

Standardized regression equation: $\hat{Y}=- a + \beta 1X1 + \beta 2X2 + €$

Here,

$\hat{Y}$= Net profit After Tax (Dependent Variable)

$\beta 1$= is the slope of X1

$\beta 2$= is the slope of X2

€= is the residual factors, which accounts for the variability in $\hat{Y}$ equation that cannot be explained by the linear effect of the two independent variables.

a= is constant.

$\hat{Y}$= -712.5+3.569X1-2.694X2+€

In the above equation these are found that there is a positive relationship between NPAT and deposit and negative relationship with investment. If deposit increases by Tk 1 it will increase net profit by Tk 3.569. If investment increases by Tk 1 then net profit will decrease by Tk 2.694. If investment and deposit are zero then net profit will be negative by Tk 712.5.

[3] Using SPSS software

In the same way, the regression model of Shahjalal Islamic Bank Limited is

$\hat{Y}$= 35.33-7.502X1 + 8.341X2 + €

And the above equation these are found that there is a positive relationship between NPAT and investment and negative relationship with deposit. If investment increases by Tk 1 it will increase net profit by Tk 8.341. If deposit increases by tk 1 then net profit will decrease by tk 7.502. If investment and deposit are zero then net profit will be still positive by tk 35.33.

The regression model of Al-Arafah Islami Bank Limited is

$\hat{Y}$= 91.2-2.116X1 + 3.000X2 + €

Here these are found that there is a positive relationship between NPAT and investment and negative relationship with deposit. If investment increases by Tk 1 it will increase net profit by Tk 3.00. If deposit increases by tk 1 then net profit will decrease by tk 2.116. If investment and deposit are zero then net profit will be still positive by tk 91.2.

The regression model of EXIM Bank Limited is as follows:

$\hat{Y}$= -72.079-1.147X1 + 2.129X2 + €

The regression model depicts that there is a positive relationship between NPAT and investment and negative relationship with deposit. If investment increases by Tk 1 it will increase net profit by Tk 2.129. If deposit increases by tk 1 then net profit will decrease by tk 1.147. If investment and deposit are zero then net profit will be negative by tk 72.079.

7. Problems and Challenges of Islamic Banks in Bangladesh

The systems of Islamic banking in the world have been facing a number of challenges. Side by side, the Islamic banking in Bangladesh is also facing numerous challenges. Firstly, they have not yet been successful in devising an interest-free mechanism to place their funds on a short-term basis. They face the same problem in financing consumer loans and government deficits [Aowal, 2004]. Secondly, the risk involved in profit-sharing seems to be so high that almost all of the Islamic banks in Bangladesh have resorted to those techniques of financing which bring them a fixed assured return. As a result, there is a lot of genuine criticism that these banks have not abolished interest but, they have, in fact, only changed the nomenclature of their transactions. Thirdly, the Islamic banks do not have the legal support of the Central bank in Bangladesh, do not have the necessary expertise and trained manpower to appraise, monitor, evaluate an audit the projects that are required to finance. As a result, they cannot expand despite having huge excess financial liquidity. The implementation of an interest-free banking in Banking raises a number of questions and potential problems which can be seen from the macro and micro operational point of view.

8. Prospects of Islamic Banking in Bangladesh

The growing trend of the Islamic banking market in Bangladesh shows that Bangladesh has huge potentials for the expansion of this type of banking systems. Islamic banks has diversified and extended portfolio for long term financing under Musharaka and Mudaraba principles of Islamic banking business. The IBs invest on the basis of Profit

and Loss Sharing (PLS) or only profit sharing in the project. Due to their Mudaraba and Musharaka principle people are more interested to transact with Islamic banks. Again if the government of the peoples republic of Bangladesh and the central bank of Bangladesh i.e., Bngladesh bank take initiative to establish separate body for Islamic banking operation, then this system will be more attractive to the customers. At present Islamic banks mainly operate their business in the urban areas. But they have the big opportunity to expand their business in the rural areas. Because most of the people live in the rural areas and their main profession is the farming. Here Islamic banks can join with the farmer on the basis of PLS system.

9. Findings and Conclusion

This paper finds the operational efficiencies achieved by the Islamic banks in Bangladesh in terms of their business trends like increasing trends in ROA and ROE. The regression models fit for the respective Islamic banks also promulgate that NPAT is dependent on the level of deposit collections but also strong enough to achieve the profitability as the larger value of the constant factor. This indicates that the Islamic banks rendering the Islamic banking services in Bangladesh are in sustainable position.

The study identifies that in Bangladesh there should have a strong Islamic banking and financial system. This is necessary of proper and advanced legal structure so that the Islamic banks can perform their activities smoothly. It should be mentioned that if the Islamic financial system, is to become truly liquid and efficient it must develop more standardized and universally (or at least widely) tradable financial instruments. The development of a secondary financial market for Islamic financial products is crucial if the industry is to achieve true comparison with the conventional system. It must also work hard to develop more transparency in financial reporting and accounting and ideally - a form of Islamic GAAP. Development if the whole sale and especially inter-bank and money markets, will be the key to Islamic finance growing outside its current little sphere of influence, and becoming a truly national invigorating force. All banks should build the long term bonding among them to raise the awareness among the prospective customer community.

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Appendix

Table-1
Total deposits Position

*** (Amounts are in Millions)**

Banks	2004	2005	2006	2007	2008
IBBL	87841	107779	132419	166325.29	200343
EXIM	19078	28319	35032	41547	57586
Al-Arafah	10108	11644	16775	23009	29690
SJIB	--	--	17591.045	23504.04	25854.51
FSIB	9092	12205	18091	22618	36484
ICB	--	23451	20610	17201	13014

Table-2
Total Equity Position

*** (Amounts are in Millions)**

Banks	2004	2005	2006	2007	2008
IBBL	6091	8331	10436	14958	18572
EXIM	1400	1912	3112	4043	4989
AL-ARAFAH	957	1220	1690	2038	2706
SHAHJALAL	340	848	1363	3041	4069
ICB	--	-3750	-8058	-8887	-2930
FIRST SECURITY	--	--	--	1134.29	2538.57

Table-3
Total Asset Position

*** (Amounts are in Millions)**

Banks	2004	2005	2006	2007	2008
IBBL	102149	122880	150253	191362	230879
EXIM	24356	33717	41794	51503	68446
AL-ARAFAH	12875	15337	21368	30182	39158
SHAHJALAL	9742	14448	21343	28347	45217
ICB	--	23211	18779	17464	19744
FIRST SECURITY	--	--	20448.67	26941.78	31239.39

Table-4
Total Deposit Position

*** (Amounts are in Millions**

Banks	2004	2005	2006	2007	2008
IBBL	87841	107779	132419	166325.29	200343
EXIM	19078	28319	35032	41547	57586
AL-ARAFAH	10108	11644	16775	23009	29690
FIRST SECURITY	--	--	17591.045	23504.04	25854.51
SHAHJALAL	9092	12205	18091	22618	36484
ICB	--	23451	20610	17201	13014

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The Dimensions Affecting the Adoption of Mobile Banking in Bangladesh

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Abstract: This study is based on the assumptions that there are dimensions that are affecting the adoption of Mobile Banking in Bangladesh. It is a descriptive study with the help of primary data and secondary data. Primary data is collected by structured questionnaires and secondary data collected from various secondary sources. Mobile Banking is a new dimension in the online banking functions of Bangladesh. Several factors are contributing to the development of Mobile Banking in Bangladesh. To find out the impact of dimensions of Mobile Banking in Bangladesh, the study conducted a regression analysis. The results of this analysis reveal strong evidence that among various dimensions: handset operability, convenience, and security are significantly affecting the adoption of Mobile banking in Bangladesh.

Keywords: Mobile banking, Financial Services, Personal Digital Assistant.

1.1 Introduction

In the financial services industry, the major changes brought about by developments in information technology involve particularly the link between consumers & firms, the generation of new service products (Devlin & Wright, 1995). New technologies create new markets & opportunities for the banking sector, thus managing & satisfying the customers in this new banking environment has become a key issue for the players in the industry (Jayawardhena & Foley, 2000).Technological innovation is a complex notion for various reasons, one of these being the generic breadth of the concept itself. In fact many kinds of technology & definitions of technology are applicable to the concept. Technology is defined as "the knowledge of the manipulation of nature for human purposes" (Betz, 1998). Carlell (2001) cites in her thesis (Joerges', 1998) definition of technology: technology is said to refer to "artificial things, and more particularly modern machines: artificial things that require engineering knowledge for their design & production, & perform a large amount of operations by themselves".

Electronic banking can be defined in various ways. In this article the term electronic banking is referred to a definition, which explains it as the provision of information & services by a bank to its customers via electronic wired or wireless channels, for example Internet, telephone, mobile phone or interactive television (Daniel, 1999). Mobile technologies for communications, for accessing the internet & for mobile commerce transactions are being adopted extremely rapidly; indeed, over the last few year's mobile

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devices have become the consumer product that has been most quickly adopted to date (Dholakia et al. 2003). Mobile banking (also known as M-Banking, m-banking, SMS Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS. With the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers. (http://en.wikipedia.org/wiki/Mobile_banking)

1.2 Mobile Banking in the World

Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is unbanked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank.

In Iran, banks such as Parsian, Tejarat, Mellat, Saderat, Sepah, Edbi, and Bankmelli offer the service. Banco Industrial provides the service in Guatemala. Citizens of Mexico can access mobile banking with Omnilife, Bancomer and MPower Venture. Kenya's Safaricom (part of the Vodafone Group) has the M-Pesa Service, which is mainly used to transfer limited amounts of money, but increasingly being used to pay utility bills as well. In 2009, Zain launched their own mobile money transfer business, known as ZAP, in Kenya and some other African countries.

Telenor Pakistan has also launched a mobile banking solution, in coordination with Taameer Bank, *under the label Easy Paisa, which was begun in Q4 2009. Eko India Financial Services, the business* correspondent of State Bank of India (SBI) and ICICI Bank, provides bank accounts, deposit, withdrawal and remittance services, micro-insurance, and micro-finance facilities to its customers (nearly 80% of whom are migrants or the unbanked section of the population) through mobile banking. (http://en.wikipedia.org/wiki/Mobile_banking)

1.3 Mobile Banking in Bangladesh

In March 2011, Dutch-Bangla Bank Limited (DBBL) has for the first time introduced its mobile banking service expanding the banking service from cities to remote areas. Bangladesh Bank Governor Atiur Rahman inaugurated the service by depositing Tk 2,000 and withdrawing Tk 1,500 through Banglalink and Citycell mobile networks in Motijheel area. Bangladesh Bank has already allowed 10 banks to initiate mobile banking. Of them DBBL kicked off first. By going to the DBBL-approved Citycell and Banglalink agents throughout the country the subscribers on showing necessary papers and payment of a fee of Tk 10 can open an account. (http://idgbgroup.com/?p=23) GP is also providing mobile-banking service by linking with DBBL and Standard Chartered bank. A historic milestone for Bangladesh is the launch of mobile remittance, the first ever for Bangladesh as well as for South Asia. Banglalink in collaboration with Dhaka bank ltd (DBL) and eastern bank ltd (EBL) jointly launched the service.

AKTEL, a leading cellular service provider, with BRAC Bank Ltd has launched a service titled 'Mobile Banking Service'. The alliance focused on the issues of business relationship between AKTEL and BRAC Bank through 10 mobile banking services to facilitate their customers. The initiative will create a business relationship between the two organizations through mobile banking services such as SMS banking, SMS bill payment services for post-paid and top-up for pre-paid customers, bill collection via bill pay machine and ATM machines, and debit and credit card for AKTEL post-paid customers. (http://www.bizbangladesh.com/business-news-2195.php)

1.4 Objectives of the Research

Broad Objective:

The broad objective of the research is to identify the dimensions affecting the adoption of mobile banking in Bangladesh and analyze these dimensions by using sophisticated statistical tools.

Specific objectives:

Specifically objectives of the research are:

- To explain how the demographic variables explain the adoption of mobile banking in Bangladesh.
- To identify the importance of each dimension that affects the adoption of mobile banking in Bangladesh.
- To identify drivers & inhibitors of mobile banking in Bangladesh.
- To make recommendation on the adoption of mobile banking in Bangladesh.

1.5 Literature Review

Mobile banking has until recently (2010) most often been performed via SMS or the Mobile Web. Apple's initial success with iPhone and the rapid growth of phones based on Google's Android (operating system) have led to increasing use of special client programs, called apps, downloaded to the mobile device (http://en.wikipedia.org/wiki/Mobile_banking). In addition to offering branch-based services via mew delivery channels, technology allows banks to offer new value-added services which are only available in an electronic environment, such as personalized financial information menus, short messaging services (SMS) alerts, real time brokerage. The existing & envisaged changes in the technologies of service delivery have the potential to affect the full range of retail services (Vesla, 2000). Mobile phone operators have identified m-banking/m-payments systems as a potential service to offer customers, increasing loyalty while generating fees and messaging charges.

The banking industries of Bangladesh at present have been matured to a great extent than earlier period. It has developed superb image in their various activities including electronic banking. Now modern banking services have been launched by some multinationals and new local private commercial banks. Electronic banking is one of the most demanded and latest technologies that has been introduced in the banking sector (Shamsuddoha, 2008).The final phase in the adoption of an innovation is that of routinisation, which occurs when the innovation has become incorporated to regular activities of the adopter Rogers (1975. The present results reflect the fact that mobile banking services are at a relatively early stage in the path of diffusion. It is often the case

that the first adopters of an innovation are motivated simply by the desire to get their hands on the latest & greatest innovation; the stimulus is curiosity regarding anything that is truly brand new. Mobile banking has not yet gone beyond this phase, indicating clearly that mobile banking services are not yet fully institutionalized; they have not entirely become part of the ongoing practice & way of life of the adopters.

Adopting m-banking services, banks in developing countries are faced with strategic options between the choice of delivery channels and the level of sophistication of services provided by these delivery channels (Ahmed and Islam, 2008).Banks will reap the benefits of IT truly and totally, if and only if they pay adequate attention to technological progress as well as efficiencies on the input and output sides (Chandrasekhar and Sonar, 2008).

Academic research on the factors affecting the adoption of mobile banking has been sparse, and has tended to be limited in the scope (Deutsche Bank Research, 2002).It was for this reason that, in attempting to close the knowledge gap, the initial approach largely involved extrapolating from knowledge acquired about other modes of electronic banking. Service quality satisfaction and informational trust had important mediating effects on the Balance score card performance process (Islam and Yang, 2009). These two mediating roles explain that, when an institution creates and raises the levels of service quality satisfaction and informational trust, the results lead to a favorable customer interaction relationship and thus could help the institution achieve higher levels for Balance score card performance measure. Brown, Cajee, Davies, and Stroebel (2003) used a statistical model combining elements of the theories of diffusion of innovation (Rogers, 1983) and of planned behavior (Taylor & Todd, 1995) to predict mobile banking take-up in South Africa, finding high levels of perceived risk to be a major barrier to further adoption. To date, it is one of the few evaluations of an m-banking/m-payments system in the developing world explicitly applying a theoretical lens.

a. Convenience:

The market potential exists for mobile banking which would enable customers to bank virtually anywhere, and at any time. Wireless devices may outpace personal computers in market penetration, and many are sophisticated enough to serve as access points to the internet & to private networks. They may even function as handheld PCs in their own right (Kiesnoski, 2000).

b. Cost:

Virtual banking has given more access to the socioeconomic lower class. We must thank for technological induction, the bringing of cell phones to the masses. SMS have been a way to query into balances, check payments and pay for the telephone service. Hence, we can delve into the massive use together with community terminals. We are betting on mobile banks for reasons of cost and modernization. The use of smart phones paves the way. Banks will be embarked on the development of mobile payment. There can be no doubt that social networks are interesting and force us to develop new channels. These are the steps to heighten the use of banks. The underprivileged will be the most benefited from these low-cost channels (http://english.eluniversal.com/2011/05/16/virtual-banking--a-way-for-inclusiveness.shtml). For as long as they've been developing applications for mobile devices, bankers have wondered where the payoff is for this effort. Some see the

mobile channel as an inexpensive way to take care of routine matters that might otherwise have to be taken care of by call center or branch staff. Some view it as a necessity – smartphone-toting consumers demand it and will go elsewhere to find it if their bank doesn't offer mobile banking. Some banks hope to charge consumers for mobile banking services. And some hope to reap merchant fees with creative e-coupon offers. (http://www.americanbanker.com/bulletins/-1037534-1.html)

c. Reliability:

Another challenge for the CIOs and CTOs of the banks is to scale-up the mobile banking infrastructure to handle exponential growth of the customer base. With mobile banking, the customer may be sitting in any part of the world (true anytime, anywhere banking) and hence banks need to ensure that the systems are up and running in a true 24 x 7 fashion. As customers will find mobile banking more and more useful, their expectations from the solution will increase. Banks unable to meet the performance and reliability expectations may lose customer confidence. There are systems such as Mobile Transaction Platform which allow quick and secure mobile enabling of various banking services. Recently in India there has been a phenomenal growth in the use of Mobile Banking applications, with leading banks adopting Mobile Transaction Platform and the Central Bank publishing guidelines for mobile banking operations (http://en.wikipedia.org/wiki/Mobile_banking).

d. Security:

Security of financial transactions, being executed from some remote location and transmission of financial information over the air, is the most complicated challenge that need to be addressed jointly by mobile application developers, wireless network service providers and the banks' IT departments.

The following aspects need to be addressed to offer a secure infrastructure for financial transaction over wireless network:

1. Physical part of the hand-held device. If the bank is offering smart-card based security, the physical security of the device is more important.
2. Security of any thick-client application running on the device. In case the device is stolen, the hacker should require at least an ID/Password to access the application.
3. Authentication of the device with service provider before initiating a transaction. This would ensure that unauthorized devices are not connected to perform financial transactions.
4. User ID / Password authentication of bank's customer.
5. Encryption of the data being transmitted over the air.
6. Encryption of the data that will be stored in device for later / off-line analysis by the customer. Source: (http://en.wikipedia.org/wiki/Mobile_banking).

e. Confidentiality:

XMS technology is an easy-to-use mobile solution that rides over the widely available SMS based infrastructure. It uses the industry-standard AES encryption algorithm that ensures confidentiality. XMS Mobile Banking creates a new secure channel for interaction between a bank and its customers. Digitally signed and encrypted messages

are used for notifications, account access, funds transfers and mobile based payments. Like ATM operations, XMS Mobile Banking is based on two-factor authentication that meets bank security requirements. XMS Mobile Banking is a virtual ATM on mobile handsets. Source: (http://www.mynetsec.com/products/xms-mobile-banking)

f. Network:

The uptake of mobile banking will probably be further encouraged by the improvements in mobile service & application space anticipated with the arrival of 2.5G & 3G networks. Those improvements include the ability of mobile devices to provide location-specific information & new means of personalization, together with enhanced availability & immediately of service. It is this immediacy that is likely to contribute most to the predicted shift from wired internet connections to wireless mobile services in banking (Wah, 1999).

g. Handset operability:

There are a large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support Java ME and others support SIM Application Toolkit, a WAP browser, or only SMS.Initial interoperability issues however have been localized, with countries like India using portals like R-World to enable the limitations of low end java based phones, while focus on areas such as South Africa have defaulted to the USSD as a basis of communication achievable with any phone.

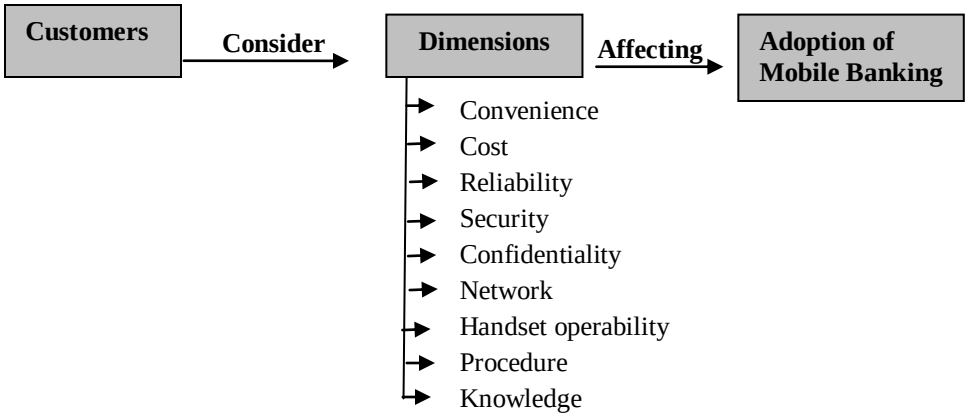
The desire for interoperability is largely dependent on the banks themselves, where installed applications (Java based or native) provide better security, are easier to use and allow development of more complex capabilities similar to those of internet banking while SMS can provide the basics but becomes difficult to operate with more complex transactions. On January 2009, Mobile Marketing Association (MMA) Banking Sub-Committee, chaired by CellTrust and VeriSign Inc., published the Mobile Banking Overview for financial institutions in which it discussed the advantages and disadvantages of Mobile Channel Platforms such as Short Message Services (SMS), Mobile Web, Mobile Client Applications, SMS with Mobile Web and Secure SMS. (http://en.wikipedia.org/wiki/Mobile_banking).

h. Procedure:

Complexity is the degree to which an innovation is perceived as being difficult to use & understand. It has been often measured in relation to perceptions about the purpose of the respective4 innovation its intended use & ease with which it can be used (Gerrard & Cunningham, 2003). Complexity is also a subjective concept & not an innate attribute of a product or service, and can be perceived differently by different individuals (Agarwall & Prasad, 1997)

i. Knowledge:

In conducting a financial transaction via a mobile channel is required some sorts of special knowledge or skills. Previous studies on technology-based innovations have indicated that more complex an innovation is to use, & the greater the skill & effort needed for adopting it, the less likely that it will be adopted (Tan & Teo, 2000).



Source: Author's construct

Typically, the adoption of mobile banking in Bangladesh depends on the following variables:

❒ Convenience	❒ Network
❒ Cost	❒ Handset operability
❒ Reliability	❒ Procedure
❒ Security	❒ Knowledge
❒ Confidentiality	

1.6 Research Design

- **Research Type:** Descriptive
- **Types of Data:** Primary and Secondary.
- **Sampling Design Process:** I am using a questionnaire for both male & female users.

Target Population	Account holders of the specific four banks - Prime Bank; Dutch-Bangla-Bank-Limited, National Credit and Commerce bank Limited, and Mutual Trust Bank Limited.
Sampling Technique	Convenience Sampling.
Sample Size	200
Sampling frame	Directory (list of banks)
Execution	The sample of convenient elements will be collected. The selection of sampling units is left primarily to the interviewer.

- **Method of Administering Questionnaire:** Personal interview.
- **Types of questions asked:** Structured Questions (Multiple Choice Questions & Dichotomous Questions).

- **Average interviewing time:** 15 minutes.
- **Scaling Technique:** 9 point Likert scale.
- **Field work & data collection:** For the research and data analysis purposes we have collected the needed data through survey method under which we adopted the personal interviewing technique. we were actively involved in the data collection.

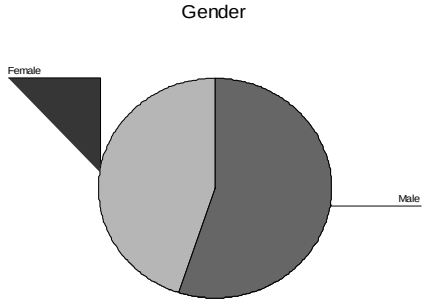
1.7 Data Analysis and Discussion

The following methods were used to analyze the collected data:

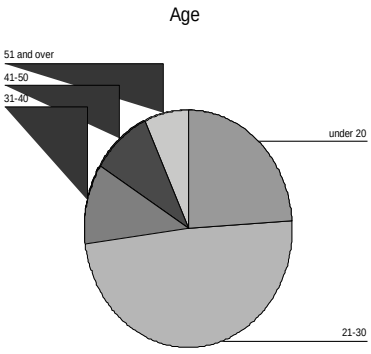
- Frequency tables & pie charts
- Regression Analysis

Frequency tables & pie charts:

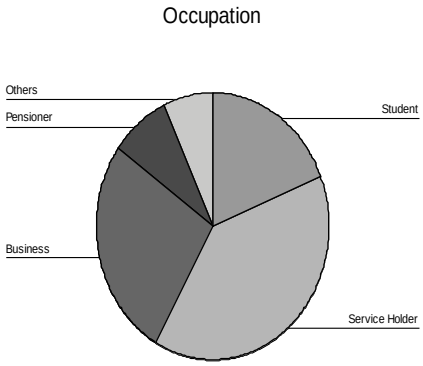
The survey is conducted with some basic information of the respondents. Respondents were asked about their age, income, type, and occupation. Their information with percentages is found out from the frequency distribution, and these are shown in pie charts.



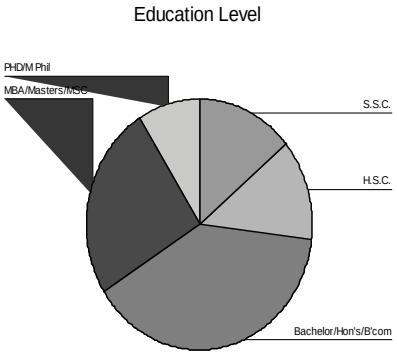
The graph is from frequency table of gender. This graph contains different categories of the variable and indicates the percentage of each value. As can be seen of the 200 respondents who participated in the survey, 55% percent respondents are male and 45% are female.



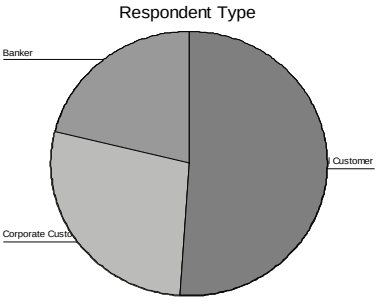
The graph is from frequency table of age. This graph contains different categories of the variable and indicates the percentage of each value. As can be seen of the 200 respondents who participated in the survey, 24% percent respondents are under 20, 49% of the respondents are 21-30, 11% respondents are 31-40, only 9% respondents are 41-50, and 7% are 51-over years old.



The graph is from frequency table of Monthly income. This graph contains different categories of the variable and indicates the percentage of each value. As can be seen of the 200 respondents who participated in the survey, 21% percent respondents have income less than tk 15000. 39% of the respondents have income tk 15,000 to 30,000. 17% respondents have income tk 30,001 to tk 45,000. And, only 12% respondents have the income tk 45,001 to tk 60, 000. 11% respondents have income of tk 60, 001 and above.



The graph is from frequency table of respondent type. This graph contains different categories of the variable and indicates the percentage of each value. As can be seen of the 200 respondents who participated in the survey, 14% respondents have passed SSC, 13% respondents have passed HSC, 39% respondents have completed Bachelor/Hon's/BA/B'Com, 25% respondents have completed MBA/MSC/MA/M'Com & only 9% respondents have completed PHD/M Phil.



The graph is from frequency table of respondent type. This graph contains different categories of the variable and indicates the percentage of each value. As can be seen of the 200 respondents who participated in the survey, 51% percent respondents are general customers.28% of the respondents are corporate customers. 21% respondents are bankers.

Regression Analysis:

The purpose of this analysis is to measure the relative influence of each independent variable on the dependent variable.

Hypotheses

H_0: The coefficient of multiple determinations in the population is zero.

H_1: The coefficient of multiple determinations in the population is not zero.

Variables

Dependent variable: The adoption of mobile banking in Bangladesh

Independent variables: Convenience, cost, reliability, security, confidentiality, network, handset operability, procedure & knowledge.

Model

The regression model will be as follows:

$$\mathbf{Y = b_0+b_1Cn+b_2Co+b_3Ri+b_4Sc+b_5Cf+b_6Nw+b_7Ho+b_8\ Pr+b_9Kw+ei}$$

Where,

Y= Adoption of mobile banking in Bangladesh Cn = Convenience Co = Cost Ri= Reliability Sc = Security Cf = Confidentiality	Nw = Network Ho = Handset operability Pr = Procedure Kw = Knowledge ei = Error

FINDINGS:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780[a]	.609	.575	.439

a. Predictors: (Constant), Knowledge, Security, Reliability, Confidentiality, Cost, Network, Handset operability , Convenience

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.616	8	6.827	37.188	.000(a)
	Residual	35.064	91	.184		
	Total	89.680	199			

a. Predictors: (Constant), Knowledge, Security, Reliability, Confidentiality, Cost, Network, Handset operability , Convenience

[[[

b. Dependent Variable: Adoption of Mobile Banking in BD

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.345	.362		3.719	.251
	Convenience	.386	.050	.852	7.783	.001
	Cost	-.133	.044	-.256	-2.997	.078
	Reliability	-.030	.033	-.072	-.915	.382
	Security	.003	.032	.006	.091	.039
	Confidentiality	-.068	.045	-.129	-1.527	.185
	Network	-.141	.030	-.395	-4.686	.604
	Handset operability	.255	.047	.481	5.385	.008
	Knowledge	-.153	.039	-.295	-3.949	.222

a. Dependent Variable: Adoption of Mobile Banking in BD

Explanation:

Interpretation of R:

Here, the Value of R = 0.780

There is a high degree of positive correlation among the independent & dependent variables.

Comment on model fitting:

Here, the value of R^2 = 0. .609 or 60.9% or 61%

61% variation in the dependent variables can be explained by the regression model.

Interpretation of Adjusted R^2:

Here, the value of adjusted R^2 = 0.575 or 57.5% or 58%

Adjusted R^2 suggested that, addition of the other independent variables do not make a contribution in explaining the variation in the dependent variable.

Regression Equation:

The adoption of mobile banking in Bangladesh = 1.345+ .386 (Convenience) + (-.133) (Cost) + (-.030) (Reliability) + .003 (Security) + (-.068) (Confidentiality) + (-.141) (Network) + .255 (Handset operability) + (-.153) (Knowledge)

Comment on Significance:

It can be said that, the adoption of mobile banking in Bangladesh is dependent on various variables/dimensions like - convenience, cost, reliability, security, confidentiality, network, handset operability, procedure & knowledge. Convenience (0.001), security (0.039) & handset operability (0.008) are highly significant.

1.8 Concluding Remarks

Mobile Banking is the evolutionary step after internet banking. It is an additional service bolted on top of an existing solution, making access to services more immediate and reducing customer reliance on branch infrastructure or access to the internet. As customer confidence increases over the security, it is expected that mobile phones will be the most preferred and convenient device for conducting banking transactions and emerge as one for the major payment channels. Mobile banking through an SMS based service would require the lowest amount of effort, in terms of cost and time, but will not be able to support the full breath of transaction-based services. South Asia is one of the fastest growing regions in terms of mobile phone subscribers. The mobile phones are already transforming lives of people here for the better by enabling people to 'leapfrog'. The large numbers of Bangladeshi people are facing many harassments duo to the lack of modern banking modern banking facilities. Bangladesh Bank has already allowed 10 banks to initiate mobile banking. Of them DBBL kicked off first.

Financial institutions are now redefining banking and as such Mobile Banking has come in handy in the market. This is basically the provision of banking and financial services with the help of mobile devices. This platform is changing to offer highly interactive mobile applications that meet the needs of today's customers. The mobile channel is moving beyond showing customers a static picture of their finances as banks begin to leverage the knowledge they already have of their customers. This makes it possible to provide an end-to-end approach that allows the user to initiate a process in one channel and seamlessly continue it in another one, having access to the same information and the same customer experience and secure in the knowledge that the service provider is always working with the same data.

To carry out the objectives, we conducted the following statistical analysis with the help of SPSS: frequency tables, pie charts & multiple regression analysis. Through the research we found out that there is a high degree of positive correlation among the independent & dependent variables. It can be said that, the adoption of mobile banking in Bangladesh is dependent on various variables like - convenience, cost, reliability, security, confidentiality, network, handset operability, procedure & knowledge. Among these dimensions convenience, security & handset operability are highly significant.

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Measuring Service Quality: A Comparative Assessment Based on Customer Service of HSBC and DBBL

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Abstract: *Commercial banks are playing a vital role to provide various financial services to its customers. In the modern competitive banking arena, quality of customer service is a burning issue as the success of obtaining customers' satisfaction towards its services extensively depends on the service quality of the bank. This paper tries to measure the service quality of customer service of two commercial banks, Hongkong and Shanghai Banking Corporation(HSBC) and Dutch Bangla Bank Ltd(DBBL) with the application of standardized SERVQUAL instrument developed by Parasuraman and Ziethmal. Multivariate analytical technique like factor analysis was used to assess the expected and perceived service quality factors. Results show that some variables of the 19 variables of the SERVQUAL model are critical for the banks' success and they also differ for the selected banks (HSBC &DBBL). For HSBC, the set of variables of reliability and that of responsiveness for DBBL are found more critical towards their customer satisfaction.*

Keywords: SERVQUAL model, Customer satisfaction, Reliability, Responsiveness, Assurance, Empathy, Tangibles.

1.1 Introduction: Customers are the key stakeholders for the organizations. The Customer Service Centre adds a new dimension to banking where customers can not only avail the ATM, Easy Pay, Phone banking and Website services but can also consult the Customer service officers seven days a week to assist them in appling for loan products, opening new accounts and providing detailed information on all other products and serviecs of the bank.Along with the different dimensions of the services satisfaction of the customers comes from the quality of services. In the modern customer centric competitive arena, satisfaction, quality and loyalty prove to be the key factors reciprocally interrelated in a causal, cyclical relationship. The higher the (perceived) service quality leads to the more satisfied and loyal customers (Petruzzellis, D'Uggento and Romanazzi, 2006). In particular, financial institutions (i.e. banks) realized the strategic importance of customer value and seem to be continuously seeking innovative ways to enhance customer relationships.

In fact, as the offers of many financial services are very similar and slightly differentiable, loyal customers have a huge value, since they are likely to spend and buy more, spread positive word-of mouth, resist competitors' offers, wait for a product to become available and recommend the service provider to other potential customers.

In late 1980s, Parasuramam et al., (1985, 1991, 1994) explained quality as a gap between customers' expectations and feelings about the services they are receiving by any instituions or organization. Even though there is no single definition of quality, they all

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have a single focus on how users look at it (Fiji, 1994; Parasuraman, 1985; Teas, 1994; Zeithaml, 1988; Khader, 1997). In 1996, Ramaswamy identified three different sets of measures for service quality that a company should be concerned with (Ramaswamy, 1996):

Service performance measures, primarily internally focused and evaluate the current performance and hence it is ensured that it continues to be reliable to meet the designed specification;

Customer measures, internally and externally focused and aimed at assessing the impact of the service performance on customers;

Financial measures, which are indicators of the financial health of the organization.

The above theories and suggestions by other researchers such as, Liljander(1995), Cadottee, Woodruff and Jenkins (1983, 1987), Bolfing and Woodruff (1988), Prakash and Lounsbury (1984), and Swan (1988) suggest many possible comparison standards including predicted service, ideal service, excellent service, desired service, deserved service, needs and values, cultural norms, promises, adequate service, best brand norm, brand norm, product type norm, favorite brand' model, comparative expectations, equity and fairness. However, SERVQUAL only incorporates a rough aggregated mixture of a selection of these.

Among the contemporary instruments for measuring service quality of any institutions or organization, SERVQUAL has got the attention by the researchers in various fields like insurance, bank, education, Information Technology (IT), etc. as it deals with users views regarding services (Parasuraman et al., 1985, 1991, 1994). Although, a separate formality dimension in bank and restaurant service was identified by the researchers, SERVQUAL is considered useful to measure the service quality of the bank (Witkowski, et al, 2001). Parasuraman and Zeithaml's SERVQUAL includes five dimensions of service that are relevant for measuring the service quality of banks by its customers. The dimensions are reliability (ability to perform the promised service, dependably and accurately), tangibility (physical facilities, equipment and appearance of personnel), responsiveness (helpful mentality customers and provide prompt service), assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence) and empathy (caring individualized attention the service provider gives its customers.

These five dimension are briefly described below (CF Zeithaml, Bitner, and Gremler, 2006,pp. 116-120):

1. Reliability: It is defined as the ability to perform the promised service dependably and accurately. In its broadest sense, reliability means that the service provider delivers on its promises- promises about delivery, service provision, problem resolution, and pricing. Customers want to do business with companies that keep their promises, particularly their promises about the service outcomes and core service attributes. Of the five dimensions, reliability has been consistently shown to be the most important determinant of perception of service quality among U.S. customers.
2. Responsiveness: It is the willingness of the service provider to help customers and to provide prompt service. This dimension emphasizes attentiveness and promptness in dealing with customer requests, questions complaints, and

problems. Responsiveness is communicated to customers by the length of time they have to wait for assistance, answers to question, or attention to problems. Responsiveness also captures the notion of flexibility and ability to customize the service to customer needs.

3. Assurance: Assurance is defined as employees' knowledge and courtesy and the ability of the company and its employees to inspire trust and confidence. This dimension is likely to be particularly important for services that the customers perceive as involving high risk and\ or about which they feel uncertain about their ability to evaluate outcomes- for example, banking, insurance, brokerage, medical, and legal service.
4. Empathy: Empathy is defined as the caring, individualized attention the firm provides its customers. The essence of empathy is conveying, through personalized or customized service, that customers are unique and special. Customers want to feel understood by and important to firms that provide service to them. Personnel at small service firms often know customers by name and build relationships that reflect their personal knowledge of customer requirements and preferences. In business services, customers want supplier firms to understand their industries and issues.
5. Tangibles: Tangibles are defined as the appearance of physical facilities, equipment, personnel, and communication materials. All of these provide physical representations of images of the service that customers, particularly new customers, will use to evaluate quality. Service industries that emphasize tangibles in their strategies include hospitality services where the customer visits the establishment to receive the service, such as restaurants and hotels, retail stores, and entertainment companies.

The above mentioned five dimensions of service quality represent how consumers organize information about service quality in their minds. On the basis of exploratory and quantitative research, these five dimensions were found relevant for banking, insurance, appliance repair and maintenance, securities brokerage, long-distance telephone service, automobile repair service, and others. Customers use all of the dimensions to perceive the service quality with some exception (Zeithaml and Bitner, 2003, p. 93).

On the other hand, after two years, Zeithaml, Parasuraman, and Berry (1990) revised the above mentioned five dimensions and instead proposed that the following ten generic dimensions are used by customers in evaluating quality of service:

1. Credibility: Trustworthiness, believability, and honesty of the service provider.
2. Security: Freedom from danger, risk, or doubt.
3. Access: Approachability and ease of contract.
4. Communication: Listening to customers and keeping them informed in Language they can understand.
5. Understanding the customers: Making the effort to know customers and their needs.
6. Tangibles: Appearance of physical facilities, equipment, personnel, and communication materials.

7. Reliability: Ability to perform the promised service dependably and accurately.
8. Responsiveness: Helpful mentality customers and provide prompt service.
9. Competence: Possession of the skills and knowledge required to perform the service
10. Courtesy: Politeness, respect, consideration, and friendliness of contact personnel.

The first five dimensions and the revised ten dimensions are the two sides of the same coin except access and security, because the last ten dimensions are derived from the frist five dimensions, except access and security.

However, logic suggests that the absolute as well as relative importance of these dimensions in determining perceptions of service quality will vary from service to service, from customer to customer, from consumption situation to consumption situation, and from culture to culture (Zeithaml, Bitner, and Gremler, 2006, p.23).

Bhuiyan, Islam and Ahamed (2009) conducted a study on "The service quality in retail banking of private commercial banks in Bangladesh" that focused on identifying the service quality of retail banking in Bangladesh. The result shows that the reliability and responsiveness are the most important dimensions of service quality that are to be properly addressed by the private commercial banks in Bangladesh in terms of retail banking. Other service quality dimensions such as assurance, empathy and tangibles are hardly accepted by the private bank customers.

Therefore, it is reviewed that the research previously done on the service quality in Retail Banking of private commercial banks in Bangladesh focused on mainly reliability and responsiveness other service quality dimensions such as assurance, empathy and tangibles. So the researchers in this study have measured the service quality of customers' service department (CSD) of HSBC and DBBL on the basis of the above mentioned five dimentions of SERVQUAL model suggested by parasuraman and Zeithmal.

1.2 Objective of the study:

The study aims at to measure the service quality and to make a comparative assessment based on the customer service departments of several branches of HSBC and DBBL.

This study strives

1. to find out the service quality of HSBC and DBBL on five customer satisfaction factors on the basis of SERVQUAL model such as: reliability, tangibility, responsiveness, assurance, and empathy.
2. to find out the most sensitive service quality factor/s for HSBC and DBBL with the help of Factor Analysis.
3. to find whether the service quality of the banks differs with the occupation of their customers.
4. to compare the service quality by analyzing the result of the survey.
5. to suggest some ways to improve the customer satisfaction of the surveyed banks.

1.3 Research Methodology

3.1 Type of the research:

The study is an empirical research in nature.

3.2 Data Sources:

Data and information required for the research were collected from both primary and secondary data sources. Primary source of data includes surveying the customers structured questionnaire. To develop the theoretical background of the study secondary data were collected from journals, and different websites.

3.3 Variables Covered:

Well accepted SERVQUAL model has been used in the study for measuring service quality of the two selected banks, HSBC and DBBL. The model has covered five factors and 19 variables under those five factors. The model with the factors and variables covered is shown in (Appendix; Table 1).

3.4 Sample:

For conducting the study simple random sampling has been followed to survey the customers of different branches of the selected banks (DBBL and HSBC) while the different branches of banks were selected purposively. It should be mentioned that a total of 150 structured questionnaires were provided among the bank customers with feedback of 103 questionnaires. Fifty five responses out of 103 came from the HSBC and the rest of responses came from DBBL. The survey was conducted in May 2010.

3.5 Survey Instrument:

A structured questionnaire was developed having five (5) facets of customer service satisfaction which was addressed through 20 statements to which the respondents were asked to react using a five–step Likert scale ranging from strongly disagree (1) to strongly agree (5) . At the end of questions, an open ended question was added for the customer to deliver their recommendation, suggestion regarding bank services if any.

3.6 Data Analysis

Data entry was done in SPSS 12.0 data editor and analyzed under some specific hypothesis. Statistical tools like percentage, mean, standard deviation, correlation and chi-square were used.

Different statistical tools have been used to assess and interpret data. For example, Cross-tabulation was used to analyze the relationship of occupation with the some selected service satisfaction factors of the model with the overall satisfaction of customers. To test the statistical association between the considered variables, null and alternative hypothesis are designed in according to the following format:

H0: There is no significant association between the variables.

H1: There is significant association between the variables.

To analyze and compare the customer service quality of the two selected banks 19 variables under 5 factors of the SERVQUAL model has been surveyed where ‘Occupation of the respondents’ is one of the independent variables which has been

checked against some of the variables of the model to test whether they are statistically interrelated or not.

The descriptive analysis and frequency analysis of the variables under different influential factors have been conducted. Factor analysis has been conducted for the selected banks to find out the factors critical for maintaining and increasing the satisfaction level of the customers.

1.4.1 Results & Discussions:

1.4.2 Relationship between Occupation of the respondents and variables of the model:

HSBC Bank:

On the basis of the Chi-Square values, we accept the null hypothesis that is there is no significant association between Occupation of the respondents' and Promises to do something in time. Chi-Square = 4.71 with 6 degrees of freedom and P = .582> .05 means that bank employees keep their promise irrespective of the types of the profession of the bank customers. Table: 1.1 indicates that most of the variables have no significant relationship with the occupation of the respondents that is bank employees are equal on their quality of service to all of its customers. But Occupation of the respondents and Department provides its service in time with Chi-Square value 9.455 with degrees of freedom 4 and P=.051 are significantly related that is providing timely service of HSBC bank varies with the type of the occupation of its customers. 34% of the service holder customers have agreed that they get service in time and 54% is neutral in this issue. 100% of the surveyed business customers have agreed that HSBC provide service in time to them. Regarding keeping customer informed of different issues significant relationship is found with the type of the occupation of the respondents surveyed where students are found strongly satisfied and about 63% business customers have agreed with some (15%) disagreed service holders.

Table: 1.1: Hypothesis testing for the association between variables following cross - tabulation

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	total	Pearson Chi-Square	Degrees of freedom	Asymp. Sig. (2-sided	Decision
Occupation of the respondents* Promises to do something in time	Services	1	3	10	19	3	35	4.710(a)	6	.582	Accept
	Business	0	0	3	8	0	11				
	Students	0	0	1	6	0	7				
Occupation of the respondents* Individual attention	Services	2	2	9	20	2	35	8.372(a)	8	.398	Accept
	Business	0	0	6	5	0	11				
	Students	0	0	5	2	0	7				

Occupation of the respondents* Sincere interest in problem solving	Services		1	9	19	6	35	5.037(a)	6	.539	Accept
	Business		0	2	8	1	11				
	Students		0	2	2	3	7				
Occupation of the respondents * Department provides its service in time	Services			12	18	5	35	9.455(a)	4	.051	Reject
	Business			0	11	0	11				
	Students			2	5	0	7				
Occupation of the respondents* Material Associated	Services	2	2	16	10	5	35	7.302(a)	8	.504	Accept
	Business	0	0	4	7	0	11				
	Students	0	1	3	2	1	7				
Occupation of the respondents * Preferrence towards customer welfare	Services	1	2	20	11	1	35	3.136(a)	8	.926	Accept
	Business	0	0	6	5	0	11				
	Students	0	1	4	2	0	7				
Occupation of the respondents * Department keeps customer informed	Services		5	13	13	4	35	15.404(a)	6	.017	Reject
	Business		0	4	7	0	11				
	Students		0	1	2	4	7				
Occupation of the respondents* Employees give prompt service	Services	1	3	11	17	3	35	4.962(a)	8	.762	Accept
	Business	0	0	3	7	1	11				
	Students	0	1	0	5	1	7				
Occupation of the	Services	1	3	4	23	4	35	8.309(a)	8	.404	Accept
	Business	0	0	4	7	0	11				

respondents* Employees willing to help	Students	0	0	1	4	2	7				
Occupation of the respondents* feel safe transaction	Services	1	2	6	22	7	35	4.290(a)	4	.368	Accept
	Business	0	0	2	9	0	11				
	Students	0	0	0	5	2	7				
Occupation of the respondents* Courteous	Services		3	10	18	4	35	4.309(a)	6	.635	Accept
	Business		0	4	7	0	11				
	Students		0	2	5	0	7				

DBBL Bank:

Alternative hypothesis is found accepted regarding the association between occupation of the respondents' and promises to do something in time with Chi-Square = 2.274 with 8 degrees of freedom and P = .95, revealing that bank employees keep their promise irrespective of the types of the profession of the bank customers. Table: 1.2 indicates that all of the variables has no significant relationship with the occupation of the respondents that is bank employees are equal on their quality of service to all of its customers.

Table: 1.2: Hypothesis testing for the association between variables following cross – tabulation

		Strongly disagree	Disa gree	Neutral	Agree	Strongly agree	total	Pearson Chi-Square	Degr ees of freed om	Asymp. Sig. (2-sided	Decesion
Occupation of the respondent* Promises to do something in time	Services	1	2	11	19	2	35	2.724(a)	8	.95	Accept
	Business	0	0	1	4	1	6				
	Students	0	0	2	4	1	7				
Occupation of the respondent* Individual attention	Services	4	18	11	2	35	4	9.178(a)	6	.164	Accept
	Business	0	0	5	1	6	0				
	Students	0	3	3	1	7	0				
Occupation of the respondent* Sincere interest in problem solving	Services	5	6	22	2	35		8.622(a)	6	.196	Accept
	Business	0	3	2	1	6					
	Students	0	2	3	2	7					

Occupation of the respondent* Department provides its service in time	Services	2	14	16	3	35	2	4.876(a)	6	.560	Accept
	Business	0	2	4	0	6	0				
	Students	0	1	6	0	7	0				
Occupation of the respondent* Material Associated	Services	1	9	24	1	35	1	6.629(a)	6	.357	Accept
	Business	0	0	6	0	6	0				
	Students	0	0	6	1	7	0				
Occupation of the respondent* Preferrence towards customer welfare	Services	4	22	9	35	4	22	6.400(a)	4	.171	Accept
	Business	0	4	2	6	0	4				
	Students										
Occupation of the respondent* Department keeps customer informed	Services	2	14	16	3	35	2	10.643(a)	8	.223	Accept
	Business	0	2	4	0	6	0				
	Students	0	1	6	0	7	0				
Occupation of the respondent* Employees give prompt service	Services	1	5	16	12	1	35	7.617(a)	8	.472	Accept
	Business	0	0	1	4	1	6				
	Students	0	0	4	3	0	7				
Occupation of the respondent* Employees willing to help	Services		5	9	20	1	35	5.518(a)	6	.479	Accept
	Business		0	1	4	1	6				
	Students		0	3	3	1	7				
Occupation of the respondent* feel safe transaction	Services	1	2	4	21	7		11.693(a)	8	.165	Accept
	Business	0	0	1	1	4					
	Students	0	0	0	2	5					
Occupation of the respondent* Courteous	Services		3	15	16	1	35	8.841(a)	6	.183	Accept
	Business		0	0	6	0	6				
	Students		0	1	6	0	7				

1.4.3 Descriptive Analysis:

The Table 1.3 shows the descriptive statistics of the HSBC and DBBL bank where some variables have been found with high standard deviation and mean value. High mean value of age of the account for HSBC than DBBL tells that customers of the former one maintain their account for longer time than the next one. In terms of reliability the mean level of satisfaction of the variables is from 3.5 to 3.93 which fall between the neutral and agree level of satisfaction. Customer mean satisfaction level regarding ATM service is 4.5, remarkably high for DBBL out of 5 scale model where it is significantly lower for HSBC. Regarding the waiting arrangement of DBBL customers are found with high standard deviation which means that the branches of the bank vary highly regarding their waiting facilities. Transaction security is found with high mean level for the both banks. In case of HSBC lower standard deviation of transaction security means that almost all (surveyed) branches of the bank maintain the same level of safety protection to make its customer feel safe while transacting. In terms of empathy both banks are found with mean level of satisfaction over 3. But for both banks branches vary in their timing of service though the mean level of satisfaction is above 3.5 for both the banks.

Table: 1.3: Descriptive Statistics of the variables under the study

Factors	Variables	HSBC			DBBL		
		N	Mean	Std. Deviation	N	Mean	Std. Deviation
	Age of the accounts	55	3.5455	1.60518	48	2.5688	1.49085
Reliability	Convenient transaction hours	55	3.80	.848	48	3.73	.536
	Service in time	55	3.80	.590	48	3.62	.672
	Promises to do something in time	55	3.71	.685	48	3.65	.785
	Sincerity	55	3.93	.716	48	3.67	.808
Tangibility	Modern equipment	55	3.69	.717	48	3.65	.838
	No. of ATM booth	55	2.05	.848	48	4.56	.769
	Waiting arrangement	55	2.11	.832	48	2.71	1.320
	Appear Neat	55	3.58	.712	48	3.58	.647
	Documentation facility	55	3.44	.898	48	3.81	.532
	Physical facilities	55	3.65	.700	48	3.52	.684
Responsiveness	Keeping customer informed	55	3.60	.873	48	3.44	.897
	Helpful mentality	55	3.80	.803	48	3.58	.767
	Prompt service	55	3.60	.830	48	3.33	.808
	Prompt response	55	3.38	.805	48	3.04	.849
Assurance	Transaction security	55	4.02	.593	48	4.08	.895
Empathy	Individual attention	55	3.44	.811	48	3.48	.772
	Clear concept of bank employee	55	3.49	.690	48	3.67	.559
	Courteous	55	3.67	.721	48	3.56	.649
	Preference towards customer welfare	55	3.29	.685	48	3.25	.601

The frequency distribution (Appendices; Table:2) shows that more than 50 % of the customers agreed that both banks promise to do something in time. In case of Convenient transaction hours customers of DBBL have agreed more (70.83%) than that of HSBC (56.36%). In providing service in time HSBC is in better position than the DBBL. In

providing ATM services 66.67% customers of DBBL have strongly agreed which is 1.82% for HSBC bank. In case of documentation facility 45.45% customers are found neutral and 34.55% agreed where 75% customers agreed for DBBL which means that the bank is more sincere to provide necessary documents to the customers than HSBC. 52.73% customers in HSBC and 39.5% customers of DBBL agreed that the banks give prompt services. 63.64% customers agreed regarding the helpful mentality of HSBC employees which is little bit low for DBBL where 56.25% customers agreed about the willingness to help of the employees.50 % customers of DBBL agreed that the bank keep them informed regarding bank services and features on time which is just 41.8% for HSBC. But 65.45% customers agreed that they feel safe to transect in HSBC where it is just 50% for DBBL. 49.9% customers agreed that employees of HSBC have clear concept about their job description but for DBBL 64.58% customers agreed regarding the clear concept of the DBBL employees.

1.4.4 Factor Analysis:

For HSBC 6 factors have been extracted of the 19 variables of the SERVQUAL model (Table: 1.4) where providing service in time, one of the variables of reliability, have been loaded with highest correlation in factor 1. Transaction security, the only assurance variable is loaded in factor 2. Factor 2 has loaded two important variables of tangibility waiting arrangement and no. of ATM booths. Convenient transaction hours, one of the variables of reliability is loaded as an important factor in factor 5 and factor 6 loads the variable of responsiveness that whether the department keep the customers informed or not.

Table: 1.4: Component Matrix of the factor analysis for HSBC

	Component					
	1	2	3	4	5	6
Promises to do something in time	.154	.054	.642	.188	-.151	.048
Sincerity	.121	-.293	.534	.402	-.053	-.012
Service in time	.734	.123	-.013	-.098	-.093	-.289
Prompt service	.628	-.095	.198	-.043	.307	.374
Helpful mentality	.488	-.174	.448	-.254	-.438	.162
Prompt response	.583	.307	.088	-.429	.073	.195
Transaction security	-.136	.606	.253	-.129	.206	.378
Courteous	.391	-.634	.340	-.131	.010	.091
Knowledge	.619	-.050	-.104	-.224	.116	-.220
Individual attention	.504	-.454	-.145	-.289	.286	-.240
Preference towards customer welfare	.164	-.046	.105	.458	.646	.277

Modern equipment	.466	-.458	.135	.420	-.105	-.030
Physical facilities	.621	.384	-.086	.210	-.206	-.215
Appear neat	.545	.490	-.061	-.265	-.018	.223
Documentation facility	.350	.244	-.217	.632	.127	-.110
Convenient transaction hours	.338	.382	-.107	.581	-.373	.174
No. of ATM booth	.185	-.497	-.573	.167	.036	.262
Waiting arrangement	.511	-.037	-.694	-.017	-.129	.195

The principal component extraction method has identified the above factors as the most important one out of 19 variables of the model. So HSBC should take care of the extracted factors for maintaining the current and increasing the satisfaction level of the customers.

For DBBL 8 factors have been extracted out of the 19 variables of the SERVQUAL model (Table: 1.4). In factor 1, employees willing to help and department keep customers informed, employees give prompt services, variables of responsiveness, have been loaded with highest correlation in factor 1. Physical facilities (tangibility variable) and convenient transaction hours (reliability variable) have been loaded with highest correlation in factor 2. Factor 3 loads appear net (tangibility variable) and prompt response (responsiveness variable) as the important factors.

Table: 1.5: Component Matrix of the factor analysis for DBBL

	Component							
	1	2	3	4	5	6	7	8
Promises to do something in time	-.041	.349	.150	.697	-.266	-.124	.094	-.091
Sincere interest in problem solving	.523	.152	.412	.046	.025	-.494	-.215	-.159
Service in time	.282	.188	.055	-.246	.660	-.189	-.261	.378
Keepsing customer informed	.697	.049	-.032	.113	.426	-.103	.060	-.118
Prompt service	.697	-.594	.007	-.050	-.105	.076	-.009	.039
Helpful mentality	.771	-.416	.001	.150	-.071	.027	-.040	-.075
Prompt response	.075	.280	-.570	.111	-.092	.260	-.193	.212
Transaction security	.237	.124	-.482	.100	-.454	-.178	-.340	.409
Courteous	.689	-.167	-.382	.039	.125	.105	-.133	.004
Knowledge	.227	.261	.233	.091	-.012	-.033	.398	.719

Individual attention	.596	.177	.022	.368	-.190	.377	.301	-.063
Preferrence towards customer welfare	.559	.310	.054	-.289	-.152	.195	-.126	-.118
Modern equipment	.547	.281	.400	-.301	-.362	.131	-.050	-.043
Physical facilities	.052	.517	.430	-.251	.117	.367	.082	.035
Appear neat	-.052	-.111	.590	.263	.085	.291	-.492	.082
Documentation facility	.300	.373	-.178	.431	.320	-.296	.247	-.153
Convenient transaction hours	.041	-.636	.188	.024	.138	.131	.403	.233
No. of ATM	.096	.274	-.465	-.310	.279	.312	.170	-.208
Waiting arrangement	.220	.050	-.014	-.602	-.372	-.424	.286	-.033

Promises to do something, one of the reliability variables are loaded in factor 4. Keeping customers informed, one of the responsiveness variables is loaded in factor 5. Sincerity of the employees, a reliability variable is loaded in factor 6. Transaction security, the only assurance variable has been loaded in factor 8.

1.4.5 Findings:

In this study from the hypothesis analysis it is found that HSBC's services varies in terms of providing its services in time and keeping customer informed with the type of occupation where DBBL is found to have no statistically significant association of occupation with the surveyed variables of the SERVQUAL model. From the descriptive analysis (Table 1.3) of the study DBBL is found with high standard deviation regarding the waiting arrangement across branches and HSBC has its lower mean customer satisfaction regarding the ATM service quality. Transaction security is highly maintained in both banks with lower standard deviation (Table: 1.3). Frequency distribution (Appendix; Table:2) of the study shows that DBBL's customers are less satisfied regarding the on time service providing where HSBC is found with very low satisfaction level regarding ATM facilities. According to the frequency distribution HSBC are less effective in keeping its customer informed about its services than DBBL but regarding clear concept about job description DBBL's employees have been ranked higher than those of HSBC. In case of factor analysis except Empathy all other 5 factors have been loaded where two variables of Tangibility have been considered very important. In case of DBBL, like HSBC all 5 factors have been loaded except the factor Empathy. Three reliability factors have been considered very important, two responsiveness and tangibility factors, and the assurance variable have been considered important to retain and increase the customer satisfaction level of the bank.

1.4.6 Conclusion:

SERVQUAL model is relevant to have an idea that how the customers grab and organize information about the service quality of any organization. In this study the customer service quality of HSBC and DBBL have been analyzed with comparative view. Customers of both the banks are satisfied as their responses regarding the variables surveyed fell under 3 to 5 scale of the 5 scale Likert Model. Factor analysis of the study has pointed out some variables of the model critical for retaining and increasing the customer service quality of the selected banks. HSBC's customers have lower satisfaction regarding keeping them informed and ATM services which are also critical factors for the bank. So, the bank should improve its ATM services to provide customers with better

service. HSBC should readjust their service offering strategy which currently varies with the type of the occupation of their customers. DBBL should be more careful about the development of waiting arrangement across the branches as it has come with high standard deviation in the descriptive analysis. In addition DBBL should also care to increase the average age of the account of their customers. At last, in the questionnaire an open ended question was included for the customers to write their suggestion regarding the bank service quality. Customers with account in DBBL are found to fill up the open-ended section with a common complain regarding the service quality of ATM service. Shortage of Money, misleading balance adjustment, networking problem have come severally and more than 50 % customers have complained about the service charge for the balance statement. So, the bank should be careful about these complain and try to improve to continue with the current level of customer service quality.

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Appendices

Table:1

SERVQUAL Model - List of the Variables

Factors	Variables
Reliability	Promises to do in time
	Sincerity
	Service in time
	Convenient transaction hours
Tangibility	Modern equipment
	Number of ATM booth
	Employee appearance
	Waiting arrangement
	Documentation facility
	Physical facilities
Responsiveness	Prompt service
	Keeping customer informed
	Helpful mentality
	Prompt response
Assurance	Transaction security
Empathy	Individual attention
	Clear concept of bank employee
	Courteous
	Preference towards customer welfare

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Financial Performance in Banking Sector in Bangladesh: A Comparative Study of Some Selected Private Commercial Banks

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Abstract: *Evaluation of bank performance is important for all parties: depositors, bank managers, and regulators. The aim of this paper is to rank the commercial banks in Bangladesh on the basis of their financial characteristics revealed by different financial ratios. The study also tries to investigate the impact of operational efficiency and asset utilization on the financial performance of these banks. A total of ten commercial banks are financially analyzed. The study finds that the bank with higher total assets, deposits and credits does not always ensure better profitability performance and operational efficiency and asset utilization and all these have significant influence on financial performance of the commercial banks.*

Key Words: Financial Performance; Depositors; Regulators; Financial Ratios; Operational Efficiency; Asset Utilization.

1. Introduction

Banking system plays an important role in the economic development of a country. Bangladesh, as a developing country, is no exception to this. In Bangladesh, the banking sector dominates the financial sector and the macro economic management largely depends on the performance of the banking sector. The country's banking sector comprises Bangladesh Bank, Nationalized Commercial Banks, Private Commercial Banks, Foreign Banks and other Financial Institutions.

Generally, the financial performance of banks and other financial institutions has been measured using a combination of financial ratio analysis, benchmarking, measuring performance against budget or a mix of these methodologies. Much of the current banking performance literature describes the relationship between risk and return and focus too much on asset and liability management. There is a generally accepted relationship between risk and return, that is, the higher the risk the higher the expected return. Therefore, traditional measures of bank performance have measured both risk and return. Chien Ho and Song Zhu (2004), have shown in their study that most previous studies concerning company performance evaluation focus merely on operational efficiency and operational effectiveness which might directly influence the survival of a company. The empirical result of this study is that a company with better efficiency in

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terms of profitability does not always mean that it has better effectiveness in term of management.

It is often argued that there are three principal factors to improve financial performance for financial institutions; the institution size, its asset management and the operational efficiency. There have been little published studies to explore the impact of these factors on the financial performance especially the commercial banks. Medhat Tarawnch (2006), has opined in his study that there are measurable linkages among bank's size, asset management, operational efficiency and financial performance of the bank. The purpose of this paper is to analyze the financial data of Bangladeshi commercial banks to examine the impact of operational efficiency and asset utilization on the bank's financial performance.

2. Objectives of the study:

The study focuses on the following specific objectives.

1. Examing and comparing the composition of total deposits, total credits, total assets and total shareholders equity of the sample banks during the period from 2003 to 2007.
2. Measuring and comparing the profitability and performance of the sample banks during the period under study.
3. Ranking the sample banks on the basis of their financial Strengths as revealed in different financial ratios.
4. To investigate the impact of operational efficiency and asset utilization on the financial performance of the sample banks.

3. The Methodology:

The scope of the study is limited to the Private Commercial Banks considering time constraint of the researchers. Out of thirty private commercial banks, ten banks are selected for the study purpose. Private commercial banks based on Islamic Shariah are ignored purposively in this study. In order to meet the objectives of the study data were collected from the secondary sources mainly from annual reports of the selected banks. This study has used ANOVA analyses along with necessary ratio analysis. The period of the study is five years from 01.01.03 to 31.12.07.

4. Analysis:

4.1 Comparisons of the banks based on deposits, credits, assets, shareholders' equity, ROE, ROD and ROA.

For comparative study we have used various tables from different angles.

Table-1 shows total deposits of ten commercial banks through 2003-2007 and the growth rate of deposits taking 2003 as the base year.

Table 1: Total Deposits of the Bangladeshi Commercial Banks.

(Tk. in million)

Year	2003	2004	2005	2006	2007	Growth rate in 2007	Average
Bank							
Prime	20483	28069	36022	54724	70512	244%	41962
National	27762	28973	32984	40351	47961	73%	35606
Dhaka	16851	22270	28439	41554	48731	189%	31569
One	8847	10915	18030	20253	24484	177%	16505
Trust	4483	9315	12705	18986	27102	505%	14518
NCC	15154	16069	21478	28147	34902	130%	23150
AB	27260	28299	27361	42077	53375	96%	35674
Standard	5612	8731	12043	14221	19214	242%	11964
Southeast	19619	27931	38258	46056	55474	183%	37478
Eastern	11952	15649	19396	25734	30092	152%	20565

Source: Financial Statements of the Banks (2003-2007)

It is revealed from the above table that the average of total deposits for Prime bank is Tk. 41962 million with growth rate of 244% in the year 2007 in comparing with the year of 2003 but Trust Bank having lower deposits in the year of 2003 which has risen its deposits at a rapid rate perhaps due to operational efficiency. The average totals deposits of remaining Banks have been shown in like manner. The growth rate is highest (505%) for Trust Bank with average total deposits of Tk. 14518 million and lowest (73%) for National Bank with average total deposits of Tk.35606 million. To rank the Banks on their average total deposits, Prime Bank is considered to be the number one, Southeast Bank is number two and AB Bank National Bank, and Dhaka Bank are number three, four, and five respectively as shown in table-1.

Table-2 shows total credits, growth rate of credits taking 2003 as the base year and the average of total credits during 2003-2007 for each sample bank.

Table 2: Total Credits of the Bangladeshi Commercial Banks.

(Tk. in million)

Year	2003	2004	2005	2006	2007	Growth rate in 2007	Average
Bank							
Prime	16492	23220	31916	45010	57683	250%	34864
National	22257	23129	27020	32710	36476	64%	28318
Dhaka	12887	16539	23372	34049	39972	210%	25364
One	6051	9613	13851	15681	19709	226%	12981
Trust	4358	6804	9738	13188	18682	329%	10554
NCC	12851	15211	20533	24678	32688	154%	21192
AB	20435	17009	21385	31289	40915	100%	26207
Standard	4952	7801	10184	12634	17311	250%	10576
Southeast	15542	22002	32551	41147	48165	210%	31881
Eastern	11288	14973	17758	26008	30962	174%	20198

Source: Financial Statements of the Banks (2003-2007)

The above table shows that the growth rate of credits is highest (329%) for Trust Bank and lowest (64%) for National Bank in 2007 comparing with credits in 200

3. To rank the banks on their average credits, Prime Bank is considered to be number one, southeast Bank in number two and national bank is number three. Trust bank has the lowest average of total credits (10554 million Tk). It is to be noted that the bank with highest growth rate of total credits during the period does not always mean that it has high average of total credits as shown in table 2.

Table 3 shows total assets for all the sample commercial banks through 2003-2007 and provide the growth rate of assets on 2003 as base year.

Table 3: Total assets of the Bangladeshi Commercial Banks

(Tk. in million)

Year	2003	2004	2005	2006	2007	Growth rate in 2007	Average
Bank							
Prime	24249	32362	41506	60899	79588	228%	47721
National	35670	35127	38400	46796	56527	58%	42504
Dhaka	20816	28178	33072	47594	57443	176%	37421
One	9975	13419	20105	23143	27475	175%	18823
Trust	7859	12060	14782	21061	30382	287%	17229
NCC	18093	21469	26114	32615	42523	135%	28163
AB	32969	32513	33065	47989	63550	93%	42017
Standard	7174	11071	14442	16861	22949	220%	14500
Southeast	23136	33745	43295	53706	65371	178%	43651
Eastern	18716	23048	27400	35971	42579	128%	29543

Source: Financial Statements of the Banks (2003-2007)

From the above table it is notable that average of total assets for Prime bank is 47721 million Tk with growth rate of 228% in the year 2007 as compared to 2003. The growth rate is highest (287%) for Trust bank with average total assets of tk 17229 million and lowest (58%) for National bank with average total assets of tk 42504 million. To rank the banks on their average total assets, Prime bank is considered to be number one, Southeast Bank is number two and National Bank is number three. Almost every Bank has more assets as against the deposit liabilities shown in the table 1. Undoubtedly, it is a good sign of healthy growth of a bank.

Table-4 shows total shareholders equity, growth rate of shareholders equity and the average shareholders' equity during the period of 2003-2007 for each sample banks.

Table 4: Total shareholders' equity of the Bangladeshi Commercial Banks

(Tk. in million)

Year	03	04	05	06	07	Growth rate in 2007	Average
Bank							
Prime	1782	2240	2808	3860	5273	196%	3193
National	1701	1862	2735	3274	4568	169%	2828
Dhaka	1210	1488	2216	2551	3125	158%	2118
One	789	984	1286	1519	1833	132%	1282
Trust	454	871	992	1155	2154	374%	1125
NCC	944	1230	1657	2135	2959	213%	1785
AB	1136	1244	1527	2583	4512	297%	2200
Standard	857	1100	1412	1764	2767	223%	1580
Southeast	1258	1429	2037	5059	6144	388%	3185
Eastern	2321	2631	3071	3315	3712	54%	3010

Source: Financial Statements of the Banks (2003-2007)

It is revealed from the above table that the growth rate of shareholders' equity is highest (388%) for Southeast Bank and lowest (54%) for Eastern Bank in 2007 comparing in 2003. To rank the Banks on their average shareholders equity, Prime Bank is considered to be number one, Southeast Bank is number two and Eastern Bank is number three. Among all the sample banks, Trust Bank has the lowest average of shareholders' equity (1125 million). It is to be noted that the bank with highest growth rate of total shareholders' equity during the period does not always mean that it will have high average of total shareholders equity as shown in table 4.

Table 5 shows return on equity (ROE) ratios of all the sample commercial banks from the year of 2003 to 2007.

Table 5: Return on Equity ratio of the Bangladeshi Commercial Banks

Year	03	04	05	06	07	Average
Bank						
Prime	21.04%	27.32%	20.23%	27.25%	26.57%	24.48%
National	5.18	9.13	9.95	15.49	27.10	13.37
Dhaka	22.23	24.03	20.89	22.74	22.53	22.48
One	11.53	19.82	23.48	22.84	22.09	19.95
Trust	15	20.21	12.23	22.76	11.10	16.26
NCC	8.37	23.17	21.24	22.45	22.88	19.62
AB	1.53	7.24	10.64	20.61	42.19	16.44
Standard	17.62	22.09	22.17	19.95	12.54	18.87
Southeast	20.35	20.68	18.36	17.99	19.90	19.45
Eastern	15.42	18.35	17.78	15.48	11.29	15.66

Source: Calculated from the financial statements of banks.

The return on equity is considered to be one of the indicators of measuring efficiency of management. It is calculated through dividing the net profit by total shareholders' equity. It reflects the bank management's ability to generate net profit from using the

shareholders' equity as one of the financial sources. Based on this ratio Prime Bank holds the first position with an average of 24.48% and National Bank holds the last position with an average of 13.37%.

The return on deposits (ROD) is considered to be one of the profitability performance ratios. To most financial analysts, ROD is considered as one of the best measures of bank profitability. It is calculated through dividing net profits by total deposits. This ratio reflects the bank management ability to utilize the customers' deposits in order to generate profits. Based on this ratio the Standard Bank holds the first position with an average of 2.47% and National Bank is the last one with average of 1.11%.

Table –6 shows Return on Deposits (ROD) ratios of all the sample commercial banks through 2003-2007.

Table 6: Return on Deposits ratio of the Bangladeshi Commercial Banks

Year	2003	2004	2005	2006	2007	Average
Bank						
Prime	1.83%	2.18%	1.58%	1.92%	1.99%	1.90%
National	.32	.59	.82	1.26	2.58	1.11
Dhaka	1.60	1.61	1.63	1.40	1.44	1.54
One	1.03	1.79	1.67	1.71	1.65	1.57
Trust	1.52	1.89	.95	1.39	.88	1.33
NCC	.52	1.77	1.64	1.70	1.94	1.51
AB	.06	.32	.59	1.26	3.57	1.16
Standard	2.69	2.78	2.60	2.48	1.81	2.47
Southeast	1.30	1.06	.98	1.98	2.20	1.50
Eastern	3.00	3.09	2.82	1.99	1.39	2.46

Source: Calculated from financial statements of the banks.

Table – 7 shows return on asset (ROA) ratios of each sample commercial bank during the period 2003-2007.

Table 7: Return on asset ratio of the Bangladeshi Commercial Banks

Year	03	04	05	06	07	Average
Bank						
Prime	1.55%	1.89%	1.37%	1.73%	1.76%	1.66%
National	.25	.48	.71	1.08	2.19	.94
Dhaka	1.29	1.27	1.40	1.22	1.23	1.28
One	.91	1.45	1.50	1.50	1.47	1.37
Trust	.87	1.79	.82	1.24	.79	1.10
NCC	.44	1.33	1.35	1.47	1.59	1.24
AB	.05	.28	.49	1.11	2.99	.98
Standard	2.10	2.19	2.16	2.09	1.51	2.01
Southeast	1.11	1.00	.86	1.66	1.90	1.31
Eastern	1.91	2.10	1.99	1.43	.98	1.68

Source: Calculated from financial statements of the banks.

The return on asset (ROA) is considered to be one of the indicators of measuring managerial efficiency. ROA is net earning per unit of a given asset. It is calculated through dividing net profits by total assets. It shows how a bank can convert its asset into net earnings. The higher ratio indicates higher ability and therefore, is an indicator of better performance. Based on this ratio Standard Bank holds the first position with an average of 2.01%, Eastern Band and Prime Bank hold second and third position with an average of 1.68% and 1.66% respectively. The last position belongs to National Bank with an average of only .94%.

Table-8 shows rank of positions of all the sample banks based on their deposits, credits, assets, shareholders equity, and financial ratios.

Table 8: Ranks of Bangladeshi Commercial Banks based on financial indicators

Indicator	Deposits	Credits	Assets	Shareholders equity	ROE	ROD	ROA
Bank							
Prime	1	1	1	1	1	3	3
National	4	3	3	4	10	10	10
Dhaka	5	5	5	6	2	5	6
One	8	8	8	9	3	4	4
Trust	9	10	9	10	8	8	8
NCC	6	6	7	7	4	6	7
AB	3	4	4	5	7	9	9
Standard	10	9	10	8	6	1	1
Southeast	2	2	2	2	5	7	5
Eastern	7	7	6	3	9	2	2

It is revealed from the above table that according to the ranking Prime Bank holds the first position in terms of total deposits, total credits, total assets and total shareholders' equity but it goes to the third position among other banks in terms of its profitability performance (ROA, ROD). Similarly Southeast Bank holds second position in each categories but it goes to the seventh position in terms of its profitability performance (ROD). On the contrary, Standard Bank holds the first position in terms of profitability performance ROD and ROA but it goes to the last position in terms of total deposits and total assets. Thus, from the above table, it might be concluded that the bank with higher total assets, deposits, credits and shareholders' equity does not always ensure its better profitability performance. The main causes behind it are the increase in operating expenses leading to lower net income, the decrease in credit interest and income in volume of assets. All these factors will sharply lower down ROD and ROA.

5. Hypothesis Testing: In this study, we have developed a simple hypothesis to test whether there exists an impact of operational efficiency and asset utilization (asset management) on financial performance (measured by ROA and ROD) of the commercial banks in Bangladesh. So we have two independent variables (operational efficiency and asset utilization) and two dependent variables (ROA and ROD). Operational efficiency has been measured by the operating efficiency ratio (total operating expenses divided by net interest income) and asset utilization (asset management) has been measured by the asset utilization ratio (Operational income divided by total assets). Our hypotheses are as follows

Ho: There exist no impact of operational efficiency and asset utilization on financial performance of the commercial banks in Bangladesh.

Ha: There exist an impact of operational efficiency and asset utilization on financial performance of the commercial banks in Bangladesh.

The average data for all variables of the study during the period 2003-2007 as shown in table-10 were used to examine the impact of independent variables on the dependent variable.

Table-9: Key average data (2003-07) of Bangladeshi Commercial Banks (In %)

Variable	*ROA	*ROD	** Operational efficiency	**Asset utilization
Bank				
Prime	1.66	1.90	77.98	5.92
National	.94	1.11	185.32	6.28
Dhaka	1.28	1.54	88.07	4.68
One	1.37	1.57	81	3.15
Trust	1.10	1.33	111.4	3.62
NCC	1.24	1.51	329.40	11.75
AB	.98	1.16	192.4	5.17
Standard	2.01	2.47	57.2	5.76
Southeast	1.31	1.50	68.8	4.81
Eastern	1.68	2.46	77	5.91

* Table 6 and table 7
*Appendix A and Appendix B
Further,
* Dependent variable
** Independent variable

We have used analysis of variance (ANOVA) to test the hypothesis due to nature of variables and available information. The testing rule is to accept null hypothesis (Ho) if the calculated F.Sig is greater than .05 and reject it if the calculated F. significance is less than .05. The result of the analysis of variance is shown in table below

9. A Dependent variable: ROA

Model	df	SS	MS	F	Significance F*
Regression	2	.80289	.401445	12.56084	.004831
Residual	7	.22372	.03196		
Total	9	1.02661			

9. B Dependent variable: ROD

Model	df	SS	MS	F	Significance F*
Regression	2	.532558	.766279	9.701625	.009595
Residual	7	.552892	.0789850		
Total	9	2.08545			

* Indicate significance at or below .05 levels

As the values of F.Sig .0048 and .0096 are less than .05 levels, the alternative hypothesis is accepted which means that there is an impact of operational efficiency and asset utilization on financial performance of the commercial banks in Bangladesh.

6. Conclusion

This paper makes a comparative analysis of performance in terms of total deposits, credits, assets, shareholders equity and the three profitability ratios like ROA, ROE and ROD of ten private commercial banks in Bangladesh and ranks them accordingly. It has been observed in the present study that different banks have different combinations of deposits, credits, assets, and shareholders' equity which cause them to hold different positions in ranking each aspect. It is to be noted that Prime Bank and Southeast Bank contains first and second position in respect of all aspects like total assets, deposits, credits, and shareholders' equity.

Based on the return on assets and return on deposits, the highest rank is held by Standard Bank. Eastern Bank is in the second position and Prime Bank is in the third position. On the basis of ROE Prime Bank, Dhaka Bank and One bank hold first, second and third position respectably. It is to be noted that National Bank secures last position among all sample banks in respect of ROA, ROD, and ROE. Based on the reported ranking it can be concluded that the bank with higher predictors of total assets, credits, deposits or shareholder equity does not always ensure better profitability performance.

The present study also tries to examine the relationship (if exist) between financial performance of a bank and its operational efficiency and asset utilization. The analysis of variance (ANOVA) indicates that financial performance of a bank is strongly and positively influenced by the operational efficiency and asset utilization. The findings are important in the sense that a bank's financial performance depends more on its effective management rather than on its size (total assets, total deposits etc).

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Appendix-A
Operational Efficiency ratio of the Bangladeshi Commercial Banks

Year	2003	2004	2005	2006	2007	Average
Bank						
Prime	78.70%	80.39%	75.49%	73.4%	81.92%	77.98%
National	161.92	207.26	236.64	174.12	146.67	185.32
Dhaka	111.86	84.08	79.28	92.10	73.03	88.07
One	88.55	60.78	98.41	113.57	93.73	91.00
Trust	156	125	129	76	71	111.4
NCC	390	358.49	314	274	311	329.40
AB	223	213	119	315	92	192.4
Standard	51	43	47	58	87	57.2
Southeast	76	86	62	62	58	68.8
Eastern	65	58	77	112	73	77

Appendix-B
Asset Utilization ratio of the Bangladeshi Commercial Banks

Year	2003	2004	2005	2006	2007	Average
Bank						
Prime	6.57%	6.09%	5.80%	5.11%	6.05%	5.925%
National	5.11	5.59	6.00	7.01	7.69	6.28
Dhaka	4.53	4.51	4.50	4.33	5.52	4.68
One	2.62	3.73	3.11	2.91	3.38	3.15
Trust	2.68	3.54	3.46	4.05	4.37	3.62
NCC	12.51	10.63	11.23	12.00	12.39	11.75
AB	3.92	4.49	4.77	5.52	7.13	5.17
Standard	5.96	6.13	5.88	6.26	4.59	5.76
Southeast	4.51	3.83	4.73	5.07	5.93	4.81
Eastern	5.64	5.61	5.81	5.87	6.63	5.91

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Performance Analysis of Listed Private Commercial Banks in Dhaka Stock Exchange: An Empirical Study

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Abstract: *The study evaluates performance of private commercial banks listed in Dhaka Stock Exchange (DSE) in terms of Dividend policies, dividend ratios, EPS, P/E ratios and other profitability indicators, liquidity, risk and solvency. Financial tools and techniques are applied in measuring these performances. The study found that some commercial banks are doing well while others are somehow shown poor performance in DSE. But all commercial banks have greater opportunity to show better performance in the stock exchange. The analysis mostly depends on secondary data. Only small investors' views are taken from conversation and observation methods. Finally the study has recommended some policies such as to offer identical face value, identical market lot, issuing convertible preferred stock, corporate bonds, DRIP etc. for the selected banks to do well in future in the share market.*

1.1 Introduction

Almost all commercial banks in Bangladesh today are under great pressure to meet the interests of their stockholders, employees, depositors, borrowers and customers. most of the commercial banks have grown in recent years, more and more of them have been forced to turn to the money and capital markets to raise funds by selling stocks, bonds and other financial instruments and banking products. Besides these, they have been engaging themselves in lots of non-banking activities like brokerage house function and merchant banking. As the numbers of investors in Dhaka Stock Exchange (DSE) are increasing day by day, a huge numbers of investors of share markets are showing their interest to purchase and sell the share of different commercial banks. But somehow, they are frustrated as the shares of different commercial banks are not showing better performance yet.

Objectives

Following objectives were set for this research paper:

1. To evaluate the share market performance of selected commercial banks listed in the DSE.
2. To identify the missing links between small investor expectations and share market performance of commercial banks listed in the DSE.
3. To identify the financial and non-financial causes of the performance of commercial banks listed in DSE.
4. To formulate some share the market policies for these banks to follow in near future.

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Methodology

Among the listed private commercial banks in DSE, 16 (Sixteen) banks have been selected for conducting this research. Among these 16 banks, 09 are conventional and 07 are Islamic commercial banks. Different financial tools and techniques are used in this study. Last 06 years (2004-2009) dividend payout ratio and trend of earnings per share (EPS) are considered in evaluating the performance of the selected banks. Price earnings ratios (P/E) are considered as the opportunity to invest in this sector. Besides these, net assets value, market lots, authorized and paid up capital, bonus and rights issues, cash dividends, number of securities are also taken into consideration to evaluate the performance of the listed commercial banks. This study basically depends on the secondary data. Secondary data were collected from the banks websites, similar research works done earlier, newspapers and other online resources. Financial information was collected from the annual report during year 2004 to 2009. The study only emphasized those financial analyses which are related to the share markets.

Selected commercial banks are:

Name of the Selected Banks	DSE Trading Code
1. AB Bank Limited	ABBANK
2. National Credit and Commerce Bank Ltd.	NCCBANK
3. Dutch Bangla Bank Ltd.	DUTCHBANGL
4. Dhaka Bank Ltd.	DHAKABANK
5. Mercantile Bank Ltd.	MERCANBANK
6. Pubali Bank Ltd.	PUBALIBANK
7. Prime Bank Ltd.	PRIMEBANK
8. Eastern Bank Ltd.	EBL
9. National Bank Ltd.	NBL
10. Islami Bank Bangladesh Ltd.	ISLAMIBANK
11. Al-Arafa Islami Bank Ltd.	ALARABANK
12. Social Islami Bank Ltd.	SIBL
13. Shahjalal Islami Bank Ltd.	SHAHJABANK
14. First Security Islami Bank Ltd.	FIRSTSBANK
15. EXIM Bank Ltd.	EXIMBANK
16. ICB Commercial Bank Ltd.	ICBIBANK

Meaning of Bank Performance in the Share Market

Raymond F. Attner (2007) said that a commercial Bank is a profit-making corporation that accepts customers' deposits and lends them out to businesses and individual borrowers. Rose (2005), said that in today's world, bankers and their competitors are under great pressure to perform well all the time. But what do we mean by the word perform when it comes to banks and other financial service providers? In this case performance refers to how adequately a bank or other financial firm meets the objectives of stockholders (owners), employees, depositors, and other creditors, and borrowing customers. At the same time, these financial firms must find a way to keep government regulators satisfied so that their operating policies, loans, and investments are sound, protecting the public interest. The success or lack of success of these institutions in meeting the expectations of others is usually revealed by a careful and through analysis of their financial statements. Samad & Hassan (1998) said that the e**val**uation of bank

performance is important for all parties: depositors, bank managers and regulators. In a competitive financial market bank performance provides signal to depositors and investors whether to invest or withdraw funds from the bank. Similarly, it flashes direction to bank managers whether to improve its deposit service or loan service or both to improve its finance. Regulator is also interested to know for its regulation purposes. Better performance in the share market means that the banks are showing high EPS with lower P/E ratios, distributing regular dividend whether in cash or in bonus share, stable and reasonable market price of the share with lower investment risk.

Participation of Commercial Banks in Dse

Though Bangladesh have five categories of banks like: Nationalized bank, Private Commercial Banks, Private Islamic Commercial Banks, Specialized Banks and Foreign Commercial Banks, but only domestic Private Islamic and conventional commercial banking institutions started participation in DSE since 1983. Islami Bank Bangladesh Ltd., the largest private Islamic commercial bank in terms of profit making has been listed in Dhaka Stock Exchange in 1985. In 1998, Al-Arafa Islami Bank has been listed in DSE as the second Islami Banks. Then one after another total 29 Commercial banks have been listed in DSE. At present, all domestic private Islamic banks are listed in DSE. Few private commercial banks are yet to be enlisted. Only one government bank name as Rupali Bank Limited listed in DSE. No specialized banks and foreign banks are listed yet now.

Following table gives some integrated information about the selected listed commercial banks in DSE:

Table 01: Integrated Information about selected commercial banks

DSE Trading Code	Listing Year	Market Category	Electronic Share	Authorized capital (BDT mn)	Paid up Capital (BDT mn)	Face Value	Market Lot	No. of Securities
ABBANK	1983	A	Yes	3000.00	2564.00	100	5	25642532
NCCBANK	2000	A	Yes	5000.00	2285.00	100	50	22849004
DUTCHBANGL	2001	A	Yes	4000.00	1500.00	100	50	15000000
DHAKABANK	2000	A	Yes	6000.00	2128.00	100	50	21276782
MERCANBANK	2004	A	Yes	3000.00	2158.00	100	50	21584135
PUBALIBANK	1984	A	Yes	5000.00	3822.00	100	5	38220000
PRIMEBANK	2000	A	Yes	4000.00	4621.00	100	50	46210938
EBL	1993	A	Yes	3300.00	2496.00	100	20	24964200
NBL	1984	A	Yes	7450.00	4412.00	100	20	44121313
ISLAMIBANK	1985	A	Yes	10000.00	6178.0	100	10	61776000
ALARABANK	1998	A	Yes	5000.00	1799.00	100	50	17989535
SIBL	2000	A	Yes	4000.00	2691.73	100	50	26917259
SHAHJABANK	2007	A	Yes	4000.00	2740.00	100	50	27400956
FIRSTSBANK	2008	Z	Yes	3600.00	2300.00	100	50	23000000
EXIMBANK	2004	A	Yes	3500.00	3374.00	100	50	33739600
ICBIBANK	1990	Z	Yes	10000.00	6647.00	1000	5	6647023

***Source**: Created (based on different websites) & Annual reports*

In terms of paid up capital two banks, namely Islami Bank Bangladesh Ltd. and ICB Commercial Bank Ltd are on the top position with authorized capital of Tk 10000 million. Among the selected Commercial banks ICB Islamic Bank has the highest paid up capital. Except First Security Islami Bank Ltd and ICB Islamic Bank Ltd, all other commercial banks are in A-Category Share in DSE. The face value of the share of ICB Commercial Bank is Taka 1000 and that of all other commercial Banks are of Tk 100 face Value. But previously Islami Bank Bangladesh Ltd and Al-Arafa Islami Bank Ltd issued Tk 1000 par value share and then they have splited it into Taka 100 par. Some banks like Social Islami Bank are going to split the share into Tk 10 par share in future. The important thing is that all listed commercial banks are the member of Central Depository Bangladesh Limited (CDBL), hence the share of these banks are in electronic or D-mat (De-materialize) format.

It is important to the investor to know the classification of ownership of the banks. Market price somehow depends on the public holdings or government and sponsor/director holdings. If the institutional participations are increased, sometimes the price of the share will be increased. The following table shows the ownership among sponsors/directors, government, institution, foreign and public investors.

Table 02: Share Percentage about selected commercial banks

DSE Trading Code	Sponsor/Director	Government	Institute	Foreign	Public
ABBANK	50	0.57	0	0	49.43
NCCBANK	49.29	0	14.89	0.24	35.58
DUTCHBANGL	64.32	0	0	25.68	10
DHAKABANK	57.56	0	14.23	11.56	16.65
MERCANBANK	55.71	0	26.88	0	17.41
PUBALIBANK	11.3	0	41.68	0	47.02
PRIMEBANK	43.13	0	14.95	6.62	35.3
EBL	3.43	0	10.83	0	85.74
NBL	29.31	0	10.01	2.08	58.6
ISLAMIBANK	40%	0%	0%	0%	60.5%
ALARABANK	50.08%	0%	0%	0%	49.92
SIBL	39.56%	0%	12.19	0%	48.25
SHAHJABANK	50%	0%	0%	0%	50
FIRSTSBANK	50%	0%	0%	0%	50
EXIMBANK	46.79%	0%	21.23	5.81	26.17
ICBIBANK	53.05%	0%	23.89	0%	23.06

Source: *Created (based on different websites)*

There is no significant government participation in the ownership of any commercial banks listed in the DSE. Sponsor/Directors ownership is approximately 50% of all commercial banks except the IBBL and the SIBL. But the public holdings of the share are huge for ISLAMIBANK, EBL, PUBALIBANK, SIBL and ABBANK Limited. Institutional participations in the ownership of different commercial banks are also lower.

Analysis of Dividend and other Payouts

Dividend is the part of the earnings of a corporation that is distributed to its shareholders annually. High dividend payouts always indicate the strong financial strength of any corporation. Seven commercial banks participating in DSE are usually pay dividends in cash or in bonus share. Offering bonus share attracts the investor to purchases the share of different corporations. Table-03 shows that maximum commercial banks in DSE offered stock dividend. All most all commercial banks offered lucrative bonus share in every Year. Only First Security Banks and ICB Islamic banks did not declare and distribute any form of dividend during the period 2004-2009. Therefore, the price of these two banks went down.

Table 03: Share Dividend (Bonus Share) during 2004-2009

DSE Trading Code	2004	2005	2006	2007	2008	2009
ABBANK	5%	10%	30%	200%	15%	25%
NCCBANK	30%	10%	12.5%	30%	30%	47%
DUTCHBANGL	----	----	----	394.17%	50%	33.33%
DHAKABANK	25%	35%	20%	25%	10%	25%
MERCANBANK	25%	20%	25%	20%	20%	22%
PUBALIBANK	100%	200%	75%	40%	30%	30%
PRIMEBANK	40%	25%	30%	25%	25%	30%
EBL	---	----	25%	34%	20%	17%
NBL	20%	30%	50%	55%	52%	55%
ISLAMIBANK	20%	25%	10%	25%	30%	20%
ALARABANK	15.5%	26%	35%	20%	30%	30%
SIBL	-	-	-	17%	10%	11%
SHAHJABANK	NL*	NL	NL	20%	22%	25%
FIRSTSBANK	NL	NL	NL	NL	0%	0%
EXIMBANK	40%	30%	25%	25%	26%	35%
ICBIBANK	0%	0%	0%	0%	0%	0%

NL= Not Listed, ND= Not Declared during the research period

Table 04: Cash Dividend during 2004-2009

DSE Trading Code	2004	2005	2006	2007	2008	2009
ABBANK	-	-	-	-	15%	20%
NCCBANK	-	10%	10%	-	-	-
DUTCHBANGL	22%	25%	25%	---	---	
DHAKABANK	10%	20%	10%	---	15%	---
MERCANBANK	-	5%	-	-	-	-
PUBALIBANK	-	-	-	-	-	5%
PRIMEBANK	-	-	-	10%	-	10%
EBL	43%	40%	20%	---	---	20%
NBL	-	-	-	-	-	-
ISLAMIBANK	-	-	15%	-	-	10%
ALARABANK	-	-	-	-	-	-
SIBL	-	-	-	-	-	-
SHAHJABANK	NL*	NL	NL	-	-	-
FIRSTSBANK	NL	NL	NL	NL	-	
EXIMBANK	-	-	-	7%	-	
ICBIBANK	-	-	-	-	-	

NL= Not Listed

Source: *Collected from banks' declarations*

Most of the commercial banks are interested to offer stock dividend rather than offering cash dividend. The rate of stock dividends is lucrative for all kinds of investors. But maximum time, after the declaration of the stock dividend, the market price of the banks went down gradually, which fail to meet the expectation of the small investors. The basic reasons behind this, is to raise the paid up capital. Besley (2008) said, regular stock dividend policy decreases the market price. But if the commercial banks frequently offer stock dividend, the negative impact such as decrease in share price, loss of goodwill, dissatisfaction of shareholders, sales of share at discount and increase in internal fund can be arisen in future:

Analysis of net Asset Value (NAV)

The total value of a bank's assets less the total value of its liabilities is its net asset value (NAV). For valuation purposes, it is common to divide net assets by the number of shares in issue to give the net assets per share. This is the value of the assets that belong to each share, in much the same way that P/E measures profit per share. NAV is useful for the valuation of shares in sectors where the value of a company comes from the assets it holds rather than the profit stream generated by the business. According to Jim Clayton (1998), "Uninformed or noise traders push prices away from NAVs following the initial price moves cause by informed traders".

Table 05: Net Asset Value (NAV) during 2004-2009

DSE Trading Code	2004	2005	2006	2007	2008	2009
ABBANK	251.22	303.76	481.74	807	301.49	398.59
NCCBANK	202.30	168.77	177.64	218.83	230.73	264.10
DUTCHBANGL	484.03	642.18	796.36	1154.88	322	290.12
DHAKABANK	259.18	185.44	217.82	227.00	206.77	233.38
MERCANBANK	205.43	203.05	212.86	215.43	201.11	199.05
PUBALIBANK	1253.88	670.30	452.29	282.48	256.69	248.80
PRIMEBANK	223.98	225.57	250.32	256.79	235.89	331.86
EBL	235.43	484.67	398.38	358.63	341.45	337.65
NBL	380.95	471.36	593.45	433.11	324.92	313.25
ISLAMIBANK	3080.17	2971.55	2995.61	311.48	295.81	325.46
ALARABANK	n/a	n/a	n/a	147.24	150.41	198.16
SIBL	1564.96	1577.89	259.02	165.75	142.56	132.10
SHAHJABANK	n/a	n/a	n/a	124.12	131.58	179.80
FIRSTSBANK	165.95	136.82	111.52	113.43	110.37	ND
EXIMBANK	223.02	217.61	181.57	213.70	196.32	199.09
ICBIBANK	-2923.42	-7224.05	-15524.2	-15966.4	-440.79	667.86

Source: *Created (based on DSE Websites)*

Data show that only ICB Islamic bank has the negative Net Asset Value among the seven Commercial Banks. NAV of remaining selected commercial banks are so close to the market price of the share. So it is golden chance and time for the investor to purchase the share of different Commercial banks.

Analysis of Earnings per Share (EPS)

Earnings per share are generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio. To look at earnings per share (EPS) makes more sense for use as a comparison tool. An important aspect of EPS that's often ignored is the capital that is required to generate the earnings (net income) in the calculation. Two companies could generate the same EPS number, but one could do so with less equity (investment) - that company would be more efficient at using its capital to generate income and, all other things being equal would be a "better" company. Investors also need to be aware of earnings manipulation that will affect the quality of the earnings number. It is important not to rely on any one financial measure, but to use it in conjunction with statement analysis and other measures.

Data given below are the earnings per share (EPS) of selected commercial banks during 2004-2009.

Table 06: **Earnings Per Share (EPS) During 2004-2009**

DSE Trading Code	2004	2005	2006	2007	2008	2009
ABBANK	18.19	31.26	93.08	256.10	103.18	131.13
NCCBANK	46.92	36.11	39.88	50.09	50.20	75.26
DUTCHBANGL	116.93	181.97	179.18	237.37	82.17	75.85
DHAKABANK	60.57	43.99	45.17	45.48	43.36	45.09
MERCANBANK	39.10	38.71	41.22	36.06	34.24	37.41
PUBALIBANK	67.35	143.36	70.46	64.45	51.54	54.74
PRIMEBANK	61.19	40.59	60.11	61.49	43.92	79.43
EBL	58.38	65.98	61.98	40.50	57.52	58.53
NBL	32.93	43.85	63.01	102.47	81.03	72.74
ISLAMIBANK	3080.17	2971.55	2995.61	311.48	295.81	55.10
ALARABANK	263.67	387.80	550.24	30.12	48.29	47.75
SIBL	143.35	24.00	98.52	17.60	17.20	18.39
SHAHJABANK	-204.91	33.63	49.50	34.57	36.41	39.07
FIRSTSBANK	31.72	1.65	-13.02	3.06	7.35	9.17
EXIMBANK	60.82	63.19	43.48	43.45	40.95	50.21
ICBIBANK	-481.21	-1103.31	-8299.6	n/a	-156.64	-310.25

Source: *Created (based on DSE Websites)*

It is observed that the EPS of all selected commercial banks have great volatility. EPS of IBBL are low in 2008 comparing to the EPS of 2007 because of the attachment of additional bonus share. The percentage change of EPS of IBBL in year 2008 is -5.03% (negative). But at the same time, Al-Arafa Islami Bank Ltd. have shown positive percentage change of EPS which was 60.33%. This is the basic reason for which the market price of IBBL fallen down in 2008 and that of increased for Al-Arafa Islami Bank Ltd. Except ICB Commercial Bank, all other Commercial Banks have shown somehow stable EPS which indicate their continuous better performance. ABBANK shows the

highest EPS in 2008 and 2009. If these banks failed to maintain positive EPS trend, then according to Samuel (2001), "negative returns following dividend omission". This situation decreases the current market price of the share.

Analysis of Price Earnings Ratio (P/E)

Kodjo Adadevoh (2008) says that the Price to Earnings ratio (P/E ratio) is one of many ratios used by investors to evaluate how expensive or cheap a stock is relative to its historical cost.

The P/E looks at the relationship between the stock price and the company's earnings. The P/E is the most popular metric of stock analysis. The P/E gives an idea of what the market is willing to pay for the company's earnings. The higher the P/E ratio, the more the market is willing to pay for the company's earnings. Some investors read a high P/E as an overpriced stock and that may be the case, however it can also indicate the market has high hopes for this stock's future and has bid up the price. Conversely, a low P/E may indicate a "vote of no confidence" by the market or it could mean this is a sleeper that the market has overlooked.

Table 07: **Year End Price Earnings (P/E) Ratio During 2004-2009**

DSE Trading Code	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
ABBANK	20.01	17.61	30.54	10.00	9.16	12.20
NCCBANK	6.67	6.45	7.25	8.81	9.47	14.48
DUTCHBANGL	18.71	10.17	10.27	28.50	52.46	34.42
DHAKABANK	8.71	8.72	10.31	15.52	8.31	13.40
MERCANBANK	9.99	6.72	8.59	11.62	10.17	7.82
PUBALIBANK	30.50	4.24	11.97	21.41	13.70	10.55
PRIMEBANK	11.14	9.89	9.00	15.02	12.29	10.69
EBL	20.95	11.83	12.79	26.44	12.29	8.28
NBL	18.87	15.95	12.07	14.58	19.03	13.69
ISLAMIBANK	9.86	9.32	7.59	22.08	14.03	10.51
ALARABANK	11.61	5.76	4.88	14.62	11.96	14.58
SIBL	13.62	64.94	18.09	28.79	12.49	36.19
SHAHJABANK	n/a	n/a	n/a	10.58	10.43	12.65
FIRSTSBANK	n/a	n/a	n/a	n/a	23.74	33.40
EXIMBANK	6.25	8.08	7.74	9.00	9.95	12.43
ICBIBANK	n/a	n/a	n/a	n/a	n/a	n/a

Source: *Created (based on DSE Websites)*

In terms of P/E ratio, the investor can choose commercial banks as their P/E ratio is in the favorable level of investment. Lower P/E indicates the chance of gaining profit from lower investment. From investing in commercial banks, they investor can get back their money within a lower payback period. In support of this argument, Martin Chapman (2009), says that the P/E ratio is used by investors to assess how many years it will take them to get the value of their investment back. Except DUTCHBANGL, SIBL and FIRSTSBANK, the EPS of all other commercial banks are below 20 which indicate the favorable investment opportunity for the small and other investors.

Analysis of Right Issues

A rights issue is a way in which a company can sell new share in order to raise capital. Shares are offered to existing shareholders in proportion to their current shareholding,

respecting their pre-emptive rights. The price at which the shares are offered is usually at a discount to the current share price, which gives investors an incentive to buy the new shares — if they do not, the value of their holding is diluted.

Table 08: **Right Issue During 2004-2009**

Trading Code	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
ABBANK	-	-	-	-	-	**ND**
NCCBANK	**1R:2**	-	-	-	-	**1R:2**
DUTCHBANGL DSE	-	-	-	-	-	**----**
DHAKABANK	-	-	-	-	-	**---**
MERCANBANK	-	-	-	-	-	**2R:3**
PUBALIBANK	-	-	-	-	-	-
PRIMEBANK	-	-	-	-	-	-
EBL	-	-	-	-	**1R:2***	-
NBL	-	-	-	-	-	-
ISLAMIBANK	-	-	-	-	-	-
ALARABANK	-	-	-	--	-	1R:1
SIBL	-	-	-	1R:1	-	-
SHAHJABANK	-	-	-	-	-	-
FIRSTSBANK	-	-	-	-	-	-
EXIMBANK	-	-	1R:2			1R:2
ICBIBANK	-	-	-	-	-	-

Source: *Created (based on DSE Websites)*
** Added in 2009*

The above data shows that only NCCBANK, MERCANBANK, EBL, SIBL and EXIM has issued right share. But there are chances of issuing rights in future by other banks. Basically, the year of 2009 is the year of Rights offering for the commercial bank of Bangladesh. So many commercial banks has offered rights in this year.

Findings and Policy Recommendations:

01. This study found that the stock of different commercial banks have different Face Value (i.e. ICBIB Tk 1000, IBBL and Others Tk 100.). These different face values confused the investors. Small investors face problems if the face value becomes higher like Taka 1000. Hence, all commercial banks can offer identical Face value of their share either Tk. 100 or Tk 10 par.
02. This study also found from Table-01 that different commercial banks offer different market lots (i.e. ABBANK 05, ICBIB 05, ISLAMIBANK 10, EBL 20, NBL 20 and others 50.). This also creates problems for all kinds of investors. So, all commercial banks should use identical market lot of their share to make a congenial share trading and transactions.
03. After the analysis of the source of capital, the study also found that only Islami Bank Bangladesh Ltd. issues corporate bond to raise its capital. None of the commercial banks listed in DSE has preferred stock, they have only Common Stocks. So, every commercial bank listed in DSE can issue corporate bond and convertible preferred stocks. These will strengthen their financial ability and attract the investors to purchase the common stock from the market.
04. All commercial banks listed in DSE can offer Dividend Re-investment Plan (DRIP) for the investors to compensate the market risk.

05. To ensure the participation of investors, the commercial banks can offer a combination of both stock dividend (bonus share) and cash dividend in different years.

06. It is observed that the Islamic Banks are somehow show poor performance in comparison to the conventional bank listed in DSE in terms of EPS, stock dividend and other indicators. As huge portion of investors are interested only on islamic commercial banks and islamic financial institutions, the regulatory authority can create a separate islamic stock market along with the existing public, odd lot & spot market.

Conclusion

This study evaluates the performance of these commercial banks in terms of dividend policies, dividend ratios, EPS, P/E ratios and other profitability indicators, net asset values, proportion of ownership, bonus and right issues for the period 2004-2009 based on secondary data.. Financial tools and techniques are applied in measuring these performances. The study found that some commercial banks are doing well while two banks i.e. ICB Islami Bank and First Security Islami Bank are somehow shown poor performance in DSE. But all commercial banks have greater opportunity to show better performance in the stock exchange. Finally, the study has recommended some policies for the selected banks to do well in future in the capital market. These policies are to offer identical face value, identical market lot, issuing convertible preferred stock and corporate bonds, DRIP etc.

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Access to Rural Financial Services in Bangladesh: A Focus on Rural Villages

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Abstract: *Access to finance is very important to expansion of opportunities for economic growth to the widest segment of the population who resides in rural areas. When such opportunities are made available, growth will facilitate the way for an inclusive process of development. That process is sine qua non for alleviation of poverty. But inadequate access to finance has remained a central concern for rural entrepreneurs. This paper examines the access to financial services by rural entrepreneurs. It focuses on financial service practices in rural areas of Bangladesh, the activities of MFIs, Govt Banks, Commercial Banks and other organizations. It also focuses on constraints impeding the access to finance. To achieve the objective a survey was conducted on the SMEs and MSMEs of Chengar Char, Kalipur, and Beltoli in Matlab district and Dhamura, in Barisal district, Bangladesh. The study reveals that the most desired service provider is government institutions and the people in rural areas still prefer government services. But unfortunately a few entrepreneurs get loan from government bank.*

Keywords: Access to financial services, SMEs, MSMEs, MFIs.

1.1 Introduction

Delivery of financial services to the rural small and poor entrepreneurs has increased all over the world in recent years. Formal public and private commercial banks, state-owned rural development banks, cooperative banks and informal institutions-such as self-help groups, and savings and credit associations had increased their financial services to the rural entrepreneurs. However the delivery approaches have varied based on population densities, type of clients, growth of financial institutions and in some countries, the history of community and self help initiatives. And this growth has led to introduction of innovative products that have improved the livelihood of entrepreneurs, by building their assets and increasing their earnings.

Unfortunately, besides this growth in rural financial services and pockets of success stories worldwide, many people in rural areas, primarily those that are engaged in small-scale and medium scale enterprises, still lack access to financial services. In Bangladesh, a country where some effective approaches of micro finance has been pioneered, only small percent of rural entrepreneurs have access to formal sources of credit. Rural economy in Bangladesh is characterized by the economic activities of SMEs and MSMEs. To ensure the balanced economic growth of the country, the economic activities of this sector should be promoted. For sustainable growth of the activities of SMEs and MSMEs, access to credit is essential. In Bangladesh, like in many South East Asian countries, inadequate access to finance has remained a central concern for SMEs and MSMEs and a key constraint to the modernization and diversification of their

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activities. According to Calvin Miller, Rural Finance Senior Officer, Food and Agricultural Organization "In Bangladesh, a country long known for its depth of outreach in microfinance, neither microfinance providers nor public and private banks offer services that fully meet the needs of the missing middle." The commercial banks' limited participation in rural financing and the hard terms and conditions for obtaining individual loans have penalized many smallholders and small traders. The vast majority of these people have little to no access to financial services, limiting their productivity, income, investment and overall quality of life.

In Bangladesh government has taken some initiatives at facilitating rural credit in general over the years. Bangladesh, like most Asian countries, has pursued a supply led credit policy to promote credit access to the rural sector. This strategy, however, has created pressure on the limited resources of government, which then led to the emergence of financial services and techniques that attempted to respond to the needs of the rural sector. Some of these institutions succeeded.

According to the Bangladesh Bank data (2005), BKB and RAKUB provide 23% and BSB, BSRS, BASIC provide only 1% of the total funding requirements of rural SMEs. Also, as per a study by World Bank on 'Increasing Access to Rural Finance in Bangladesh: the Forgotten Missing Middle', access to finance, was identified by SMEs, as the single most important impediment to growth. This problem increases in magnitude with reduction in size and experience of the firm. Increased SME access to financing will require interventions in all three areas of SME financing, i.e., demand side (SMEs), supply side (Banks) and intermediaries and regulators (BB, government authorities).

Again to address the multi-dimensional aspects of poverty, the poor need to be empowered. Although high and sustainable economic growth is central to poverty reduction studies by Asenso-Okyere (1993) and Yaron (1997) reveal that promotion of efficient, sufficient and widely accessible rural financial services (rural banking) is key to achieving pro-poor growth and poverty reduction goals. This is because access to financial services plays a critical role in helping the poor widen their economic opportunities, increase their asset base, and diminish their vulnerability to external shocks. However, most formal financial institutions do not serve the poor because of several challenges, notably: low effective demand/dispersed demand, high transaction and information costs, high levels of unmitigated risks, lack of usable collaterals, weak contract enforcement, inadequate regulatory frameworks, and dependence of the poor on seasonal agricultural activities. To this end, Zeller and Meyer (2002) point out that micro finance as well as rural financial policy targeted at the poor can play a significant role.

02. Objectives of the study

The main objective of this study is to explore the degree of present access to rural financial services of SMEs and MSMEs as well as to find out the financial services of MFIs, Government Banks, Commercial Banks and other organizations offer to SMEs and MSMEs in rural areas. Besides this the study also attempted to cover the following objectives:

i. To explore the present access to rural financial services of SMEs and MSMEs.
ii. To explore the reasons behind the limited access to rural financial services.

iii. To find out any existing gaps in this sector
iv. To find out any scopes for financial services

In order to achieve the objectives an effort has been made to explore the availability of financial services to rural people and the reasons behind the limited access to rural financial services.

03. Methodology of the study

In this study four rural areas had been selected randomly. The areas are Chengar Char, Kalipur, Beltoli in Matlab, Chandpur and Dhamura, Barisal. In order to gather data regarding access to financial services a survey was conducted. Similar sets of questions were circulated among 100 SMEs and MSMEs (30 in Chengar Char, 20 in Kalipur, 20 in Beltoli and 30 in Dhamura) who had been selected randomly for the purpose of this study. To find the true picture, local support was taken so that respondents feel free to answer the questions. In the questionnaire circulated few questions were specifically designed to find out the level of *capital sources at the beginning of the business, use of loan financing at present, purpose of using the loan financing, amount of loan, the reasons for not taking loan, if they feel more capital is needed and finally what can be done to make them take loan financing and expand their business.* These indicators were selected on the basis of literature related with access to rural financial services.

04. Literature Review: Access to Rural Finance

Like most other South East Asian countries in Bangladesh, inadequate access to finance has remained a central concern for MSMEs and a key constraint to the modernization and diversification of their activities. The commercial banks' concentration in urban areas and limited participation in rural financing as well as the hard terms and conditions for obtaining individual loans have penalized many smallholders and small traders. The vast majority of these people have little to no access to financial services, limiting their growth, productivity, income, investment and overall standard of life. Inadequate regulatory/legal frameworks, monetary policies, inappropriate agricultural loan evaluations and inappropriate products of microfinance institutes are constraining rural financing in Bangladesh. Access to financial services, when combined with other assistance and protection programs, can have a significant impact on the economic stability and self-reliance that is needed so desperately among populations (Sue Azaiez). According to the World Development Report of 2000-2001 (World Bank, 2000),

"Access to financial markets is important for poor people. Like all economic agents, low income households and micro-enterprises can benefit from credit, savings, and insurance services. Such services help to manage risk and to smooth consumption… And allow people to take advantage of profitable business opportunities and increase their earnings potential. But financial markets, because of their special features, often serve poor people badly… Since poor people often have insufficient traditional forms of collateral (such as physical assets) to offer, they are often excluded from traditional financial markets… transactions costs are often high relative to the small loans typically demanded by poor people. And in areas where population density is low, physical access to banking services can be very difficult… "

Though the importance of access to rural finance is widely recognized (with a substantial amount of literature supporting it), it remains extremely low in a large number of

countries, especially developing countries. Among these countries are Emerging Powers like Brazil, India and South Africa. According to World Bank calculations in 2007 the percent of adults with access to an account with a financial intermediary was only 43 percent in Brazil, 48 percent in India and 46 percent in South Africa. These figures compare with over 90 percent in the industrialized world (Liliana Rojas-Suarez, Veronica Gonzales, 2009). Moreover in developing countries formal financial intermediaries, such as commercial banks, usually refuse to serve poor households and micro-enterprises because of the high cost of small transactions, lack of traditional collateral, lack of basic requirements for financing and geographic isolation. As a result rural areas are mostly deprived, in which agricultural activities are mail occupation. Formal financial intermediaries often avoid them since they are considered as riskier borrowers. In case of Bangladesh, according to World Bank data of 2003 over 50 percent of rural enterprises (including both agricultural and nonagricultural enterprises) cited access to finance as a "major or severe obstacle to their operations"(IFC, March 2009). However the situation is changing day by day. Various microfinance enterprise and also some commercial banks are getting interested to serve the rural areas and strengthening access to financial services for the rural sector, particularly the rural poor, is essential for attaining income poverty as prescribed in the Millennium Development Goals (MDGs). However, the trend is still lower. While the use of financial services measured as having deposit accounts with banks reaches over 90% in most high-income countries, in many low- and even middle-income countries the use of formal financial services is still restricted to a small number of firms and households (Peachey and Roe, 2004; Beck, Demirguc-Kunt and Martinez Peria, 2005). Broad access to financial services is related to the economic and social development agenda for at least two reasons. First, a large theoretical and empirical literature has shown the importance of a well developed financial system for economic development and poverty alleviation (Beck, Levine and Loayza, 2000; Beck, Demirguc-Kunt and Levine, 2004; Honohan, 2004a). Second, access to financial services can be seen as a public good that is essential to enable participation in the benefits of a modern, market-based economy, in an analogous way as is the access to safe water, basic health services, and primary education (Peachey and Roe, 2004). So in case of lower level of access to rural financing we can identify some obstacle like geographic limitations reflected, for instance, in the absence of bank branches or delivery points in remote and sparsely populated rural areas that are costlier to service, socio-economic limitations when financial services appear inaccessible to specific income, social or ethnic groups either because of high costs, rationing, financial illiteracy, or discrimination and lack of opportunity— where, for instance, talented newcomers with profitable projects are denied finance because they lack fixed collateral or are not well connected (Thorsten Beck and Augusto de la Torre, March 2006). But, these problems can be minimized if more MSMEs are made available to the rural areas. This step will empower the poor people; assist them utilizing more economic opportunities, create assets and make them able to better manage risks.

05. Focusing on Some Rural Villages of Bangladesh

5.01 Background

Chengar Char, Beltoli and Kalipur are three small villages in Matlab upazila, Chandpur district. The economy is mainly based on agriculture, fishing, service and business.

Chandpur district has a total area of 1704.06 square kilometers. It is located at the mouth of the Meghna River and it is a part of the Chittagong Division. Average literacy rate is 37.8% where male is 42.7%, and female is 33%. A survey confirmed that 35% people of Matlab thana stay abroad which contribute to the economy of the district.

On the other hand, Dhamura is a small village of Barisal District. It is around 256 km from the capital Dhaka and 24 km from Barisal. The centre of its economy is the local market. The position of the market has made it a profitable one. It is at the bank of Dhamura River and this market is a transition point for most other nearby locality for communication with the district or any other part of the country.

Apart from the century old market, this area has many other signs of development. The literacy rate is around 60 percent and almost 95 percent children go to school, though the dropout rate is also high, as one in twenty children drops out before sixth grade. Many of them start participating in the rural economy and those who drop out before university level, usually start small business in the locality. Like other selected areas, the remittance inflow in the economy is also high as many families have members staying abroad and sending money. These people help start up and run business and when they return permanently from abroad they start their own business.

5.02 The Economy of the Selected Rural Areas

The main source of earnings of the selected areas comes from farming but small and medium businesses are growing as well. The participation of woman in economy is also significant and increasing day by day. With the passage of time, the main activities are shifting from farming and cottage industry to other businesses. Participation of women in rural business is increasing gradually as some of the shops are run by woman entrepreneurs in the market.

In case of Matlab upazila, Chandpur district six banks are operating among which three are government bank (Sonali Bank, Janata Bank and Agrani Bank) and three are private commercial banks. Moreover around fifty cooperatives and four MFIs are also active in this area. Moreover individual or informal lenders are also playing vital role here.

On the other hand, in Dhamura there is a government bank (Sonali Bank) in the market and most of the well known MFIs have activities in this locality like BRAC, Grameen Bank etc., but here cooperative societies are playing a dominant role in rural financing in recent days. There are also individual lenders who meet short term financing needs but they charge very high interest rate.

5.03 Capital Sources at the beginning of the Business

The main sources of capital for initial investment in rural area is still own recourses. In our selected areas, people start business mainly, when they can save and gather adequate resources by themselves.

Table 1: Capital Sources at the Beginning of the Business (%)				
Area	**Own Capital**	**Help of Relatives**	**Loan**	**Sale of Property**
Chengar Chor	59.26%	22.22%	7.41%	11.11%
Kalipur Bazar	78.57%	14.29%	0.00%	7.14%
Beltoli Bazar	66.67%	33.33%	0.00%	0.00%
Dhamura	58.00%	13.00%	29.00%	0.00%
Average	65.63%	20.71%	9.1025%	4.56%

Source: Authors survey

Here, on an average 65.63% SMEs and MSMEs responded that they have started their business with their own capital. It is highest in Kalipur Bazar and lowest in Dhamura. Another 20.71% people started the business with the help of their relatives. Those who have family members abroad, mostly in Saudi Arabia, Dubai, Libia and Malaysia have had this support. The important finding is only 9.10% of the SMEs and MSMEs started their business with the help of loan, which indicates the access to finance is limited to startup a business in the locality. It is highest in Dhamura and lowest in Kalipur and Beltoli Bazar.

This scenario remains almost same in the following stages of the business. During the growth stage of the business, these SMEs and MSMEs seek for loan finance to facilitate additional sales. The MFIs and cooperatives play a vital role here. Most of the SMEs and MSMEs are at the growth stage of the business life cycle and it is high time they get access to finance.

5.04 Usage of loan in running the business

After observing the sales and revenue growth of the SMEs and MSMEs in recent years; it can be assumed that most of them are running at their full capacity with the internal resources. The average annual earnings from the business of the medium to large enterprises are ranging from BDT 20,000 and BDT 2, 40,000. This surely indicates the profitability of the enterprises.

Table2: Use of loan as financing at present (%)		
Area	**Yes**	**No**
Chengar Chor	66.67%	33.33%
Kalipur Bazar	35.71%	64.29%
beltoli Bazar	55.56%	44.44%
Dhamura	55.00%	45.00%
Average	53.23%	46.77%

Source: Authors survey

At this stage, on an average 53.23% of the SMEs and MSEMs have loans at present from one or more sources among the Government Banks, Private Banks, MFIs, Cooperatives, or other informal sources such as individual lenders lending at a high interest. This is highest for the area Chengar Chor. But, noteworthy thing is that on an average 46.77% SMEs and MSMEs have no loan financing. As, it is already mentioned that the economy is at growth stage, lack of financing is causing those enterprises unable to get finance lag behind. Later, the reasons behind not taking any loan are discussed in detail. Still, with almost half of the enterprises out of loan finance it is very difficult to strive forward.

5.05 Sources of Loan

A significant portion of the enterprises do not have access to loan finance. Though, there are sources available for loan financing in the selected areas; which represents the scenario of most other parts of Bangladesh. These sources provide inadequate amount of fund or the products are not suitable for the SMEs and MSMEs.

Table 3: Sources of loan (%)

Area	Govt. Bank	Private Bank	MFIs	Cooperatives	Informal Source
Chengar Chor	27.78%	11.11%	50.00%	0.00%	11.11%
Kalipur Bazar	60.00%	20.00%	20.00%	0.00%	0.00%
beltoli Bazar	20.00%	0.00%	20.00%	40.00%	20.00%
Dhamura	9.00%	20.00%	17.00%	31.00%	23.00%
Average	29.19%	12.78%	26.75%	17.75%	13.53%

Source: Authors survey

Mainly five types of sources of financing the fund are available for the SMEs and MSMEs in the selected areas. These five types of sources are also available across the country.

The most desired service provider is government institutions and the people in rural areas still prefer government services. They feel the commercial banks or other institutions have goal of profit maximization and they do not consider the economic condition. Whereas, government institutions' main purpose is economic development; as a result, they feel government institutions would provide loans with lower interest rate. This perception also creates a barrier for non government organizations in terms of fair competition.

However, only 29.19% SMEs and MSMEs could get fund from Government Banks on an average. In the selected areas, the only source of government finance for SMEs and MSMEs is Sonali Bank, Janata Bank and Agrani Bank and in a few cases Bangladesh Krishi Bank. As a result there remains a huge demand for govt. banks' services in the areas. Moreover, entrepreneurs consider government services would match with their benefit most where access is minimal.

The main sources of private banking services come from BRAC Bank, National Bank, Rupali Bank and Pubali Bank, mainly for two reasons. One, these banks have branches near to the selected areas and secondly, it is easier for the entrepreneurs to get loans from

these banks than government banks. Though, the rural enterprises believe the interest rate is too high, but on an average only 12.78% enterprises have loan from private commercial banks.

MFIs provide on an average 26.75% of the financing. The products provided by the MFIs are not always suitable for the small entrepreneurs of the areas. Again, the amount of loan is also important here. Grameen Bank, BRAC, ASA, ALO are the main MFIs in the areas. Where most of the small enterprises have access to MFIs but most of the medium and large enterprise are interested in other sources than MFIs.

Cooperatives in the selected areas are very popular source. There are many cooperatives here and most of the SMEs and MSMEs have or had used it as a source mainly because the source is readily available and the fund is easy to collect. At present on an average 17.75% SMEs and MSMEs have loans from these Cooperatives which are locally known as "Multipurpose'. However the popularity is decreasing day by day than the previous period. The repayment procedure is difficult for the enterprises, as most of the cooperatives collect fund on daily basis and sometime weekly basis. Other informal sources are individual lenders, relatives etc who provide fund mainly for short term financing at a high interest rate, sometime as high as 200 percent. Those enterprises needed funds for emergency or for a short period take this loan. And the fund is used mainly for working capital purposes and times before occasions, for instances before EID or Puja.

5.06 Purposes of using loan

The primary purpose of using loan is expansion. When the SMEs and MSMEs want to grow their business they seek for financing. Another use is working capital in where enterprises use the fund to meet day to day expenses or meet short term liabilities. New venture is considered as enterprises expanding beyond current business, i.e. starting another business.

Table4: Purpose of using loan (%)

Area	Expansion	New Venture	Working Capital
Chengar Chor	83.33%	5.56%	11.11%
Kalipur Bazar	100.00%	0.00%	0.00%
beltoli Bazar	100.00%	0.00%	0.00%
Dhamura	53.33%	6.67%	40.00%
Average	84.17%	3.06%	12.78%

Source: Authors survey

At the growth stage the SMEs and MSMEs go for expansion, try to capture more market share or generate more sales. As a result, on an average 84.17% entrepreneur in the selected areas uses loan for expansion.

On the other hand, 12.78% SMEs and MSMEs of the areas, use loan as working capital which help them keep running their enterprises in tough times. Some of the entrepreneurs mentioned that they do not take loan until they have no other options.

On an average majority of the rural enterprises, 96.95% use fund for these two purposes, where only 3.06% enterprises use loan financing for new venture. This concludes why the economy in the rural areas is growing at a slow pace. Hardly any new business opportunities are created in recent days. Existing businesses are growing but new opportunities are not added to the existing one. But, if along with expansion of current businesses, enough new businesses had started, the growth rate would have been much higher.

5.07 Reasons for not taking loan

On an average, 46.77% SMEs and MSMEs in rural areas are not carrying any loan at present. So, identifying the problems is crucial. These SMEs and MSMEs required loan financing for growth but there are some issues for which they are reluctant to take loan. If these issues are resolved then they would take loan.

Table-5: Reasons for not taking loan (%)

Area	No Need	Rigid Procedure	High interest rate	Collateral	Absence of Govt. Agencies	Lack of desire
Chengar Chor	55.56%	11.11%	33.33%	0.00%	0.00%	0.00%
Kalipur Bazar	77.78%	0.00%	22.22%	0.00%	0.00%	0.00%
beltoli Bazar	50.00%	0.00%	50.00%	0.00%	0.00%	0.00%
Dhamura	36.00%	12.00%	24.00%	4.00%	4.00%	20.00%
Average	54.83%	5.78%	32.39%	1.00%	1.00%	5.00%

Source: Authors survey

Rigid procedure includes all the processes required to get a loan. For example, one of the respondents informed us many documents are needed to be submitted to get a loan from Government Bank. Another entrepreneur informed that he was waiting for a loan for more than two years after his application. The rigid procedure mainly applies for the government banks where the cooperatives require minimum documents and it is also true for MFIs. However, private commercial banks' process is also not too encouraging for the SMEs and MSMEs. On an average, 5.78% SMEs and MSMEs did not take any kind of loan because they felt the procedure is too rigid for them and they may not get the loan in time.

High interest rate is also a major drawback. Among the rural entrepreneurs 32.39% think the interest is too high to have loan financing. One of the entrepreneurs provided us with an example that though the written interest rate is 12 percent but he had to pay more than 70 percent. So, the enterprises are well aware of the real interest rates and thus they are not taking any loan. The interest is high for private commercial banks that provide long term financing whereas cooperatives provide short term financing with high interest rate. The interest rates of MFIs are also high as the repayment is made on daily or weekly basis. Though, the interest rate is low of government banks but because of other reasons rural entrepreneurs are not encouraged to take support from them.

Most of the commercial banks require collateral such as land, property etc. Cooperatives are based on local trustworthiness and MFIs are based on group activities. The collateral has to be immovable property which the rural entrepreneurs lack. And entrepreneurs do not have good perception about collateral as from previous experiences with local individual lenders. However, it is not a major concern as on an average only 1% of SMEs and MSMEs consider this as the reason for not having loan financing.

One of the interesting findings is rural entrepreneurs who did not considered loan financing as a source of capital would have considered it, if they had found government services available. Still only 1% on an average considered this but those who have taken loan also informed that they would rather prefer government services. One may think it is mainly because of a tendency of default, but surprisingly there are only a few cases of defaults in recent days.

The SMEs and MSMEs of the selected rural areas like most other parts of Bangladesh have unique demand. Most of them informed that the repayment system of the loan is not desired. Sometime they need to pay high amount of principal in early periods. MFIs and cooperatives have a repayment policy based on daily or weekly basis which rural entrepreneurs feel troublesome. On an average 5% SMEs and MSMEs feel if there were products which fulfilled their demand they would have considered loan financing as an option.

Surprisingly, highest number of SMEs and MSEMs (54.83% on an average) responded that they are not interested in loan financing at all. And the main reason behind this is the general perception of people about loan and the prior experiences. They would rather have current profitability than take loan and improve their condition. This is the area where a number of awareness programs need to be targeted.

5.08 Required more capital

The SMEs and MSMEs are performing well in terms of profitability and growth, but most of them lack adequate capital.

Table-6: Need for more capital (%)

Area	Yes	No
Chengar Chor	44.44%	55.56%
Kalipur Bazar	35.71%	64.29%
beltoli Bazar	44.44%	55.56%
Dhamurai	87.00%	13.00%
Average	52.90%	47.10%

Source: Authors survey

On an average 52.90% SMEs and MSMEs of rural areas needed more capital and they are aware of the inadequacy. They feel that with additional amount of financing they could grow further as there is scope for expansion.

On an average 47.10% of the respondents consider that they do not need more capital. These SMEs and MSMEs are the businesses which have few market demands or there is

no scope for growth. In general, most of the businesses are running at their growth stage, so they need more capital.

5.09 Desired financial services

We tried to find out what needs to be done to meet the SMEs and MSMEs' demand as we are concerned with demand side constraints. The result is not surprising; the entrepreneurs of Dhamura are willing to take loan financing if they have their demands fulfilled.

Table-7: Required services from financial institutions (%)

Area	Simple Procedure	No Collateral	Low Interest Rate	Availability of Govt. Service	Desired Amount of Loan	Not Interested
Chengar Chor	14.81%	11.11%	44.44%	7.41%	7.41%	14.81%
Kalipur Bazar	21.43%	0.00%	57.14%	0.00%	7.14%	14.29%
beltoli Bazar	22.22%	0.00%	66.67%	0.00%	11.11%	0.00%
Dhamura	12.00%	12.00%	36.00%	12.00%	20.00%	8.00%
Average	17.62%	5.78%	51.06%	4.85%	11.42%	9.28%

Source: Authors survey

This question was asked all to the rural entrepreneurs who have taken loan financing and who have not. The objective was to find out possible guidelines as they are the people who would take the loan and what they think matters most.

On an average 17.62% entrepreneurs think the procedure to get loan need to be a simple one. The time required to collect the fund should not be long. And preparing documents includes high amount of transaction costs for them, as most of them never had the documents like chairman certificates or reference before. This cost need to be minimized to serve them as well as the time.

It is already mentioned that the interest rate is too high for SMEs and MSMEs when we consider cooperatives, commercial banks or even MFIs. And it is the area where most of the entrepreneurs are concerned about. Those who have taken loan from one of the sources are unwilling to have further loan until they have sources providing loan at a lower interest rate. On an average 51.06% entrepreneur considered interest rate needs to be lowered.

As, most of the enterprises have no collateral suitable for the loan financing from commercial banks and government banks for long term financing, they think either the types of collateral need to be changed or the requirement of collateral need to be removed. On an average 5.78% rural entrepreneur considers collateral is the barriers for the expansion they seek with the help of loan financing.

Another 4.85% SMEs and MSMEs feel government service could be the solution. They feel commercial banks and other non government institutions are concerned with generating profit. The interest of government is public welfare and the rural entrepreneurs think only the government service could help meeting their demand.

Specific products need to be developed for the needs of rural SMEs and MSMEs. Both the government and non government institutions need to be well aware of this fact and try to serve them with their desired product. In rural areas the cooperatives are filling the gap and the entrepreneurs are paying the price with high interest rate. On an average 11.42% small entrepreneur considers that they are underserved with desired products in terms of loan financing.

Though, most of the respondent who did not considered loan financing as a source of capital because they did not have any interest in loan at all, but in general the rate is only 9.28%. But this portion of the market segment needs to be evaluated as well. There is lack of information to them and the perception about loan financing need to be changed.

As we all know, with the limited amount of internal resources they cannot grow further. To move further these SMEs and MSMEs should have access to financial services. Another important thing is that, the participation of woman entrepreneurs need to be ensured because they cannot overcome the barriers to get access to finance. Most of the rural entrepreneurs, irrespective of gender feel the road for expansion is not encouraging for them. A number of things can be done for that. But for now, access to finance is still limited in rural areas of Bangladesh leading to slow economic development.

6. Conclusion:

Access to finance remains limited to small and micro enterprises. The study reveals that a small percentage of enterprises started their business with the help of loan, which indicates the access to finance is limited to startup a business in the locality. And this scenario remains almost same in the following stages of the business. There are sources available for loan financing but these sources provide inadequate amount of fund or the products are not suitable for the small and micro enterprises. The study also reveals that the most desired service provider is government institutions and the people in rural areas still prefer government services. But unfortunately a few entrepreneurs get loan from government bank. The main sources of financial services to rural entrepreneurs are BRAC Bank, MFIs, cooperatives and others.

Most of the enterprises used internal funds and retained earnings for working capital and occasionally used loans for new investments. Instead of borrowing, SMEs and MSMEs do not try to expand their business until have built internal resources. These enterprises do not seem excluded from financial markets due to poor financial performances. Many of these firms have strong returns and vigorous long term profitability but they seem to be excluded from financial markets because there is a gap in the market and because lending requirements are not adapted to the business needs of this segment. The main issues constraining the access to finance are rigid procedures, high interest rate, collateral requirement and non customization of financial services. Lastly, rural entrepreneurs desire the procedure to get a loan should be simple one, interest should be low, collateral requirement should be limited and specific products need to be developed for the needs of them. The entrepreneurs also demand more involvement of government banks in rural financial services.

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QUESTIONNAIRE
A Survey on
"Access to Rural Finance Services in Bangladesh"

GENERAL INFORMATION

Respondent's Name:

Occupation: **Age:**

Enterprise Name:

Nature of business: **Area name:**

A. Capital sources at the beginning of the business

1. What was the main source of capital for initial investment in your business?
   a. Own capital
   b. Help of Relatives
   c. Loan
   d. Sale of property
2. When did you establish your business? Year----------

B. Use of loan financing at present

3. When did you take the first loan for your business? Year----------
4. Why didn't you take loan earlier?
   a. Loan was not needed
   b. Difficult, lengthy and rigid procedure (many documents are needed)
   c. High interest rate
   d. Collateral/Mortgaging property required
   e. Absence of Govt. Agencies
   f. Lack of desire (Not interested)
5. Do you have loan at present for your current business?
   a. Yes
   b. No

C. The reasons for not taking loan

6. If you do not have the loan then what is the reason?
   a. No need for loan
   b. Difficult, lengthy and rigid procedure (many documents are needed)
   c. High interest rate
   d. Collateral/Mortgaging property
   e. Absence of Govt. Agencies
   f. Lack of desire (Not interested)

D. Sources of Loan

7. If loan is taken for business, which of the following sources are used? Please mention the name
   a. Government banks
   b. Private Banks

c. Microcredit Financing Institutions (MFIs)
d. Cooperatives
e. Others informal sources like individual lenders

8. Is the interest higher?
   a. Yes
   b. No

E. Purpose of using the loan financing

9. What is the reason for taking the loan?
   a. For expanding the current business
   b. Starting another business (New Venture)
   c. Working capital need or meeting day to day expenses
   d. Paying short term liabilities
   e.

F. Amount of loan:

G. Need for more capital

10. Do you think you need more capital or loan?
    a. Yes
    b. No

H. What can be done to make them take loan financing and expand their business

11. What type of services you want from the financial institutions?
    a. Simple procedure and easy and prompt service
    b. No collateral
    c. Low interest rate
    d. Availability of govt. services
    e. Desired amount of loan
    f. Not interested in loan

12. Which of the following organizations is most desirable to you for taking loan?
    a. Government banks
    b. Private Banks
    c. Microcredit Financing Institutions (MFIs)
    d. Cooperatives
    e. Others informal sources like individual lenders

I. Information regarding loan

13. From how many sources did you take loan for your business and when?

Year	*Institutions*	*Amount*	*Outstanding balance*

J. Information regarding Financial Institutions

14. How many FIs located in your area?

FIs	*Number*
a. Government banks	---------
b. Private Banks	---------
c. Microcredit Financing Institutions (MFIs)	---------
d. Cooperatives	---------
e. Specialized Banks	

K. Additional Information

15. Annual profit from your business BDT----------
16. Annual sales from your business BDT----------

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Calendar Effects on Stock Market Returns and Volatility: Evidence from Dhaka Stock Exchange

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Abstract: The stock market plays a pivotal role in the growth of the industry and commerce of the country that eventually affects the economy of the country to a great extent. Efficient stock market expedites economic growth and development through facilitating easy and reliable source of financing. This study tests the presence of the day of the week effect, the monthly effect, the holiday effect, and the weekend effect on index returns by using the Dhaka Stock Exchange General Index during the period of 1st January 2002 to 31st December 2010 that is also a test of market efficiency. This study presents statistical evidence of calendar effects in both market return and volatility for the entire study period. While the highest returns are observed on Thursday that is in favor of holiday effect and negative returns records on Sunday that validate weekend effect. In Dhaka Stock Exchange high volatility and negative market returns records on Monday that authenticate the presence of day of the week effect. Turn of the month effect is also in plain sight because of higher return on the first three days and last two days of each month. But the empirical evidence demonstrates that existing calendar effect on stock market return and volatility is very diminutive in nature in case of Dhaka Stock Exchange.

Key words: Mean Stock Returns, DGEN-Index, Calendar Effect, Stock Market, Volatility, Market Price, Efficient Market Hypothesis (EMH)

1.1 Introduction

Capital market is an important indicator of economic development that is termed as mirror of the economy. Capital market supplements return to investors, enhances investment, and therefore, accelerates economic growth of the country. Capital market becomes volatile because of changing economic condition or differing economic condition. Again return variation or volatility is also caused by different calendar anomalies (January effect, Weekend effect, Day of the week effect, holiday effect, and turn of the month effect) and these anomalies have been widely studied and documented in finance literature. Over the past few years, calendar effect on stock market return and volatility have drawn extensive attention of macroeconomists, policy makers, researchers, academicians of both developed and developing countries even in Bangladesh. Dhaka Stock Exchange, the prime bourse of Bangladesh had developed slowly starting from 1956 but since 2000 stock market of Bangladesh developed significantly. But extreme volatility of stock market in different time periods is observed that is against of efficient market hypothesis.

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1.2 Objective and Rationale of the Study

Broadly the objective of this study is to elucidate whether there is evidence of calendar anomalies in return and volatility of stocks in Dhaka Stock Exchange. Specific objectives are:

- to investigate the presence of the weekend effect on Dhaka stock market returns and volatility
- to examine the presence of the holiday effect on Dhaka stock market returns and volatility
- to test the presence of the day of the week effect and turn-of the month effect on Dhaka stock market returns and volatility

Over the last decades this matter turns into a center of attention for all stakeholders. The presence of anomalies in returns of common stocks reported for developed markets has intrigued finance researchers since the 1980s. The results reported for most developed markets have led to further challenges to the appropriateness of the Efficient Market Hypotheses (EMH). But for Bangladesh case this sort of workings is rare and so there is need to examine this phenomenon in the context of Bangladesh stock market. For a relational financial decision maker stock return and variance or volatility should take into consideration carefully. This paper will be a helpful indicator for the current and potential investors even for the researchers and policymakers.

1.3 Methodology of the Study

The study mainly employs secondary data. The data set on stock market return and volatility for a nine year period from 2002-2010, is obtained from Dhaka Stock Exchange (DSE) publications, its website, stock exchange reviews, and annual reports. The data consist of daily closing values of the general index of DSE for nine years that comprises all listed companies (table-15 in appendix) of DSE excluding "Z" category companies. Parametric and non-parametric tests were used to test the equality of mean returns and the equality of the standard deviations across the-entire study period. The daily returns of the Dhaka Stock Exchange General Index (DGEN) are calculated as follows:

$$\ln (Pt/Pt\text{-}1) * 100$$

Where, Pt: the stock market index value at date t and t-1.

The ratio multiplied by 100 gives the percent returns for each day. The returns are then calculated for each day of the week. A similar procedure is applied to compute the sample standard deviations of each day's observations. We used the standard deviations in the returns to measure volatility. Then, we tested the hypothesis of equal mean and equal variance as substantiated by non-parametric tests to investigate calendar effect on stock returns and volatility.

DSE General Index with a base-index of 817.62 points started on November 27, 2001. The Index excludes companies of Z Category and is calculated on the basis of price movement of individual stocks. The entire market capitalization excluding the Z category is taken into consideration in deriving the general index.

Index Calculation Algorithm (according to IOSCO Method):

$$\text{Current Index} = \frac{\text{Yesterday's Closing Index X Current Market capitalization}}{\text{Opening Market capitalization}}$$

$$\text{Closing Index} = \frac{\text{Yesterday's Closing Index X Closing Market capitalization}}{\text{Opening Market capitalization}}$$

Current Market capitalization = $\sum$ (LTP X Total no. of indexed shares), Closing Market capitalization = $\sum$ (CP X Total no. of indexed shares)

The 'close to close' data does not contain information about the payment of dividends on stocks to measure stock return (capital gain and dividend gain). However, the exclusion of dividend payments should not necessarily invalidate our results. Many researchers have discovered that their conclusions remain essentially unchanged whether they adjusted their data for dividends or not (e.g., Lakonishok and Smidt, 1988 and Fishe et al., 1993). Hence, they suggest that any dividend bias, which occurs from not employing dividend adjusted returns, is relatively small and is not sufficient to eliminate the calendar effects or to have any impact on their statistical significance.

1.4 Literature Review

There is an extensive literature of calendar effect on stock returns and volatility. The calendar effect in share returns in the U.S has been well documented. Cross (1973) observed the behavior of American stock prices on Friday and Monday, by testing the Standard & Poor's Composite Stock Index. The sample period consisted of the 844 sets of Fridays and following Mondays between January 2nd 1953 and December 21st 1970. In Cross's research, he found that the S & P Composite performed better on Fridays than that on Mondays in terms of mean percentage change, median percentage change and the percentage of times the Index advanced in every one of the last eighteen years. And the difference between the distribution of price changes on Fridays and on Mondays was found to be significant at the 10 percent level in seventeen out of the eighteen years, by using the Mann-Whitney U Test. Finally, Cross concluded that the relationship between price changes on Monday and price changes on Friday was significantly different from the relationship between price changes on other successive business days. That is to say 'the distribution of price changes on Mondays preceded by "up Fridays" is significantly different from the distribution of price changes on other days preceded by an advance: likewise the price changes on Mondays following "down Fridays" are significantly different from price changes on other days following a decline'.

January effect was firstly presented by Wachtel in his paper by noticing Certain Observations in Seasonal Movements in Stock Prices in 1942. Since then, this anomaly has been confirmed across international markets. Rozeff and Kinney (1976), and Dyl (1977) observed the significant excessive returns and volumes during Januaries in the US stock market. Wong and Ho (1986) confirmed that the average daily return in January was higher than that for other months in Singapore. Nassir and Mohammad (1987) found that the mean return in January is positive and relatively higher than that in other months of the year for the Malaysia stock market during the period from 1970 to 1986. In

Canada, the United Kingdom, France and Belgium, similar seasonalities were also found in the previous researches.

French and Kenneth (1980) have conducted a research on Stock Returns and the Weekend Effect, their study found most of the period studied, from 1953 through 1977, the daily returns to the Standard and Poor's composite portfolio are inconsistent with both models. Although the average return for the other four days of the week was positive, the average for Monday was significantly negative during each of five-year sub-periods.

Gibbons, Michael and Hess, (1981) have conducted study on Day of the Week Effects and Asset Returns and discovered that the expected returns on common stocks and treasury bills are not constant across days of the week. The most notable evidence is for Monday's returns where the mean is unusually low or even negative.

Keim, Donald .Robert and Stambaugh, (1984) have documented a study on 'A Further Investigation of the Weekend Effect in Stock Returns'. Their study Includes a longer time period and additional stocks to further investigate the weekend effect. They found consistently negative

Monday returns for the S & P Composite.

Rogalski (1984) examined the January effect together with the day of the week effect. He found that in the USA, January effect was related to the day of the week effect in the way that the Monday returns were on average positive in January but negative for other months. This mixture of seasonalities is also called 'Rogalski Effect'.

Turning now to Asian markets, the-day-of-the-week effect on stock has also been evidenced in several Asian stock markets. Wong *et al.* (1986) reported evidence of day-of-the-week and seasonal effect in the Singapore market. Aggarwal *et al*. (1989) noted day-of-the-week effect in Hong Kong, Korea, Taiwan, Japan, and Singapore, while Ho's (1990) paper finds strong, seasonality effect – an evidence against the EMH - in ten Asia-Pacific markets, further confirming the day-of-the-week effect in Singapore,Malaysia, Hong Kong, and Thailand. Chen, Kwok, and Rui (2001) reported day-of-the-week effect in China, showing negative Tuesdays after 1995 and highlighting that this anomaly disappears once non-normality and spill-over from other countries is taken into account.

Fama (1965), Gibbons *et al.* (1981), Lakonishok *et al.* (1982), Keim *et al.* (1984), and Mehdian and Perry (2001)). Jaffee *et al*. (1985a; b) found a negative Monday effect in Canada and the U.K., but a negative Tuesday effect in Japan and Australia. Condoyanni *et al.* (1987) confirms these findings on the Japanese and Australian markets. Kato (1990) also found that the Tuesday return is negative and Wednesday and Saturday returns are strongly positive in Japan.

Balaban (1994)elucidated a research for the day of the week effect which is conducted on Istanbul stock exchange for a period of 1988-1994. Unconditional log returns were elucidated and regression was run to test whether there is any statistically significant difference every result showed that although the day of the weak effects are present in Istanbul securities exchange composite index returns data. His study also showed that major developed markets that reported daily seasonal are not constant in direction magnitude through different time period.

Poshakwale (1996) conducted a study on weak form of efficiency and day of the week effect in the Indian stock market. He performed study on Bombay Stock exchange for a period from 1987-1994, which was published in Finance India, pp.605-616. His study's results showed that the day of the week effect and the stock market is not weak form efficient. The day of the week effect observed on the BSE pose interesting buy and hold strategy issue.

In 1999, Menyah, who tried to find out the relationship between January seasonalities and the firm size, researched the UK security returns by forming portfolios with different firm sizes. Evidences of January effect were found for the two largest portfolios, and April anomalies were only detected in the three smallest sized portfolios.

Bayer and Kan (2002) conducted a study on the Day of the week effects. Recent stock markets for period of 1993 to 1996; they used daily observations of stock market indices from nineteen countries to determine the daily patterns. Conventional DLS Regression was run with binary dummy variables for each county to test whether there is any statistically significant difference among stock market returns. They determined that in Local currency terms a pattern of higher returns around the middle of the week. Tuesday and then Wednesday and a lower pattern towards the end of the week. Local returns have the lowest volatility towards the end of the week

Thursday and Friday, whereas lower volatility of dollar returns observed on Tuesday.

Kiymaz and Berument (2003) have elucidated an empirical research on the day of the week effect on stock market volatility and volume for a period of 1998-2002. Data consisted on daily prices of different stock returns. Log of each return was taken. They used ARCH & GARCH and QMLE models in their study their results show that highest volatility occurs on Monday for Germany and Japan, on Fridays for Canada and United States and Thursday for United Kingdom. The results also shows that market with high volatility have lowest trading volume.

Nath and Dalvi (2004) have examined the day of week effect and market efficiency evidence from Indian stock market for a period of 1999-2003 by using both high frequency and end of day data for the benchmark. They used robust regression with weights and dummy variables. They found that before introduction of rolling settlement in January 2002, Monday and Tuesdays were significant days. However Friday has become significant after the introduction of rolling settlement. They also found that Mondays have higher standard deviations followed by Friday. And the market is inefficient.

Agathee (2006) elaborated a study on the day of the week effect, Evidence from the stock exchanges of Mauritius. He used daily basis data for year 1998-2006. His study provided the results that Friday returns appeared to be higher compared to other trading days. His study provided further results that the mean return across the five week days is jointly not significantly different form Zero for the sample. Descriptive analysis showed mean returns, which were lower on Thursday.

Chukwuogor (2007) has conducted a study on annual returns analysis, Day of the week effect and volatility of returns of five African stock markets. He conducted the study for a period of 1997-2004. He used closing index values to determine the annual trends in

stock market movements and used regression analysis to determine how much movements relate to each other. He used parametric and non-parametric test to substantiate results. The results show the presence of the day of the week but express insignificant daily returns volatility in most of African markets. There was a high positive correlation of market gains and declines among the markets.

Dimitris and Samitas (2008) documented a study on the day of the week effect patterns on stock market return and volatility. Evidence also exists in Athens stock exchange for a period of 2001 to 2005.They used the conventional OLS methodology on appropriately defined dummy variables and used GARCH model. Their empirical results showed that the day of the week effect in both the returns and volatility equations is present for emerging Athens stock exchange over the period of 1995-200. This study provides very insignificant evidence of day of the week effect pattern in stock market volatility.

The holiday effect is that there are abnormal returns and volumes during the period of pre-holiday and post-holiday. The common finding is that excessive returns and volumes are generated before holidays since investors tend to increase their trading activities before the coming holidays when the exchange will be closed for trading. Fields (1934), French (1980), Jones et al. (1987), Haugen and Lakonishok (1988),Lakonishok and Smidt (1988), Pettengill (1989), Ariel (1990), Vergin and McGinnis (1999), and Meneu and Pardo (2004) have investigated this holiday effect across the international stock markets.

Ho (1990) tested the turn-of-the-lunar-year effect in some Asia countries and regions, such as Hong Kong, Taiwan, Singapore and Malaysia, where people were predominantly Chinese or were heavily influenced by Chinese culture and usually observed and celebrated the lunar rather than Gregorian New Year. He found that pre-1983, three of the four markets, i.e. Hong Kong, Taiwan and Malaysia exhibited a reverse turn-of-the-lunar-year effect, namely for the first nine days of the Chinese new year for Hong Kong, Taiwan and Malaysia, the mean returns turned to be negative. But post-1983, with the increase of foreign participation in the stock markets, these

phenomena tended not to be such obviously.

1.5 Dhaka Stock Exchange: an Overview

The Dhaka stock Exchange is the prime bourse of the country. It was incorporated in 1954 and through its nonstop highly fault-tolerant screen bases automated trading system the exchange has been offering facilities for transparent and highly efficient provisions for secondary market activities of securities. It is characterized by few listed companies in comparison with that in south Asian countries. There are about three thousand companies registered with Register of Joint Stock Companies but only three hundred fifty have been enlisted with DSE. It has been evidenced that there is a good number of blue-chip and commercially viable companies, which can go public to enjoy the benefit of tapping funds through flotation of share but these are not coming forward. Foreign Portfolio Investment has a profound impact on stock markets and ease country's resource constrain for development finance. To reap such benefit of FPI, Bangladesh stock market was opened in April, 1992. But Bangladesh stock market can not attract adequate amount of FPI for lacking of quality shares, absence of sound handling and a dearth of efficient market players. Illiquidity has been rather intensified by the absence of varied tradable

financial instruments. Bangladesh market is mainly equity securities market. There is no market for corporate bond and derivative securities. But the matter of hope is that the process is gong on to launch separate derivative market in Bangladesh. Investors of our country are not well educated and concern and so rumor acts as lubricant rather than analyzing the fundamentals of the company. Stock market crash in 1996 and end of 2010 is the evidence of investor's sloppy investment behavior. Presently the authority of DSE and SEC has taken steps to inform more and to train the investor in order to increase the awareness of investors. Once number of Institutional investors was very limited but right now institutional investor has come forward to participate in trading of shares. Institutional investor like merchant bank, Mutual funds, Pension funds, Insurance Companies has increased the creditability of the market. In spite of having sort of precincts stock market is doing good over the last couple of years. For the last couple of years the prime bourse of Bangladesh developed significantly in terms of market capitalization, total trade volume, turnover and market return statistics (table- 14 in appendix). The general index (DGEN) of Dhaka stock exchange excluding companies of 'Z' Category started on 24th November, 2001 with a base index of 817.637 and it stood at 8,500 as on 31st December, 2010. An increase of 939.58% recorded within the study period. That is clearly an evidence of capital market development in Bangladesh. Market capitalization of DSE was about 25% of GDP in early 2010.

1.6 Analysis and Discussion

A calendar effect is any economic effect, particularly in stock markets, which appears to be related to the calendar. Such effects include the apparently different behavior of stock markets on different days of the week, different times of the month, and different times of year (seasonal tendencies). The term sometimes includes multi-year effects, such as the 10-year (decadal) cycle, or the 5-year parliament election cycle. It also sometimes includes time of day effects. Some theories that fall under the calendar effect include:

- January effect, January barometer
- Day of the week effect
- Mark Twain effect
- Weekend /Monday(Sunday in Bangladesh) effect
- Turn-of-the-Month effect
- Holiday effect

1.6.1 Weekend Effect

Weekend Effect is a phenomenon in financial markets in which stock returns on Mondays are often significantly lower than those of the immediately preceding Friday. Some theories that explain the effect attribute the tendency for companies to release bad news on Friday after the markets close to depressed stock prices on Monday**.** Others state that the weekend effect might be linked to short selling, which would affect stocks with high short interest positions. Alternatively, the effect could simply be a result of traders' fading optimism between Friday and Monday. The weekend effect has been a regular feature of stock trading patterns for many years. For example, according to a study by the Federal Reserve, prior to 1987 there was a statistically significant negative return over the weekends. However, the study did mention that this negative return had disappeared in

the period from post-1987 to 1998. Since 1998, volatility over the weekends has increased again, and the phenomenon of the weekend effect remains a much debated topic.

In Bangladesh we mean Sunday to determine weekend effect as Thursday is the closing day of stock exchange and Sunday is the first day of the week (five working days in a week). Statistical value in table-1 shows that stock return on Sundays (-0.0001) is lower than the immediate preceding day Thursday (0.0028) for the entire study period. But this return deviation is insignificant. That is partially related to the finance literature that Mondays (Sundays for Bangladesh) returns are often significantly lower than those of the immediately preceding Friday (Thursday for Bangladesh).

1.6.2 Holiday Effect

The tendency for a stock market to gain on the final trading day before an exchange-mandated long weekend or holiday is referred as holiday effect. The holiday effect can be beneficial for traders, who may buy a security in the days leading up to the last trading day and then sell for a higher price on the final day. That is characterized by unusually good performance by stocks on the day prior to market-closing holidays that is Thursday for Dhaka Stock Exchange. The mean return* of final trading day(0.0028) for the entire study period is positive and comparatively records higher return than other working days. Higher return before weekend validates the presence of holiday effect in Dhaka Stock exchange.

Table 1: Statistical output of calendar effect (day of the week, weekend & holiday effect)

	Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**
Observations	415	424	423	423	414
Minimum	-0.07	-0.0664	-0.0709	-0.03	-0.04
Maximum	0.0473	0.23	0.0592	0.0494	0.06
Mean	-0.0001	-.00002	0.0012	0.0015	0.0028
Std. Deviation	0.0126	0.0162	0.0116	0.0103	0.0100
Skewness	-0.4035	6.6109	0.0672	0.2486	0.7823
Kurtosis	3.0723	94.895	5.6051	2.1196	5.0290

1.6.3 Day of the week Effect

Day of the week effect refers to the tendency of stock prices to change significantly in any particular day of the week. In Dhaka Stock Exchange we found the presence of day of the week effect that is Monday effect. Negative returns and high standard deviation (result in table-1) on this day create the market volatile in comparison to other business days of the week. But this volatility is insignificant.

1.6.4 Turn-of-the-month Effect

Turn-of-the-month effect refers to the tendency of stock prices to increase during the last two days and the first three days of each month. Statistical output (table 2 to table 13 in appendix) substantiate that turn-of-the-month effect is obvious in Dhaka Stock Exchange. Mean return* of first three days and last two days is 23.91% and 32.55% respectively that

is significantly deviated from the residual working days return (4.57% only) for the entire study period in the month of January. For the month of February mean return* is 19.73% and 31.9% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 5.57% only. For the month of March mean return* is 22.92% and 17.44% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 5.34% only. In April of the total study period shows mean return* is 29.25% and 28.27% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 5.34% even for the month of May we found mean return* is 19.75% and 17.5% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 1.51% only. In June mean return* for the first three days and last two days of the month records11.38% and 16.26% respectively whereas mean return* of the residual working days is 1.92%. For the month of July mean return* is 10.8% and 15.9% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 1.7% only and For the month of August mean return* is 10.4% and 16.6% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 1.8% only. Statistical value of September record mean return* of 11.1% and 17.97% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 2.0%.For the month of October mean return* is 12.0% and 19.8% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 2.10% only and for November mean return* is 13.1% and 21.25% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 2.40% and finally in December we found the same scenario where mean return* is 13.8% and 20.30% for the first three days and last two days of the month respectively whereas mean return* of the residual working days is 2.60% only. . Standard deviation and variance result for twelve month ascertain that the market also becomes high volatile in that high return time period compare to the residual working days. The Skewness and kurtosis values also validate the same findings.

1.6.5 January Effect

A general increase in stock prices during the month of January is regard as January effect. This rally is generally attributed to an increase in buying, which follows the drop in price that typically happens in December when investors, seeking to create tax losses to offset capital gains, prompt a sell-off. The January effect is said to affect small caps more than mid or large caps. This historical trend, however, has been less pronounced in recent years because the markets have adjusted for it. Another reason the January effect is now considered less important is that more people are using tax-sheltered retirement plans and therefore have no reason to sell at the end of the year for a tax loss. In Bangladesh only dividend gain is taxable income but capital gain is tax free so this effect is not appropriate for Bangladesh case.

1.7 Conclusion

Stock market of Bangladesh developed remarkably for the last couple of years but stock market development and economic growth association is insignificant. Because increasing trend of market capitalization hardly stimulates industrial development and economic growth rather it is the increasing of price level only. In the year 2000 number

of listed securities in DSE was 239 and up to December 2009 it becomes 443 that is only 85 percent growth of listed securities (but with low paid-up capital). Compared to 2,237 percent growth of market capitalization growth of securities is very low. This signifies very few financially sound and big company listed over the last 10 years for raising capital or for risk diversification purposes that enlarge economic growth and capital market depth. Calendar anomalies have effect on stock market return and volatility but it is not the key grounds of market volatility though it is against efficient market hypothesis. Investors of stock market are not enough knowledgeable even the listed companies don't play appropriate role in time. There are also shortcomings of regulatory authorities that sometimes pave the way for some unscrupulous investors to play in the market irrationally that erodes wealth of the small investors and furnish a negative signal for the potential investors that is unexpected in consideration of long term economic growth and market development However, lack of information, only 9 years study period could question the validity of these conclusions for a long period analysis.

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Appendix Tables

Table 1: Statistical output of calendar effect (Turn-of-the-month effect): January (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	SD	Variance	Skewness	Kurtosis
First 3 days	24	0	1.09	2.87	0.2391	0.3989	0.1591	1.5155	0.7681
Last 2 days	18	0.01	1.03	2.93	0.3255	0.4083	0.1667	1.1014	-0.561
Residual working days	73	0	1.03	3.34	0.0457	0.1671	0.027	4.844	23.523

Table 2: Statistical output of calendar effect (Turn-of-the-month effect):February (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	15	0	1.09	2.96	0.1973	0.3498	0.1224	1.9328	2.6540
Last 2 days	10	0.01	1.21	3.19	0.319	0.4417	0.1951	1.3187	0.3622
Residual working days	63	0	1.03	3.51	0.0557	0.1840	0.0338	4.3657	18.897

Table 3: Statistical output of calendar effect (Turn-of-the-month effect): March (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	14	0	1.17	3.21	0.2292	0.3989	0.159	1.724	1.6707
Last 2 days	17	-0.228	1.2614	2.966	0.1744	0.4132	0.1707	1.7816	2.3742
Residual working days	72	0	1.3	3.85	0.0534	0.1937	0.0375	5.1509	28.233

Table 4: Statistical output of calendar effect (Turn-of-the-month effect): April (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	12	0	1.31	3.51	0.2925	0.4464	0.199	1.4828	1.1165
Last 2 days	11	0	1.21	3.11	0.2827	0.3937	0.1550	1.5687	2.0862
Residual working days	69	0	1.16	3.69	0.0534	0.1846	0.0340	4.6459	22.746

Table 5: Statistical output of calendar effect (Turn-of-the-month effect): May (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	16	0	1.25	3.16	0.1975	0.3499	0.1224	2.2893	5.1707
Last 2 days	17	-0.182	1.374	2.986	0.175	0.3827	0.1464	2.1538	5.4637
Residual working days	155	-0.19	1.16	2.81	0.0181	0.1155	0.0133	7.5588	67.280

Table 6: Statistical output of calendar effect (Turn-of-the-month effect): June (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.19	1.33	2.96	0.1138	0.3161	0.0999	2.6969	8.3728
Last 2 days	17	-0.22	1.050	2.76	0.1626	0.3194	0.102	1.6606	2.6018
Residual working days	151	-0.22	1.1	2.9	0.0192	0.1158	0.0134	6.8299	55.361

Table 7: Statistical output of calendar effect (Turn-of-the-month effect): July (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.2	1.11	2.83	0.108	0.276	0.076	2.462	6.454
Last 2 days	17	-0.09	1.157	2.704	0.159	0.341	0.116	2.110	3.967
Residual working days	159	-0.12	1.24	2.8	0.017	0.121	0.0147	7.834	70.27

Table 8: Statistical output of calendar effect (Turn-of-the-month effect): August (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.08	1.2	2.72	0.104	0.28	0.080	2.988	9.163
Last 2 days	17	-0.085	1.250	2.82	0.166	0.363	0.131	2.312	4.800
Residual working days	148	-0.08	1.22	2.8	0.018	0.126	0.016	7.585	62.85

Table 9: Statistical output of calendar effect (Turn-of-the-month effect): September (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.09	1.27	2.9	0.111	0.31	0.100	2.925	8.045
Last 2 days	17	-0.089	1.29	3.055	0.1797	0.410	0.168	2.135	3.504
Residual working days	141	-0.09	1.09	2.89	0.020	0.129	0.016	7.197	53.11

Table 10: Statistical output of calendar effect (Turn-of-the-month effect): October (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.09	1.27	3.12	0.12	0.338	0.114	2.720	6.50
Last 2 days	17	-0.089	1.3592	3.378	0.198	0.4501	0.2026	1.957	2.513
Residual working days	143	-0.09	1.2	3.09	0.021	0.1438	0.020	7.148	52.32

Table 11: Statistical output of calendar effect (Turn-of-the-month effect): November (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.1	1.33	3.42	0.131	0.379	0.144	2.579	5.493
Last 2 days	17	-0.172	1.365	3.613	0.2125	0.4701	0.221	1.557	1.043
Residual Working days	134	-0.14	1.17	3.34	0.024	0.151	0.023	6.154	39.23

Table 12: Statistical output of calendar effect (Turn-of-the-month effect): December (2002-2010)

Time period	N	Mini.	Maxi.	Sum	Mean	Std. Deviation	Variance	Skewness	Kurtosis
First 3 days	26	-0.133	1.386	3.596	0.138	0.382	0.145	2.310	4.464
Last 2 days	17	-0.156	1.458	3.452	0.2030	0.451	0.2034	1.845	2.702
Residual working days	130	-0.136	1.398	3.466	0.026	0.173	0.0302	6.065	39.13

Table 13**:** Market Capitalization Ratio, Value Traded Ratio and Turnover Ratio 2000 – 2009

Year	Market Capitalization (1)	GDP(current price)(2)	Total Value Traded (3)	Total Trade Volume(4)	MCR (5)=(1/2)	TVR (6)=(4/2)	TR (7)=(3/1)
	(crore tk.)	(crore tk.)	(crore tk.)		%	%	%
2000	5,311.66	237,086	12.41	4,034,676	2.24	17.01	0.23
2001	7,069.76	253,546	18.02	4,255,307	2.79	16.78	0.25
2002	6,313.52	273201	25.24	5,433,491	2.31	19.88	0.39
2003	6,920.10	300,580	28.09	4,847,041	2.30	16.12	0.41
2004	13,664.09	332,973	23.30	2,519,627	4.10	7.56	0.17
2005	222,045.58	370,707	26.78	2,490,281	5.98	6.71	0.01
2006	21,542.19	415,728	21.95	2,137,900	5.18	5.14	0.01
2007	47,585.54	472,477	134.26	17,695,463	10.07	37.45	0.28
2008	93,102.52	545,822	330.96	21,364,228	17.05	39.14	0.36
2009	124,133.90	614,795	942.20	43,254,081	20.21	70.35	0.76

Source: Dhaka Stock Exchange and Economic review of Bangladesh (2000-2009)

Table 14: DSE General Index Percentage Change

	Index(GEN)	Change (%)	Cumulative Change (%)
2000	642.68	-	-
2001	817.79	0.272468	0.272468
2002	792.56	-0.03086	0.241612
2003	830.46	0.047822	0.289434
2004	1,318.92	0.588185	0.877619
2005	1,713.17	0.298922	1.17654
2006	1,339.53	-0.2181	0.958437
2007	2,149.32	0.604539	1.562976
2008	3,000.50	0.396022	1.958998
2009	3,010.26	0.003255	1.962253

Source: Dhaka Stock Exchange.website:www.dsebd.org

Table 15: Listed securities in the Dhaka Stock Exchange

Year	No. of Listed Securities
2002	260
2003	267
2004	256
2005	286
2006	310
2007	350
2008	412
2009	415
2010	450

Source: Bangladesh Economic Review-2011

Notes:

1. No. of listed securities includes companies, mutual funds, debentures and government bonds. DSE Indices are calculated on General Share Price Index excluding mutual funds (36), debentures (8) and government bonds (208).

2. * The sign (*) used to analyze Turn-of-the-month effect indicates mean return of the first three days and last two days and residual days of the month for the entire study period(2002-2010).

3**.** "Z" Category Companies: Companies which have failed to hold the current Annual General Meetings or failed to declare any dividend or which are not in operation continuously for more than six months or whose accumulated loss after adjustment of revenue reserve, if any, is negative and exceeded its paid up capital.

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Strategic Planning to Promote Foreign Remittance: Major Sources of Foreign currency and Strategies for Bangladesh

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Abstract : *It is evident that a large part of remittance sent by non-resident Bangladeshis is still coming through the unofficial Hundi or Hawala system. In addition, a major part of the remittance sent goes to unproductive sectors that affect inflation adversely. Under the positive guidelines of the Bangladesh Bank, private banks in Bangladesh are working to beat the Hundi system and winning with help of technology. At the same time, the Central Bank and the private banks are also working together to turn foreign remittance into private investments that could help turn the economy of the country around. The paper also examines the role of the Government, particularly in the context of the country's economic diplomacy. It brings the role of Bangladesh missions aboard into focus and reveals their deficiencies in comparison to the missions of other countries that send manpower abroad. It shows that as a consequence of weakness in economic diplomacy, particularly in the way the missions function abroad, the Bangladeshi expatriates suffer very badly. The paper makes a few key suggestions so that the lip service that is seen from the Government for the expatriates is translated into something meaningful. It recommends a demonstration of political will at the level of the Prime Minister in order to realize the full potentials of the huge foreign remittance for the benefit of the country as well as for the benefit of those who literally put their lives on line for the country.*

Keywords: *Remittances, Illegal system of remittance, Official channel.*

1.1 Background of this paper

Globalization has pervaded the world economy in the recent decades at an unprecedented pace. We are about to enter the third phase of globalization. In the first phase, goods moved globally, in the second please, capital and now it is the turn of skilled labor. Very recently a new trend has been emerged. A global pool of skilled workers, technicians and engineers has emerged and employers in countries at different stages of development are all drawing from this global pool. In the recent past, there has been a significant rise in work-related temporary migration from one country to other along with export of services.

Migrant remittances represent the most direct, immediate and far reaching benefits to countries in the developing world. The number of people living outside their countries of birth is now estimated at about 175 million (CPD report 2009). These are the people who regularly send back part of their income to meet the basic needs of their families and contribute to urgently needed humanitarian causes and socio-economic projects in their

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countries of origin. Migrant workers today provide a constant source of income, an amount that in the case of many countries larger and more predictable than the official development assistance, foreign direct investment and other private flows that such countries receive.

Over a period, international migration has often resulted in reverse migration of people after training abroad. In fact, India, Korea, Singapore and Japan have gained from the higher productivity of such people. This would not have been possible if these countries did not allow its students/professionals to go abroad for higher studies or jobs.

This emerging trend holds significant promises for developing countries that commit themselves towards planning and executing an effective strategy of developing, nurturing and exporting human resources in the coming years. Therefore, earning from remittances is going to constitute a significant and increasing proportion of foreign exchange inflow to such countries in the coming years.

The emergence of remittances as a new strategy for poverty alleviation in developing countries has prompted multilateral institutions, international organizations, foundations, universities and national governments to serious studies. Also to identify and implement measures on how these inflows could be maximized and then harnessed for the development of migrants' countries of origin.

1.2 Objectives of the study

1. To explore and to promote some official and legal channels of foreign remittances through commercial banks.
2. To understand the unofficial and illegal money transfer system of remittance.
3. To identify some effective strategic planning to promote foreign remittance in Bangladesh.
4. To enable the understanding for bank practitioners to highlight the distinctive practice in remittance system.

1.3 Methods

Report reviews and descriptive statistics have been used for analysis some evidence based data. Critical content analysis has been adopted to identify the problems and for conclusive discussion.

1.4 Remittances trend in Bangladesh

The outward migration of labor and the remittances that are generated as a result have been a feature of Bangladesh’s post liberation history. The earliest official records on remittances indicate that the country received about US$24 million in remittances in 1976 (BB report 2009). Since then foreign remittance receipts have grown at an exponential rate.

For any worker sending country, migration results in a mixture of benefits and costs. The costs may include the loss of the labor supply in which substantial amounts of human capital are invested, possible distortions in the age structure of the population, rural depopulation and a “brain drain” to developed countries. On the benefits side, we may see a reduction in social tensions caused by unemployment and/or underemployment,

skill acquisition of returning migrants and, most significantly, money transfers from migrants to their families back home.

The role of remittances in the economies of labor sending countries such as Bangladesh is assuming increasing importance. It is viewed as a very stable source of foreign exchange and even as being counter-cyclical. The effect of remittances on the macro-economy of a country has been well documented in the literature. The incoming foreign exchange helps receiving countries to pay import liabilities, improve their balance of payments position, strengthen foreign exchange reserves and finance external debt.

At the micro level remittances contribute towards increasing the income of receiving households with concomitant effects on the standard of living, while depending upon consumption patterns they have been known to increase the level of savings which is a source of capital. Thus, in resource scarce countries like Bangladesh remittances have a great potential to generate positive economic and social impacts. This fact has been recognized by policymakers and has received attention from researchers.

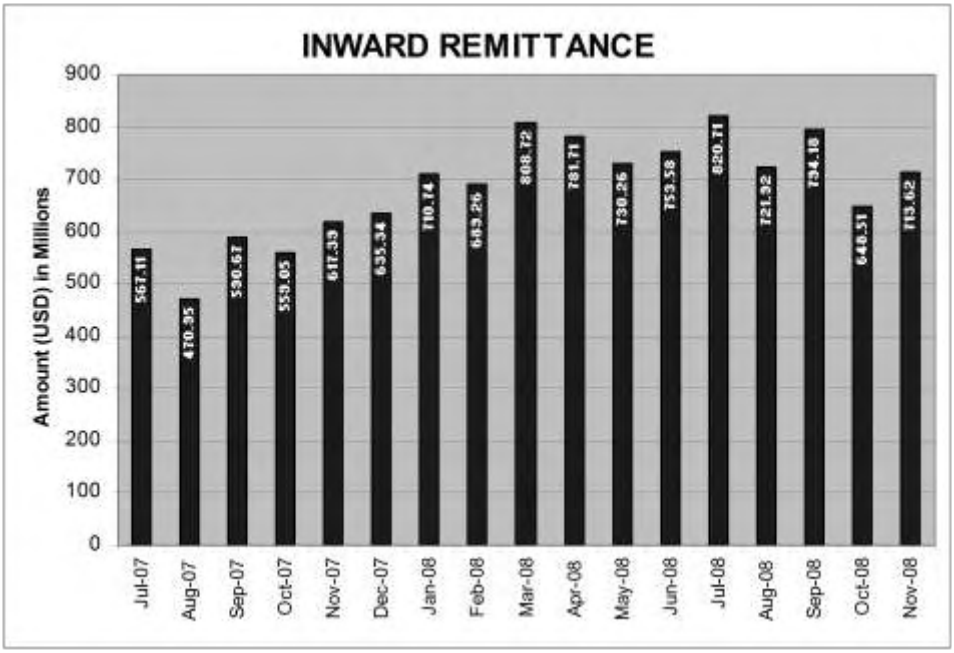
1.5 Remittance Services vide Bank's Infrastructures

One of the outstanding achievements that the vibrant banking industry has earned for the nation is in sending home the hard earned money of our expatriates through the official channel. Although a significant part of the money our expatriates remit is still lost to the illegal Hundi system, last year US$ 11 billion was brought home by the nationalized and private banks of Bangladesh (Bhattachariya *et al.,* 2008). A significant part of the credit for this exceptional achievement goes to the Bangladesh Bank that has shown the vision to challenge the illegal Hundi traders with a policy for the nationalized and private banks that has encouraged the expatriates to use the official channel for remittance. The enormous nature of the contribution that remittance makes to the national economy could be put into perspective by a very simple example. A number of developed nations together pledge Bangladesh aid every year in the proximity of USS 2 million of which a significant part remains unused (Azad, 2004). Yet some of the countries who contribute to this Fund question us on every aspect of our governance, sometimes at the extent of just not humiliating the Government but the nation. In contrast, our expatriates send home many times more money in foreign exchange than all these developed countries together.

In fact, the remittance money from our expatriates is one major reason that has brought the country literally to the doorsteps of becoming a middle-income country. We hear in various for a lot said about remittance and rich tributes paid to our expatriates for their patriotism in sending home their hard earned income. Unfortunately, very little is done for easing the intolerable conditions in which our expatriates toil in areas like the Middle East and Malaysia from where the bulk of remittance comes. At the same time, while it is acknowledged that the remittance contributes a great deal in the development of the economy of the country; no serious effort has been made to turn the remittance money into investment that would not just bring tremendous economic benefits to the country but also transform the money of the remitters into sustainable economic benefit instead of being wasted as it is at present, on purchasing land and in consumer and edible goods that just create inflationary pressures on the economy. The fact that no private or public initiative has yet been seriously taken to determine the flow chart of investment in itself

speaks that in the country, the potentials of remittance has not even been scratched on its surface. The year-wise growth of foreign remittance coming to the country and strategic information regarding remittance is stated below:

Information of Remittance to Bangladesh Jul '07- Nov '08

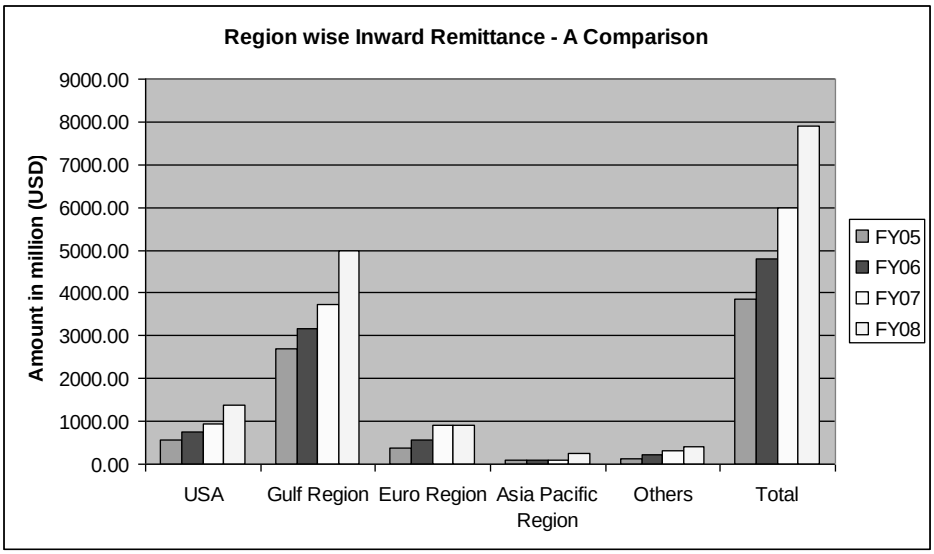


Source: Bangladesh Bank.
** July-August FY09*

Region Wise Inward Remittance (In Million USD)

Country	FY05	FY06	FY07	FY08	FY09*
USA	553.90	760.70	930.30	1380.10	264.17
Gulf Region	2693.10	3161.00	3729.90	4971.70	922.80
Euro Region	382.60	567.60	901.80	923.00	151.94
Asia Pacific Region	89.80	95.00	102.20	238.80	53.72
Others	129.00	217.60	314.30	401.10	149.99
Total	3848.40	4801.90	5978.50	7914.70	1542.62

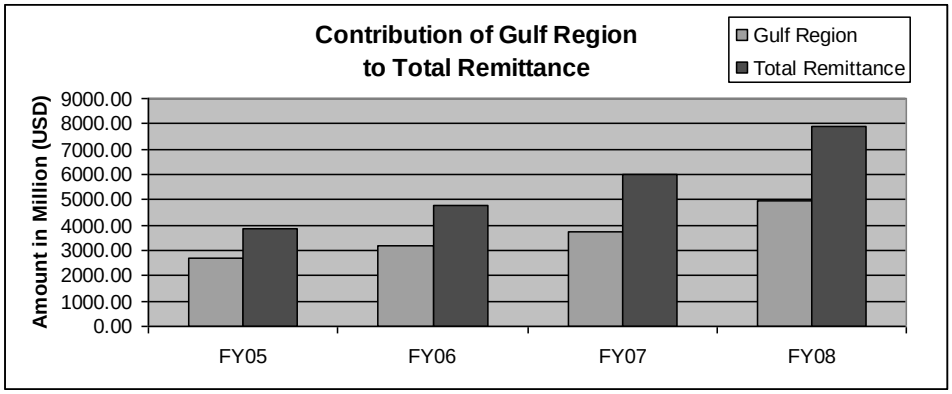
Source: Bangladesh Bank
** July-August FY09*



Source: Bangladesh Bank.
** July-August FY09*

Contribution of Gulf Region Remittance to Total Remittance (Million USD):

Year	Gulf Region	Total Remittance	% of Total Remittance
FY05	2693.10	3848.40	69.98%
FY06	3161.00	4801.90	65.83%
FY07	3729.90	5978.50	62.39%
FY08	4971.70	7914.70	62.82%



Source: Bangladesh Bank.
** July-August FY09*

1.6 Remittance Problems in Bangladesh

Problem Faced by Expatriates:

Most of our expatriates come from our villages. A large part of them are not skilled. Many of them land in the country of their work right out of their villages and find adapting in an inhospitable place as most of the places where our expatriates work are, a struggle in which a lot of them lose their lives. The problem of our expatriates start at home, where many of them become victims of the manpower exporters who often pay little attention to the need to train them so that they know beforehand about the environment where they would be living and working. Another major problem our expatriates face in their place of work is the difference between payment promised by the manpower agent and what is actually offered to them upon arrival. The difference is often substantial that makes it very difficult to pay back the money they borrow to go abroad usually from money lenders at an exorbitant rate of interest.

Use of Unofficial Channels:

The unofficial channels not only help illegal inflow of remittances into the country but also facilitate the illegal transfer of local funds and resources abroad. The unofficial channel to remit funds into Bangladesh has grown over time. A study by the IMF reveals that during 1981-2000 the share of private remittances through unofficial channels was 59 percent of the total. The reason for the more popular unrecorded private remittances to Bangladesh is the simplicity for the system. Compared with formal banking channels, the hawala system is not only generally less expensive but can also be a more accessible and convenient option for the smooth transfer of remittance funds. Another study conducted by the International Labour Organization (ILO) reveals that :

> *"In Bangladesh, 46 percent of the total volume of remittance has been channeled through official sources, around 40 percent through hundi, 4.61 percent through friends and relatives and about 8 percent of the total was hand-carried by migrant workers themselves when they visited home. Others include the sale of work visas."*

Considering the above statistics of the IMF and ILO, it is evident that 40 to 59 percent of remittances were made into Bangladesh through hundis. If this amount were made through official banking channels, the foreign exchange reserves of the country would be much higher. The figures quoted above would demonstrate the need to strengthen efforts to prevent illegal financial transactions through illicit channels.

When remittance started as a big time business involving billions of US dollars decades ago, there were two major problems in remittance. First, there were very few carriers such as banks and exchange houses. Second, in the early days, there was also large number of illegal immigrants. The legal expatriates had serious problem taking time off from their work to go to the banks and exchange house to remit money back home officially. The illegal expatriates never dared to go to the banks and exchange house that asked for legal papers. They were afraid of getting caught and deported.

There was a third and most important reason why people avoided the legal of official channels. They were slow, sometimes awfully slow. The Hundi operation was much smarter where they went to the remitter to his place of work or residence to collect the

remittance and in many cases; they took such money only after the beneficiary at home had received it. There was thus both security and speed for the remitter in the Hundi system for which the expatriate used it rather than the official channels.

Money Laundering Issue:

Money Laundering is now a serious issue and has become more organized, sophisticated, technical and increasingly international in nature. In the Money Laundering Prevention Act promulgated in Bangladesh in April 2002, illegal acquisition of assets and the act of, or aiding and abetting transfer, transformation and concealment of such assets are identified as money laundering offences. Money Laundering has potentially devastating economic, security, and social consequences. As an implementing authority under the Act, Bangladesh Bank has set up an Anti-Money Laundering Department to take on the responsibility of countering money-laundering, and has taken various measures to protect the banking industry from being used for money laundering.

Money Laundering has been identified as one of the five core risk areas where the commercial banks need to exercise special caution. In order to enable the banks to prevent the banking system from abuse by money launderers, BB has formulated detailed guidelines for the commercial banks to follow. To ensure that the banks follow the guidance notes, the BB conducts system audit of the commercial banks.

The Money Laundering (Prevention) Act 2002 requires BB to train the officials of the banking industry with regard to Money Laundering issues. From January 2006 to June 2006 a total number of 5,752 branch managers participated in managers' conferences all over the country. The program was almost fully completed by September 2006. The total number of bank officials covered by the BB training program was 790 at the end of June 2006 (BB report, 2007).

Bangladesh Bank is in the process of setting up an FIU with the Anti-Money Laundering Department. As a first step in this direction, a database is being created for CTRs and STRs. The BB works in close collaboration with government departments and law enforcement agencies to track ML offences.

Lack of Coordination:

In matters of helping the expatriate, the Embassy has a very important role to play. The role falls upon the Ambassador and the Labour and Consular officers of the Embassy. At present, Bangladesh has been unable to bring the Embassy into the loop to assist the migrant worker. The problem lies to a great extent at home where there is a Ministry of Expatriate Welfare to look after the migrant worker and the Embassies work under the Ministry of Foreign Affairs with very little coordination between the two. Again, the Ambassadors are from the Ministry of Foreign Affairs who has little or no assistance from the Ministries that are responsible for the expatriates and hence they cannot play any major role in looking after the welfare of the migrant worker.

Trade diplomacy proved to be ineffective:

Twenty-five of 44 Bangladeshi diplomatic missions abroad have failed to achieve their respective export targets in the first four months of 2006-2007 fiscal year (Khawaza Main Uddin, New Age, 16 Jan 2007), reveals an official evaluation report, reflecting a

lacklustre performance in the country's trade diplomacy. The missions having commercial wings showed a relatively better performance in export promotion although seven out of 16 such missions still missed the export target set for the period, according to the report prepared by the Export Promotion Bureau under the Ministry of Commerce. Some commercial ministry officials, when asked about such performance, attributed this chronic failure to 'lack of expertise among the so-called trade diplomats who should be well conversant of technical issues pertaining to today's international trading regime. Yet, the overall export earnings during the said four months at US$ 4.127 billion was slightly higher than the strategic target set by the bureau at US$ 4.102 billion. The export earnings during the corresponding period of the previous fiscal was $3.345 billion (BB report 2009). The missions that have failed to reach the export targets despite having commercial wings are Berlin, Paris, New Delhi, Tokyo, Dubai, Canberra and Kuala Lumpur — the capital cities that all are potential destinations for Bangladeshi exportable goods or commodities. These missions fell short of the target by US$ 72.5 million even though they helped the country in exporting US$ 1.12 billion or 27 per cent of the total export during the period. However, only the Dubai mission marked a negative growth in export while six others showed certain growth. Nine missions with commercial wings that have achieved the target with US$ 2.2 billion or 52.6 per cent of the export earnings are Washington, London, Brussels, Madrid, Ottawa, Tehran, Beijing, Moscow and Yangon. Their performance has exceeded the export target by US$ 96.6 million, according to the report that has been sent to the commerce ministry for taking future steps. The diplomatic missions without commercial wings that have also failed to achieve export target are Hong Kong, Cairo, Singapore, Islamabad, Bangkok, Riyadh, Colombo, Amman, Kuwait, Tashkent, Doha, Kathmandu, Rome, Manama, Rabat, Manila, Nairobi and Brunei. However, the overall performance of the missions marked slight improvement after criticism by the business community.

1.7 An Alternative Remittance System (ARS)

The banking system is the main channel to remit money in Bangladesh. It is also permissible to remit money through the postal system. The Alternative Remittance System (ARS) in the form of Hundi or hawala is not permissible but practiced as an illegal way.

Remedies of unofficial channel of Remittance :

DFID (2010) had recently made a detailed study of the remittance infrastructure of Bangladesh and found that channelizing it through the Bank is not sufficient to provide the adequate infrastructure, appropriate priority, even proper logistics in managing the funds. Options to explore alternatives in addition to the banks are being considered very seriously with appropriate infrastructures. A project had been established to provide permits to initiate the infrastructure independently with banking institutions as the gateway only.

Now at this stage, it is more impertinent to consider the option to avail permission to initiate such a process and correlate it with an infrastructure which has similar services/visions in place. With the availability of a detailed comprehensive database and a functional call centre, a very valuable infrastructure that is actually becoming a strong

industry is the Remittance services infrastructure. It may be noteworthy that the incoming remittances in Bangladesh are very large in number however that requires adequate management and skills.

An automated infrastructure both abroad and locally, will create a smooth pathway for remittances to actually initiate in the country of residence of the workers and employees right up to their home villages in Bangladesh. The purpose of this project is actually to automate the infrastructure in cooperation with a Bank at both ends and subsequently take over the services of the remittances so as to give a smooth passage way. Once this is in place the purpose of this project is to actually initiate cross selling opportunities so that the fund sent to Bangladesh is not only for the home but also for the remitters to make viable investments in their home country.

As the subject of money laundering and other internal control and compliance issues arise there must be a bank to front this project along with the institution initiating this project. The purpose is to actually provide a vast and diverse form of service to the Non Resident Bangladeshis and to ensure a more cost effective proposition than those they are presently envisaging or utilizing at their Country of employment.

(a) **For present Instance** – Southeast Bank has recently formulated a policy to extend loans to the potential migrant worker at 12% interest to help him pay the manpower agent and for training and other related fees. The Bank has named this product as Probashi Rin that it has introduced as a partner in a project of DFID and Bangladesh Bank. The object of this product is to save the potential migrant worker from going to the money lender to borrow money at an exorbitant rate of interest that often leads to loss of his land and other possessions as he is unable to pay it back. The other positives of the Probashi Rin are:

1. It will bring the private banks with its huge financial abilities into the remittance business.
2. The banks will bring transparency into the remittance business because its legal expertise will help the potential expatriate worker get his legal papers checked to detect the cases of fraud.
3. The Banks under SEBL's policy will provide the loan to those workers who have received training. At present, a large portion of our expat workers go abroad without training and hence receive lower pay.
4. The potential expat worker who will receive SEBL's Probashi Rin will be required to open an account with the Bank and an agreement to pay back his loan in installments that will encourage him to use the official channel for remittance.
5. His beneficiary will also be required to open a bank account with SEBL. This will eventually be a source for the bank for low cost deposits.

(b) **Initiatives from Private & Public Commercial Banks:**

Now a day's most of the private and nationalized commercial banks of Bangladesh are doing remittance business. Abroad, there has been floodgate of exchange houses that are located within short distance from where the expatriates work. Furthermore, the number

of illegal expatriates has fallen dramatically and the speed of remittance through the official channels has also substantially improved to match the Hundi operation. A good number of expatriates these days use the official channels because of huge promotional campaign by Government as well as banks, aware them that their money goes to the economic development of the country.

The present Governor of Bangladesh has taken a step to bring the poor farmers into the banking system. According to a directive of Bangladesh Bank, all private banks must now help farmers open accounts for a nominal amount of Taka 10 to entitle them to get loans earmarked for them by another directive of Bangladesh Bank. Normally it takes much more money to open an account in any private bank in Bangladesh. Private Banks are encouraged to open banks in rural areas by Bangladesh Bank. In fact, for permission of a branch in the cities like Dhaka, the Banks must open a few more in the rural areas and the ratio to open urban to rural branch is 5:1.

(c) Key Policy Suggestions:

1. The expatriate workers must not be allowed to be charged by the Manpower Copanies at the high rate as they are being charged of prudent. The rates can be set easily by studying the rates charged by manpower agents in other South Asian countries for instance.
2. The expatriate workers must be saved from becoming a prey to the money lenders. The present Governor of Bangladesh Bank has initiated steps to make credit available to the farmers by encouraging private and nationalized banks to help farmers and ultra-poor opening accounts on a nominal payment of Taka 10 only. As an extension of this initiative, these banks could extend the same facility to the remittance beneficiaries also.
3. The Government should make it mandatory that no worker can be sent abroad without training that should include information and knowledge about the conditions the worker is likely to face in his destination country.
4. The Bangladesh Embassies at present are brought into the remittance framework only when problems arise. Time has come to bring the Embassies into the remittance framework in a pro-active manner for the benefit of the workers and the country and bring transparency and integrity into the business.
5. It is a fact that in the Middle East, Bangladeshi workers get considerably less pay than workers from other South Asian countries because their Embassies fight and ensure that their workers are paid well of our embassies should be directed to play the some role so that.

1.8 Conclusion

The growth of remittance is huge and its impact upon economic development of Bangladesh is remarkable. So has been its positive impact upon poverty alleviation. Foreign remittance that is sent by more than 7 million Bangladeshis abroad also is tyeing to overcome to me issues and problems. It is the time to set all the above issues in a good and appropriate order. That would be very easy if there is political will at level of the Commercial adminstrative. Bangladesh could just copy ditto what for example India or Sri Lanka is doing and the problems would be resolved. Unless the expatriate worker has the full weight of the Government extended by the Embassy behind them, they will

continue to languish in terms of their pay and other privileges that are below the expat workers of other countries who have their Government and the Embassies behind them.

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An Empirical Study on the Foreign Direct Investment Climate in Bangladesh: Applicability of the Purchasing Power Parity Theory and International Fisher Effect

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Abstract: *In these very days, Foreign Direct Investment (FDI) is not an option rather strategically a key factor in economic development of a country. What makes the flow of inbound FDI more conducive and what hinders the smooth flow is the arena of perplexing controversies and dilemmas. Market size, tax, wage, openness, exchange rate, tariff, growth, trade balance and whole host of economic variables have been considered by the researchers to dig out the potential impact these variables might have on the inbound FDI. But in explaining FDI, two very common and well-known theories: 'Purchasing power parity theory (PPP) and 'International fisher effect' (IFE) are frequently discussed. Besides, now-a-days country risk analysis (CRA) is performed for evaluating the potentiality of attracting FDI in a country. This study is an attempt to explore and identify whether these two theories are effective enough in explaining the FDI in the context of Bangladesh alongside an analysis on the country risk analysis on Bangladesh for evaluating its potentiality of ensuring FDI in the country*.

Key Words: Foreign Direct Investment, PPP, IFE, CRA

1.1 Introduction:

Globalization has become the most pressing issue of this time. The recent trend of globalization represents the magnitude of the growing interdependence among the countries. In the era of globalization, one of the most incredible trends in the world economy is its increasing global economic integration and growing internationalization which has been taking place over the past two decades. This trend is being reflected in terms of the rising share of international trade and foreign direct investment (FDI). After the 2nd world war, in the face of economic depression some institutions (identified as the 'Breton Woods' institutions) emerged to rule out the whole world in favor of rich countries through 'Beggar-Thy-Neighbor Policy' as they realized accumulated capital needs to be invested. Since then rich countries started investing their capital in poor countries to accommodate their development.

FDI is usually an international capital movement. According to the Balance of Payments Manual, FDI refers to investment made to acquire lasting interest in enterprises operating outside of the economy of the investor. Until the mid-eighties, many countries were very suspicious of the effects of FDI in their economies. As a result, different types of restrictions in form of restrictions on capital and profit repatriations, performance requirements etc were imposed to prevent its flow. However, since the mid-eighties,

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many researchers have treated FDI as a stimulus of economic growth of the poor countries; others have criticized its influence considering the rich countries make FDI to capture the internalization, localization, and ownership advantages. The output of vast analysis is different types of theories in explaining FDI. 'Purchasing power parity theory (PPP)' and 'International fisher effect' (IFE) are two theories, which focus on the rationality of the exchange rate movement between two countries, that ultimately drives the flow of FDI. Moreover, in recent years, policy makers and multinational organizations have progressively emphasized the significance of a sound investment climate for promoting economic growth in developing countries, which ultimately suggests the significance of performing 'Country risk analysis (CRA)' to justify a country's ability to attract FDI.

Bangladesh is a developing country having very low per capita income (629 US$ in 2009). Since independence, Bangladesh is trying to attract FDI considering its shortage of capital and contribution of FDI towards its economic solvency. The country is modifying its policy frameworks by developing special zones and lucrative incentive packages in order to attract as much FDI as possible and develop a meaningful partnership with foreign firms. Bangladesh achieved only 0.05% of total FDI while the proportion was 0.9% in India, 0.52% in Vietnam, 10.2% in Indonesia, and 70% in China. The statistics show that china has become the most attractive destination for FDI for its abundant cheap labor- supply and large domestic market with strong consumption behavior (Ref: UNCTAD, 2003). Although Bangladesh offers attractive package facilities for foreign investors, FDI flow in Bangladesh is lower than the countries with similar advantaged.

1.2 Objective of the Study

The primary objective of the study is to explore what actually Bangladesh deserves considering investment climate in the globalied process of current world. In order to achieve this objective, the study includes the following sub objectives:

- Evaluating the applicability of the PPP theory in explaining FDI flow in Bangladesh
- Exploring the effectiveness of IFE theory on FDI of the country
- Performing country risk analysis from the perspective of political, economic and financial environment of Bangladesh in evaluating the potential FDI flow towards the country

1.3 Methodology

An exploratory research had been conducted in the study. Theoretical and practical studies had been incorporated. Relevant literature reviews were done extensively. Mainly, secondary information was taken into account for the study. Internet resources from various websites had been facilitating in locating and gathering data. Data, especially on inflation, interest rate and exchange rate, collected from different sources were critically compared and found negligible mismatching. Conventional statistical tools, like - graphs, charts and diagrams were used to demonstrate the FDI climate of Bangladesh. Multiple regression was applied for the evaluating the applicability of the PPP and IFE theories for Bangladesh with USA. USA currency, Dollar was selected for the purpose of analysis as dollar is the most widely used currency of the world.

PPP, IFE and Country Risk Analysis: Basic Concepts

Purchasing power parity theory (PPP): FDI flow is closely related with inflation rate differential between the home country and the host country, that is if the inflation rate of Bangladesh as compared to the USA increases, the exchange rate will increase, value of dollar will appreciate and FDI flow to the country will decline. The reason is explained by Shapiro (1998) as if all other things remain equal, an increase in a country's expected rate of inflation or actual inflation makes the country's currency more expensive to hold over time. PPP theory from the standpoint of exchange rates seeks to define the relationships between currencies based on relative inflation. According to the PPP theory, if any inflation rate differential exists between two countries, funds flow between two courtiers take place in such a way that the exchange rate is adjusted and finally the inflation rate differential between the courtiers no longer exists.

According to PPP theory, $$e_f = \frac{1 + I_{BD}}{1 + I_{USA}} - 1$$

Where,

e_f is the change in exchange rate

I_{BD} is the inflation rate for Bangladesh

I_{USA} is the inflation rate for USA

International Fisher Effect (IFE): Nominal interest rate is the real interest rate plus inflation according to the Fisher equation. If the interest rate differential exists between two countries, fund will flow between two countries until exchange rate between the countries is adjusted in such a way that interest rate differentials between the two countries no longer exists. That's why Shapiro (1998) states if the real return is higher in one country than another, it would lead to a flow of capital to the country with higher rate of return until expected real returns are equalized. For example, due to the higher inflation in Bangladesh, the nominal rate of return changes, for which exchange rate of the currencies increase over time, ultimately results in the depreciation of taka and appreciation of dollars. That is the exchange rate moves against Bangladesh. Now due to the high interest rate, the two opposite situation will be created for Bangladesh and USA. For high interest rate, investors will invest a higher amount in Bangladesh. But high interest rate will lead to high inflation rate that will deteriorate the earnings generated from high interest rate. In this process, the investors will no longer be able to generate profit higher than what they would be able to generate in home country. This is the basic of IFE theory. If the theory holds, then if any interest rate differential exists between the countries, the exchange rate will move to the direction so that the no profit opportunity will be generated from the interest rate differentials.

According to IFE theory, $$e_f = \frac{1 + i_{BD}}{1 + i_{USA}} - 1$$

Where,

e_f was the change in exchange rate

i_{BD} was the interest rate for Bangladesh

i_{USA} was the interest rate for USA

Country Risk Analysis (CRA): International country risk guide (ICRG) suggests a country risk rating system for explaining potentiality of FDI of a country. It assigns a numerical value to a predetermined range of risk components, like: political, economic and financial condition. All countries are assessed on the same basis to allow for comparability. The sum of the risk points assigned to each risk component within each risk category determines the overall risk rating for the risk category. The total risk points for each risk category are further combined to produce a composite risk rating for a country.

1.4 Literature Review

Bangladesh has long been trying to attract FDI to support its internationalization process. The government of Bangladesh introduced open door economic policy and implemented macro and micro economic reform programs to exert a pull on foreign investment. However, by international standards, Bangladesh could attract only an insignificant amount of foreign capital. One of the reasons of that failure is its unfavorable climate for FDI. Experts believe developing the infrastructure, particularly Chittagong port is an utmost priority for developing FDI potential in Bangladesh. The World Investment Report 2005 showed global FDI flows increased by 2% to US$ 648 billion in 2004 after three-year of declining trends with inflow to developing countries surging by 40% to US$ 233 billion. Macro-economic factors like improved economic growth, weak US dollar, reduction of country risk and improved business confidence and micro-economic factors, including increased profit and favorable financing condition, are the factors behind recent rebound of global FDI flows.

FDI is a linking part of an open and effective international economic system and a major influencing factor to bring development but it is not easy to get benefits from FDI. National policies and the international investment architecture are important to attract FDI to a larger number of developing countries and for reaping the full benefits of FDI for development. The challenges initially focuses on the host countries that needs to set up a transparent, broad and effective enabling policy environment for investment and to build the human and institutional capacities to implement them (Khan M.A.R). The Global Competitiveness Report (GCR) 2005-06 placed Bangladesh in 110th position among 117 countries due to persistent corruption, poor infrastructure and indecisiveness on the part of the government which distracted FDI.

According to Jason Van Bergen (Investopedia), foreign investors inevitably seek out stable countries with strong economic performance in which to invest their capital. A country with such positive attributes will draw investment funds away from other countries perceived to have more political and economic risk. Political turmoil, for example, can cause a loss of confidence in a currency and a movement of capital to the currencies of more stable countries. Jeson has also suggested the impact of interest rate differential and inflation differential in explaining exchange rate and FDI flow between two courtiers. But Ronald MacDonald and Luca Ricci (2002) have shown the macroeconomic variables, such as relative real interest rate and relative net foreign assets positions as well as relative productivity levels in the tradable and non-tradable sectors are important in explaining deviations from PPP.

Like PPP, IFE is not free from controversy in terms of its applicability in explaining FDI of a country, though according to Shapiro (1998), investors interested in making profit would move capital from countries with low interest rate to countries with high interest rates. This movement of capital would ultimately cause a movement in the exchange rate, eliminating all profit opportunities. The movement in exchange rate should on average offset the nominal interest rate differential. But Demirag and Goddard (1994) suggest there are contradictory evidences for the existence of an IFE.

1.5 FDI in Bangladesh

A Bangladeshi state policy toward FDI has been elaborated in industrial policies announced and revised from time to time. There has been several such policy package announced since1973. The first industrial investment policy (IIP) announced in 1973 allowed foreign collaboration in public enterprises only with minority equity participation of 49%. The policy played a dominant role to the public sector in industrial ownership and entrepreneurship allowing only a minor role to the private sector. The response of foreign investor to these policies was not encouraging, as could be expected. The sudden shift towards nationalization of private sector industrial unit shattered private investor's confidence. A New Investment Policy (NIP) was announced in 1974 permitting foreign investors to collaborate with both government and local private entrepreneurs expect in some basic industries. The policy was revised in 1975 and the Revised Investment Policy (RIP) allowed foreign investors to collaborate with private sector subjects still however to various restrictions. In 1999, there was a sudden fall in FDI, and again in 2001, mainly because of continued political unrest, which discouraged foreign investment. Subsequently, it took several years to regain the confidence of foreign investors. FDI stabilized afterwards but remained below the heights reached during 1997-2000. In spite of Bangladesh's comparative advantage in labour-intensive manufacturing, adoption of investment friendly policies and regulations, establishment of EPZ in different suitable locations and other privileges, FDI flows failed to accelerate in the next few years. But after the action taken by the government from 2004 it increases and has become higher in 2005. In 2004 the FDI increased by 6.04% and FDI was 660.8 million US $ from 441.4 million US $. In 2005, the FDI flow was at the highest position; the share rose to 1.3% due mostly to the large inflow of FDI to the telecommunications sector. Despite being a recent phenomenon, several underlying factors contributed to increasing the FDI inflow in Bangladesh, such as trade and exchange liberalization, current account convertibility, emphasis on private sector led development, liberalization of the investment regime, opening up of infrastructure and services to the private sector-both domestic and foreign, and above all the interest of foreign investors in energy and telecommunication sector. In the year 2006 FDI has shown a decreasing trend. This year FDI stood at 792.53 million US $. In 1972, annual FDI inflow was 0.090 million US $ (UNCTAD 2005), but after 33 years, in 2005 annual FDI rose to 845.30 million US $. The condition continued till 2007. But in 2008, FDI increased significantly.

Here, a time series analysis on the FDI in Bangladesh das been showed to represent its dynamism from year 2001-02 to 2009-10 financial years. The trend equation for the FDI of the country was:

$$\mathbf{Y= 1282.81+56.81t}$$

Where, Y= for FDI in a particular year

t =selected time periods.

(The calculation was shown in the appendix)

The equation indicates during the period of 2001-02 to 2009-10, the FDI of Bangladesh increased at an average rate of $56.81 million per year. On the basis of the above equation, the FDI of the country for the financial year 2010-11 will stand at $1850.86 million. Through the growth rate analysis, the changes in the level of the FDI over the last several periods were identified in relative terms and based on that it was forecasted for a specific future time period. The growth rate of the country's FDI during the time period of 2001-02 to 2009-10 was 2.36%, indicating that the FDI increased at an average rate of 2.36% per year. On the other hand, through the acceleration rate, the average growth rates of the growth rates were determined in order to reveal the future trend of the growth rate. The acceleration rate of the FDI of Bangladesh for the same time period was -0.71% indicating that in the year 2008-09, the growth rate would decrease at an average rate of 0.71% of the previous year's growth rate. That is in the year 2008-09, the growth rate would be = (0.0236 x 99.29) % = 2.34%.

1.6 Country Risk Analysis for FDI

Country risk represents the potential adverse impact of a country's environment on the multi national companies' cash flows. While making foreign investment, the foreign investors analyze the country risk of the country to select a country where they will establish their company or make their investment. Basically, by evaluating country risk, foreign investors' can easily screen out the country with excessive risk. Bangladesh has little FDI and most of these are longer term in nature. Tighter global credit markets have raised the cost of capital in the international market and are likely to reduce FDI in developing countries. Increasing FDI to Bangladesh depends more on domestic factors such as improvements in infrastructure, power supply, and governance and business practices. Most of Bangladesh's aid sources (nearly 80% of the total) come from multilateral sources. Aid inflows are likely to remain unaffected in the short run although the promises of significant aid increases may not materialize. Aid during FY 2009-10 is not likely to increase as developed countries mobilize resources to tackle their domestic economic problems.

Bangladesh has not been able to maintain a macroeconomic stability due to the political and social unrest in the period 2006-2008. A high inflation rate throughout the world along with world wide financial crisis also has reduced the investment level, employment opportunity, construction and production level. The positive development, which has taken place despite political instability, is the continuous increment of remittances, but it may also face threat due to the world's depression, particularly due to the increasing world market prices. Considering all of these factors, the country risk for Bangladesh from the perspective of its political, economic and financial risks was analyzed in the appendix: 2 in order to evaluate the potentiality of FDI. The output of the analysis is summarized here:

Political Risk Rating: Political risk rating is done by assigning risk points to a preset group of factors, termed political risk components. The minimum number of points that can be assigned to each component is zero; while the maximum number of points depends on the fixed weight that component is given in the overall political risk

assessment. The positive development, which has taken place despite political instability, can particularly be attributed to increasing world market prices and export volumes especially of natural gas, minerals and soybeans. The given risk components, weights and sequence are used to produce the political risk rating:

Sequence	Components	Points
A	Government stability	12
B	Socioeconomic condition	12
C	Investment profile	12
D	Internal conflict	12
E	External conflict	12
F	Corruption	6
G	Military in politics	6
H	Religion in politics	6
I	Law and order	6
J	Ethnic tensions	6
K	Democratic accountability	6
L	Bureaucracy quality	4
Total		100

Table: 1 Political Risk Rating

Due to the impact of the corruption and inconsistent governmental system of the 2006-2007, FDI declined and many industries faced crisis. Reuters reports that political analysts and foreign nations providing aid to the impoverished country of more than 140 million say it needs to end political turmoil and violence to attract much needed investment. Based on the condition, the political analysis had been performed:

Government stability- 8 points: This is an assessment both of the government's ability to carry out its declared program. It mainly focuses on government's unity, popularity and legislation condition. On 6th January, 2010, the Daily Prothom Alo disclosed public opinion thorough survey, according to which 46% of total respondents supported government for its success in agriculture and educational policies; 9% of the respondents are completely satisfied with the government activities and 44% are moderately satisfied. Besides the government is criticized for murder without pursuing legislative procedure and polarizing politically. The risk rating assigned is the sum of three subcomponents, each with a maximum score of 4 points and a minimum score of 0 points. Considering the political condition of Bangladesh discussed above and recent responses of public, the government stability of the country is moderately risky and the subcomponents' points for the country were assumed to be: Government unity -3, legislative strength -2 and popular support-3.

Socioeconomic conditions-3.5 points: This is an assessment of the socioeconomic pressures at work in society that could constrain government action or social dissatisfaction. The persistent failure to initiate a process of sustained development and address the country's major economic and social problems has progressively fostered a

social backlash against the economic model and exacerbated political instability. According to the Country Reports on Human Rights Practices by the Bureau of Democracy, Human Rights, and Labor, Bangladesh government's human rights record remained poor, and the government continued to commit numerous serious abuses. Its socioeconomic condition is very highly risky. The consumer price index (CPI) increased to nearly 8.54% on a point to point basis in October, 2009 from 4.60% in September, 2009, for which consumer faced price hike in all necessities, especially in rice and started to lose their confidence. In 2009, the bureau of statistics calculates the per capita income in Bangladesh at US$690.The subcomponents for Bangladesh's socioeconomic condition's points were assumed to be: Unemployment-1**,** consumer confidence-1.5**,** poverty-1.

Investment profile-5 points: Investment profile focuses on the factors affecting the risk to investment that are not covered by other political, economic and financial risk components. The abundance of administrative procedures represents an obstacle to business operations in Bangladesh. Also the investment climate has deteriorated significantly since 2002, when the oil and gas companies became focus of a largely unfavorable public attention. But the condition slightly improved in the 2006, then again declined at the end of 2009 due to global financial crisis. Banks reserve has become more than $100 millions; but there was no significant investment, which increased inflation. Considering the problem of excess liquidity of banks, recently Bangladesh bank has adopted SME policy to stimulate investment in this sector. The investment profile of Bangladesh is still risky considering the inflation will result in payment delay and loses of investment. Under this category, the subcomponents' points were: Contract viability/expropriation-1.5**,** Profits repatriation-2**,** Payments delays-1.5.

Internal conflict-5 points: Political violence in the country and its actual or potential impact on governance are incorporated under internal conflict category. The highest rating is given to those countries where there is in armed opposition to the government and the government doesn't indulge in arbitrary violence, direct or indirect, against its own people. The lowest rating is given to a country embroiled in an on-going civil war. Violence often resulting in deaths was a pervasive element in the country's politics. Supporters of different political parties, and often supporters of different factions within one party, frequently clashed with each other and with police during rallies and demonstrations. According to human rights organizations, 310 persons were killed and 8,997 injured in politically motivated violence during the year 2006. The government is being criticized for the violence of its political supporters, especially violence in the educational institutions has increased and government still has failed to show significant success in controlling its political violence. Due to the political valance and civil disorder, internal conflict of Bangladesh is very highly risky. The subcomponents' points were: Civil war-3**,** terrorism/political violence-1**,** civil disorder-1.

External conflict-7 points: The external conflict measure in an assessment both of the risk to the incumbent government from foreign action, ranging from non-violent external pressure (diplomatic pressures, withholding of aid, trade restrictions, territorial disputes, sanctions, etc) to violent external pressure (cross-border conflicts to all- out war). Bangladesh being a small poor country is dependent on the powerful rich countries for their financial assistance. Besides, the foreign countries, like: USA, UK, India, etc and

different types of international unions, like: European Union (EU), SARRC, International Monetary Fund (IMF), World Bank, Worth Trade Organization (WTO), etc can create pressure on the Bangladeshi government in developing pressure. Besides, cross-border conflict with India is driving the country to the risky condition. All of these forces have made the country's external conflicts very risky. The subcomponents' points for Bangladesh were: War-3.5**,** cross border conflict-1.5**,** foreign pressure-2.

Corruption-2 points: This is an assessment of corruption within the political system. Such corruption is a threat to foreign investment for several reasons: it distorts the economic and financial environment, reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability, and last but not least, introduces an inherent instability into the political process. The most common form of corruption met directly by business in Bangladesh is financial corruption in the form of demands for special payments and bribes connected with import and export licenses, exchange controls, tax assessments, police protection or loans. Transparency International Bangladesh (TIB) indicated, in a report published in September, 2008 that systemic corruption posed a serious challenge to efforts to promote good governance. A TIB sample survey showed that most incidents of corruption involved the police, while the monetary value of corruption was the biggest in the Ministry of Communication. The recent survey of the Prothom Alo indicates that 40% of the total respondents believe that ACC has become weaker in terms of its operation due to political pressure. Under this situation, the score for Bangladesh for this category was assumed to be 2, indicating a very high risk for the country.

Military in politics-3 Points: In some cases, the threat of military take-over can force an elected government to change policy or cause its replacement by another government more amenable to the military's wishes. In the short term a military regime may provide a new stability and thus reduce business risks. However in the longer term the risk will almost certainly rise, partly because the system of governance will become corrupt and partly because the continuation of such a government is likely to create an armed opposition. In the year 2006, Dr. Fakhruddin Ahmed formed caretaker government being backed by military. In elections last December, 2008 people voted overwhelmingly for expressing their hostility to the previous military-backed regime and its repressive methods. The government, which has 260 seats in the 300-seat parliament, clearly has been shocked by the outbreak of the mutiny just two months later due to the revolt by the boarder guards. Considering all the facts, the score for military in politics was assumed to be 3 for Bangladesh.

Religious tensions- 3 Points: Religious tensions stem from the domination of society and governance by a number of religious groups that seek to impose religious law and to exclude other religious from the political and social process of Bangladesh; the desire of a single religious group to dominate governance; the suppression off religious freedom; the desire of a religious group to express its own identity, separate from the country as a whole. Considering the existence of religious groups, its score was assumed to be 3.

Law and order-2.5 points: Law (1.5) and order (1) are assessed separately, with each sub-components comprising zero to three points. The law sub-components are an assessment of the strength and impartiality of the legal system, while the order sub-components are an assessment of popular observances of the law. According to the TIB

report, the country's labor law provides for punishment for intercourse "against the order of nature with any man, woman or animal." Laws specifically prohibiting certain forms of discrimination against women provide for special procedures for persons accused of violence against women and children, call for harsher penalties, provide compensation to victims, and require action against investigating officers for negligence or willful failure of duty; however, enforcement of these laws was weak. Thus a low rating of 2.5 was assigned to the country for its judicial system as it suffers from a very high crime rate because the law is routinely ignored without effective sanction.

Ethnic tensions-5 Points: This component is an assessment of the degree of tension within a country attributable to racial, nationality, or language divisions. Lower ratings are given to countries where racial and nationality tensions are high because opposing groups are intolerant and unwilling to compromise. Higher ratings are given to countries where tensions are minimal, even though such differences may still exist. For Bangladesh, it was assumed to be 5 considering low risk conditions.

Democratic accountability-4 points: This is a measure of how responsive government is to its people, on the basis that the less responsive it is, the more likely it is that the government will fall, peacefully in a democratic society, but possibly violently in a non-democratic one. Although Bangladesh recently celebrated more than two decades of constitutional democracy, its political system today appears to be in a state of terminal disintegration. After two years' emergency and ruling of caretaker government's ruling, democracy has come back to the country. In every case, after elections, the loosing parties refuse the results of the election and during the governing period of the winning party, try to create blockage on their works. Thus a combination of corruption, mismanagement, and the threat of impending political chaos has made things even worse, though the media are now playing a vital role to ensure the accountability of the government of Bangladesh. 4 points were assigned under this category for Bangladesh.

Bureaucracy quality- 2.5 Points: The institutional strength and quality of the bureaucracy is another shock absorber that tends to minimize revisions of policy when government changes. Therefore, high points are given to countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services. Countries that lack the cushioning effect of a strong bureaucracy receive low points because a change in government tends to be traumatic in terms of policy formulation and day to day administration. It assumed to be 2.5 for Bangladesh.

Assessing the political risk: In general terms if the points awarded are less than 50% of the total, that component can be considered as a very high risk, in the 50-60% range as high risk, in the 60-70% range as a moderate risk, in the 70 –80% range as a low risk and in the 80-100% range as a very low risk. Overall a political risk rating of 0.0% to 49% indicates a very high risk; 50% to 59% high risk; 60% to 69% moderate risk; 70% to 79% low risk; and 80% or more very low risk. From the discussion and analysis in the appendix, the political condition of Bangladesh can be identified as high risky and its risk score was 50.5%.

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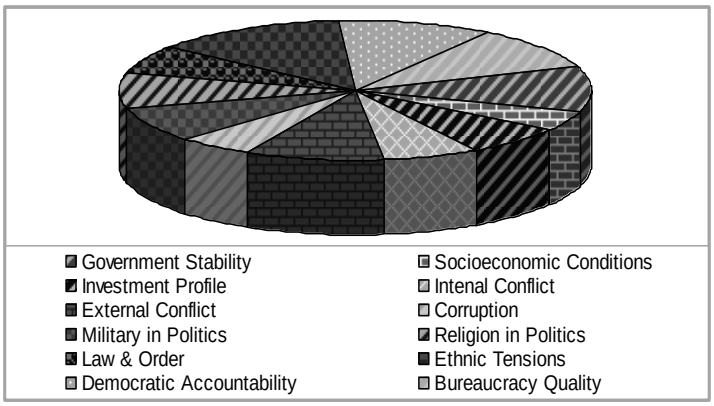

Fig 2: Political Risk Condition of Bangladesh

Economic Risk Rating: The overall aim of the economic risk rating is to provide a means of assessing a country's current economic strengths and weakness. In general terms, where its strengths outweigh its weakness it will present a low economic risk and where its weakness outweighs its strengths, it will present a high economic risk. These strengths and weakness are assessed by assigning risk points to a pre set group of factors, termed economic risk components. As the part of the potentiality of foreign investment in Bangladesh, economic risk of the country was evaluated. The risks components, weights and sequence are used to produce the economic risk rating are represented here:

Sequence	Components	Points
A	GDP per head	5
B	Real GDP growth	10
C	Annual inflation rate	10
D	Budget balance as the % of GDP	10
E	Current account as a percentage of GDP	15
Total		50

Table: 2 Economic Risk Rating

Out of these factors, appendix-3 shows the points assigned to the category. From the analysis, the assumed scores were:

- GDP per Head - measures the total output per person of goods and services for final use occurring within the domestic territory of a given country. Output is measured regardless of the allocation to domestic and foreign claims. For Bangladesh, annual per capital GDP is US$ 621, GDP at current price is Tk. 6149.43 billion (US$ 89.04 billion) which is still very low. Considering the fact, Score assigned for the category was 1.5 indicating moderate risk situations.
- Real GDP growth rate-measures the real GDP growth rate based on previous year. GDP growth rate in 2008-09 is 5.88% and 2009-10 is 6%. Score-3 was assigned for the category to reflect the moderate risk. Because the GDP growth rate of the country is still low, but shows increasing trend.

- Annual inflation rate of Bangladesh is increasing due to government's inability to control price of necessities. Though government has designed monetary policy targeting inflation reduction, it will take time to implement the policy and generate its output. Considering the fact, for inflation 2 point was assigned to represent very risky condition.
- Finance minister Abul Maal Abdul Muhith rolled out a Tk 1.138 trillion (Tk 1,13,819 crore) national budget for the fiscal 2009-10, with a resolve to mitigate effectively the global recession impacts, maintain macroeconomic stability and develop infrastructures relying more on the public private partnership concept. The finance minister projected the gross domestic product (GDP) to grow at 5.5% in the next fiscal, lower from the current fiscal year's revised estimate of 5.8%. Score of budget balance as % of GDP is 2.5, which represents the high risk condition for the economy of the country.
- Current account balance as % of GDP- the sum of net exports of goods, services, net income and net current transfers. Score for the category was 4.5 indicating risky condition as the country is still import oriented.

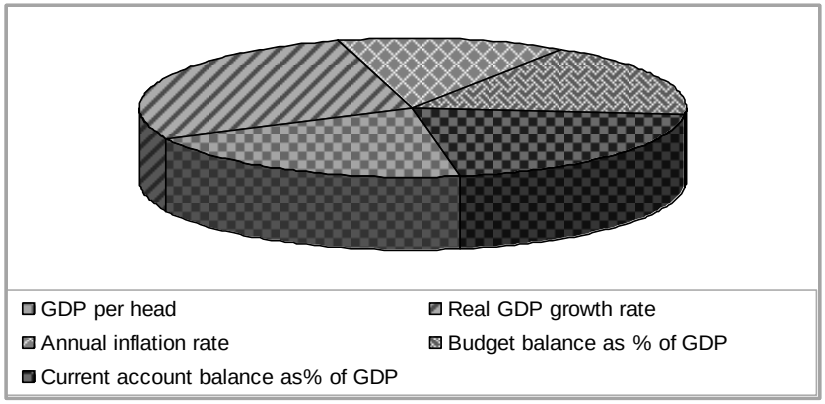

Fig 3: Economic Risk Condition of Bangladesh

In general terms if the points awarded are less than 25% of the total, that component can be considered as a very high risk, in the 25-30%range as high risk, in the 30-35% range as a moderate risk, in the 35-40% range as a low risk and in the 40-100% range as a very low risk. Overall an economic risk rating of 0.0% to 49% indicates a very high risk; 50% to 59% high risk; 60% to 69% moderate risks; 70% to 79% low risk; and 80% or more very low risk. From the above discussion and analysis in the appendix: 2, the economic condition of Bangladesh can be identified as high risky and its risk score was 27.00%.

Financial Risk Rating: The overall aim of the financial risk rating is to provide a means of assessing a country's ability to pay its debt its way. This requires a system of measuring a country's ability to finance its officials, commercial and trade debt obligations. The following risk components, weights and sequence are used to produce the financial risk rating (appendix: 3) form which it was revealed that the financial condition of Bangladesh can be identified as moderate risk and its risk score was 34%.

Sequence	Components	Points
A	Foreign debt as % of GDP	5
B	Foreign debt service as % of XGS	10
C	Current account as % of XGS	15
D	Net liquidity	5
E	Exchange rate stability	10
Total		50

Table: 3 Financial Risk Rating

In general terms if the points awarded are less than 25% of the total, that component can be considered as a very high risk, in the 25-30%range as high risk, in the 30-35% range as a moderate risk, in the 35-40% range as a low risk and in the 40-100% range as a very low risk. Overall a financial risk rating of 0.0% to 49% indicates a very high risk; 50% to 59% high risk; 60% to 69% moderate risks; 70% to 79% low risk; and 80% or more very low risk. Out of these factors, appendix: 2.16 shows the points warded to the category. From the analysis, of the case, the assumed scores were:

- Foreign debt as percent of GDP closely mirrored the developments in total debt until the mid 1990s. Since then, an increasing share of the total debt has been finance by domestic debt. From a low of about 3% of GDP in the early 1990s, it has increased to 20% of the GDP in 2007-08 indicating risky situation for Bangladesh. For foreign debt as % of GDP-score is assumed to be 2.
- Foreign debt as % of net export- comprises interest payments and principal repayments made on the disbursed long-term public debt and private, non-guaranteed debt, International Monetary Fund (IMF) debt repurchases, IMF charges, and interest payments on short-term debt. Score for this category was assumed to be 2.5.
- According to the New Nation (independent news source), if we compare the economic integration of Bangladesh, India and Pakistan with the rest of the world, we will find that in 2006 trade as percentage of GDP is highest in India (48.78%) followed by Bangladesh (44.22%) and Pakistan (38.61 %). Pakistan receives the highest FDI Inflow as percentage of GDP (3.37%) followed by India (1.19%) and Bangladesh (1.13). Current account as % of net export is in risky condition, so score 3 was assigned.
- Excess liquidity in the banking system gives flexibility to the government for increasing amount of borrowing from the banking system. Excess liquidity of the scheduled banks stood higher at Tk. 27,716.99 crore as of end April, 2009 as against Tk.12,988.58 crore as of end June, 2008, i.e. recorded 113.4 per cent growth. Tk. 7,523 crore (27.1%) of the excess liquidity is composed of the Bangladesh Petroleum Corporation (BPC) bonds, while the rest of the liquidity is possibly due to increase in investment on approved securities by commercial banks, as a result of lack of investment demand. Net liquidity score was assumed to be 1.5 indicating moderate risky condition.

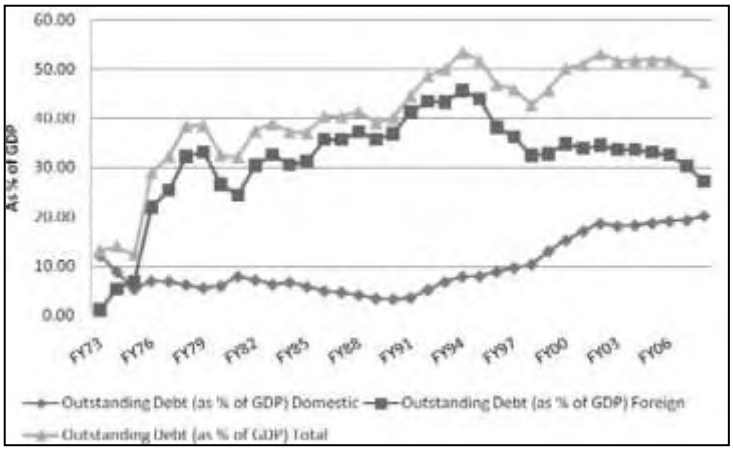

Fig 4: Foreign Debt Condition of Bangladesh

- Before 1980, Taka (Bangladeshi currency) was pegged to the Pound Sterling and in 1980, the fixed exchange rate regime was replaced by a managed system of floating where Taka was pegged to a basket of currencies of the country's major trade partners. But since May 2003, Bangladesh has adopted floating exchange rate regime. It is noted that, after introduction of floating exchange rate regime, the exchange rate did not face any adverse situation indicating the resilience of Bangladesh economy. In fact, the depreciation rate of Taka is almost same over the three exchange rate regimes. Exchange rate condition of Bangladesh is relatively stable and considering it as very low risky, score 8 was assigned.

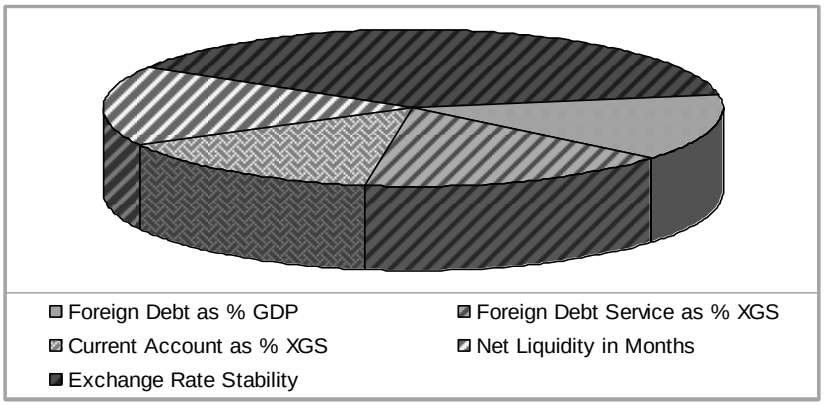

Fig 5: Financial Risk Condition of Bangladesh

Composite risk rating: The composite rate for the country risk (CPFER) = 0.5 (PR+ER+FR)

Where,

PR = Political Risk
ER = Economic Risk
FR = Financial Risk

Composite risk rating = 41.00% (appendix-3).

If composite risk rating of 0.0% to 49% indicates a very high risk; 50% to 59% high risk; 60% to 69% moderate risks; 70% to 79% low risk; and 80% or more very low risk. So Bangladesh was a highly risk country with composite risk rating of 41.50% which is supported by the World Markets Research Center that has recently revised the country's risk as very high, which may deprive the country from inbound flow of FDI. In spite of all of this, the recent trend of FDIO in Bangladesh signals that a handsome amount of FDI may continue to its flow in the country in the near future, which is supported by Dr. S.A. Samad, Executive Chairman of Board of Investment (BOI) as he said, the present Awami League government has earmarked foreign investment as a priority for development of the country and the Prime minister in all her overseas visits placed FDI as one of her top most agenda.

1.7 Empirical Analysis on PPP Theory

Conceptual Test: While conceptual testing, the inflation rate differentials were located on the x-axis and the exchange rate changes were located on the y-axis. The parity line shows all points for which change in exchange rate and differences between the inflation rates become equal and consequently shows all equilibrium points. If the PPP theory holds, all the observations will set on the 45 degree diagonal line.

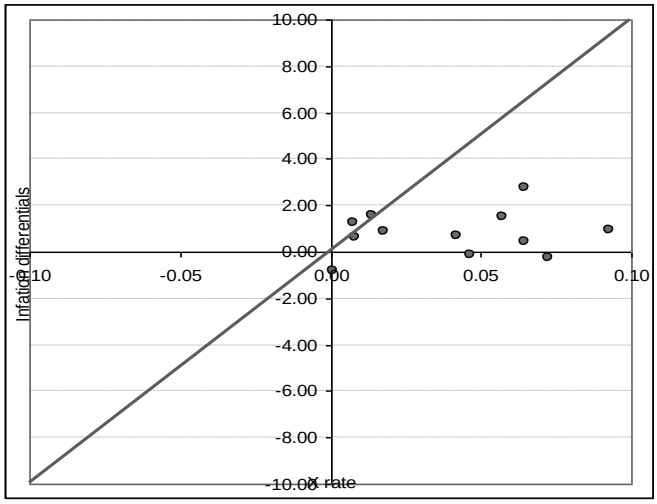

Fig-6: Technical test

The figure: 6 represents that the theory does not reflect in actual situation only one of the 12 observations for the time period from 1995-96 to 2007-08 fall on the 45 degree

diagonal line. Higher deviation was found in the year 1997 which was 7.05% showed in the appendix.

Technical Test: Regression analysis is a statistical tool with the help of which one can estimate the unknown value of one variable from known value of another variable. It measures the relationship in absolute term. As the part of technical analysis on the PPP theory, regression analysis was performed and the values of the coefficient and constants were calculated. Regression was estimated using the following formula:

$$\mathbf{e = a + b\{(I_{BD} + 1)/(I_{USA} + 1)\} + u}$$

(The calculation of regression equation was shown in the appendix)

Where,

e	was change in exchange rate
a	was intercept
b	was the slope
μ	was error/residual

The estimated regression model for the PPP was shown below:

$$\mathbf{Y(e) = 0.377 + 0.1136\{(I_{BD} + 1)/(I_{USA} + 1)\} + 0.01}$$

Linear equation for exchange rate change shows that there is a positive relationship between inflation rate differential between Bangladesh and USA and exchange rate between the countries. Here, if the inflation differentials increase by 1%, then exchange rate increases for 0.1136%. From the ANOVA table, it can be concluded that the results were not statistically significant at the 10% level, as the significance level indicated in the ANOVA table was 0.715 or 71.5%, which was higher than 10% level. Besides, here the value of intercept is 0.377%, indicating if there is no differential between the exchange rates of two countries, the rate of change in exchange rate would be 0.377%. The error of the analysis was 0.01%. The result indicates that PPP theory does not hold in the case of Bangladesh and USA. As indicated by the t-statistics (from the coefficients table shown in appendix) it can be concluded that b (inflation rate differential coefficient) was not statistically significant because it was significant at 0.3758 or 37.58% level which was higher than 0.10 or 10% level. The average exchange rate change between Bangladesh and USA for the period from 1996 to 2008 was 0.046% and the average inflation differentials between the countries for the same time period was 0.80%. The standard deviation of the exchange rate change for the period was 0.03% and that of inflation differential 0.95%. The coefficient of variation of exchange rate differential was 0.21 and that of inflation differential was 0.34. This is indicative of the phenomenon that the variation of the change in exchange rate was lower than the inflation rate differential from one year to another.

The coefficient of correlation between the inflation rate differential between the two countries overall export earnings and exchange rate change was: **r = 0.1180.** The coefficient of correlation indicates that there was positive and low relationship between the exchange rate changes and inflation rate differentials between the countries. The strength of the relationship among the variables - the coefficient of determination (r^2)

was: $\mathbf{r^2 = 0.139.}$ The value indicates low relationship. More clearly, 13.9% of the variation in exchange rate can be explained by the inflation rate differentials.

The entire analysis proved that the exchange rate changes between Bangladesh and USA can not be completely explained by the inflation rate differentials between the two countries. Here, the other fundamental factors, like- interest rate differentials, income differentials, government control, etc may play the key role and contribute to the variation in the exchange rate differentials between the two countries.

International Fisher effect:
Conceptual Test

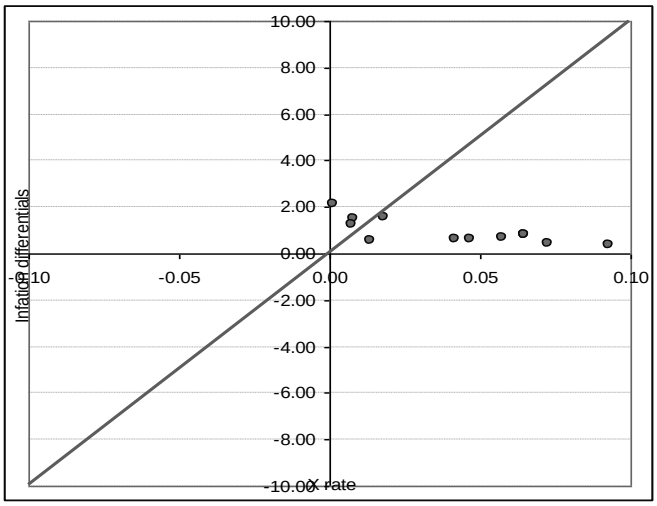

Fig-7: Technical test

While conceptual testing, the horizontal axis showed the differences in the expected interest rates between the home country and the foreign country and the exchange rate changes were located on the vertical axis. The parity line shows the all equilibrium points. The figure: 7 represents that the theory does not reflect in actual situation as neither of the observations fall on the 45 degree diagonal line. Higher deviation was found in the year 200 which was 9.06% showed in the appendix.

Technical Test: As the part of technical analysis on the IFE theory, regression analysis was performed. Based on the data provided in appendix, the values of the coefficient and constants were calculated. Regression was estimated for the time period from 1995-96 to 2007-08 using the following formula:

$$\mathbf{e = a + b\{(i_{BD} + 1)/(i_{USA} + 1)\} + u}$$

(The calculation of regression equation was shown in the appendix)

Where,

e	was change in exchange rate
a_0	was intercept
a_1	was the slope
μ	was error/residual

The estimated regression model for the PPP is shown below:

$$\mathbf{Y(e) = .1135 - 1.204\{(i_{BD} + 1)/(i_{USA} + 1)\} + 0.005}$$

Linear equation for exchange rate change shows that if the interest rate differentials decrease by 1%, then exchange rate increases for 1.204%. The error of the analysis was 0.005%. From the ANOVA table, it can be concluded that the results were statistically significant at the 1% level, as the significance level indicated in the ANOVA table was 0.008 or 0.8%, which was lower than 1% level.

As indicated by the t-statistics (from the coefficients table shown in appendix) it was found that b (interest rate differential coefficient) was not statistically significant because it was significant at 3.27 level which was higher than 0.10 or 10% level. The value of intercept was 0.1135%, indicating if there is no differential between the exchange rates of two countries, the rate of change in exchange rate would be 0.1137%. The result indicates that IFE theory does not completely hold in the case of Bangladesh and USA, though as compared to the PPP theory, IFE theory is more valid from the perspective of Bangladesh.

The average exchange rate change between Bangladesh and USA for the period from 1996 to 2008 was 0.041% and the average inflation differentials between the countries for the same time period was 0.80%. The standard deviation of the exchange rate change for the period was 0.018% and that of inflation differential 0.030%. The coefficient of variation of exchange rate differential was 0.299 and that of inflation differential was 0.74. This is indicative of the phenomenon that the variation of the change in exchange rate was lower than the inflation rate differential from one year to another. The coefficient of correlation between the interest rate differential between the two countries overall export earnings and exchange rate change was: **r = -0.7175.** The coefficient of correlation indicates that there was negative and moderately high relationship between the exchange rate changes and interest rate differentials between the countries. The strength of the relationship among the variables - the coefficient of determination (r2) was: $\mathbf{r^2 = 0.51.}$ The value indicates low relationship. More clearly, 51% of the variation in exchange rate can be explained by the interest rate differentials.

Other factors as the alternative to the theories:

PPP and IFE theories can violate due to several factors in case of FDI in Bangladesh. The factors are:

- Investors are more familiar with domestic markets than foreign markets. Different languages, time zones, sources of information, etc might limit capital flow across borders.
- Though Bangladesh Government has developed a more flexible framework for ensuring FDI in Bangladesh, differences in legal restrictions and uncertainty regarding real rate of return may hinder inventors from making investment in the country.
- Access to the information might be costly and transactions often involve costs in the form of brokerage and management fees. In Bangladesh, where market is not efficient, transaction cost is high.

- Comparative tax rate analysis also guides the investors in making investment. High tax rate discourages the investors in making investment.

Findings of the study:

- Political condition of Bangladesh is not still supportive for foreign direct investment of the country. Foreign investors are fully convinced regarding their return on investment due to weak socio-economic framework of the country. Corruption and religious consideration also encourage them to divert their investment to other neighboring countries.
- Economic condition of the country is also not in safe condition. Low GDP and GDP growth rate, inflationary pressure, etc are the major factors for lowering the FDI flow in the country.
- Bangladesh is dependent on the foreign donation. Every year, it faces huge budget deficit and the deficit is financed by the foreign debt. Its dependence on the foreign debt is increasing the financial risk of the country.
- The country risk analysis revealed that Bangladesh is in highly risky position from its political, economic and financial perspectives according to the International Country Risk Grading (ICRG). As a result, the potentiality of foreign investment in the country is very low.
- Trend of FDI in Bangladesh showed that FDI flow in the country was being increased, but it was increasing at a decreasing rate.
- The empirical analysis of the PPP theory suggested that for explaining FDI in Bangladesh, the theory was not applicable considering the time period from 1995-96 to 2007-08. The regression analysis for the theory suggested that the PPP model for FDI of the country was not statistically significant. Besides, the explanatory power of the inflation rate differentials between the countries for the exchange rate differences was only 13.9%.
- Similar to the PPP theory, IFE theory's empirical analysis also revealed the theory was not applicable for the time period from 1995-96 to 2007-08. But the model was statistically significant at the 1% level of significance. But surprisingly, the correlation between the exchange rate differences and inflationary differentials between the courtiers was negative. the statistically model suggested that if the interest rate differentials decrease by 1%, then exchange rate increases for 1.204%, though explanatory power of the interest arte differentials was higher (51%) than the inflationary differentials.

1.8 Conclusions and recommendations:

Despite the political, economical and financial problems, Bangladesh has a number of positive attributes that can successfully attract the attention of foreign investors. The increasing availability of skilled and unskilled labor at relatively low wages and the relatively stable macroeconomic environment after the selection of democratic government may represent the country as an attractive destination for foreign investors. They are generally aware that the wage rates in Bangladesh are among the lowest in Asian countries. Moreover, the rate of inflation is usually contained within tolerable

limits and Bangladesh bank's monetary policy announced in January 2010 targeted to keep the inflation rate at the stable. Moreover, the exchange rate is reasonably stable and government is providing custom regulation that is investment friendly without discrimination between foreign and domestic investors, and attractive incentive packages are available for the foreign investors. In fact, all of these factors play the significant role in explaining FDI in Bangladesh, for which from the perspective of FDI, PPP and IFE theories did not work. But keeping in mind country risk condition of Bangladesh, it needs to undertake effective promotion measures to convince the potential foreign investors that their involvement in business activities in the country is valued, they would be facing friendly regulations, and they can enjoy investment incentives that are competitive with those offered by other countries in the region and the developing world. The country also needs to move forward through removing inefficient bureaucratic procedures. Despite recent improvements, the efficiency of port services can be further improved through appropriate measures. Strengthening economic and commercial diplomacy is a key factor in attracting FDI in the present world characterized by rapid globalization and increasing competition. In this respect, improved bilateral relations with potential investor countries can act as a catalyst to increasing FDI inflows to Bangladesh.

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Appendix:

1. Summary Output of Trend of FDI in Bangladesh

Regression Statistics

R	0.622
R Square	0.386
Adjusted R Square	0.299
Standard Error	209.57
Observations	9

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	193613	193613	4.408	0.074
Residual	7	30746203	43923.185		
Total	8	501075.6			

	Coefficients	*Standard Error*	*t Stat*	*Sig*
Intercept	1282.805	152.255	8.425	.000
X Variable	56.806	27.056	2.10	0.07

2. Political Risk Rating

Sequence	Component	Point (maximum)	Proportion to index	Proportion to total	Riskiness
A	Government Stability	8	8.00%	66.67%	Moderate Risk
B	Socioeconomic Conditions	3.5	3.50%	29.17%	Very High Risk
C	Investment Profile	5	5.00%	41.67%	Moderate Risk
D	Internal Conflict	5	5.00%	41.67%	Very High Risk
E	External Conflict	7	7.00%	58.33%	High Risk
F	Corruption	2	2.00%	33.33%	Very High Risk
G	Military in Politics	3	3.00%	50.00%	High Risk
H	Religion in Politics	3	3.00%	50.00%	High Risk
I	Law & Order	2.5	2.50%	41.67%	High Risk
J	Ethnic Tensions	5	5.00%	83.33%	Very Low Risk
K	Democratic Accountability	4	4.00%	66.67%	Low Risk
L	Bureaucracy Quality	2.5	2.50%	62.50%	Moderate Risk
Total		**50.5**	**50.50%**	**50.50%**	**High Risk**

3. Economic Risk Rating

Sequence	Comments	Points	Proportion to index	Proportion to Total	Riskiness
A	GDP per head	1.5	1.50%	30.00%	Moderate Risk
B	Real GDP growth rate	3	3.00%	30.00%	Moderate Risk
C	Annual inflation rate	2	2.00%	20.00%	Very High Risk
D	Budget balance as % of GDP	2.5	2.50%	25.00%	Moderate Risk
E	Current account balance as% of GDP	4.5	4.50%	30.00%	High Risk
Total points		**13.5**	**13.50%**	**27.00%**	**High Risk**

4. Financial Risk Rating

Sequence	Comments	Points	Proportion to index	Proportion to Total	Riskiness
A	Foreign Debt as % GDP	2	2.00%	20.00%	High Risk
B	Foreign Debt Service as % XGS	2.5	2.50%	25.00%	Moderate Risk
C	Current Account as % XGS	5	5.00%	33.33%	Moderate Risk
D	Net Liquidity in Months	1.5	1.50%	30.00%	Moderate Risk
E	Exchange Rate Stability	8	8.00%	80.00%	Very Low Risk
Total points		**19**	**19.00%**	**38.00%**	**Moderate Risk**

5. Country Risk Rating

CPFER = 0.5(PR+ER+FR)	
Category of Risk	**Rating**
Political Risk	50.50
Economic Risk	13.50
Financial Risk	19.00
Total	83.00
CPFER	**41.50%**

6. Regression Analysis on PPP

Regression Statistics	
Multiple R	0.118020
R Square	0.01393
Adjusted R Square	-0.08468
Standard Error	0.03163
Observations	12

ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.0001413	0.0001413	0.141256	0.71489
Residual	10	0.010007	0.001001		
Total	11	0.010149			

	Coefficients	**Standard Error**	**t Stat**	**P-value**
Intercept	0.037736	0.01200	3.14362	0.01044
X Variable 1	0.11355	0.30213	0.37584	0.71489

7. Regression Analysis on IFE

Regression Statistics	
Multiple R	0.717506029
R Square	0.514814902
Adjusted R Square	0.466296392
Standard Error	0.022189587
Observations	12

ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.0052	0.00522	10.61069	0.0086
Residual	10	0.00492	0.00049		
Total	11	0.0101			

	Coefficients	**Standard Error**	**t Stat**	**P-value**
Intercept	0.11346	0.0232	4.880	0.000641
X Variable 1	-1.204367	0.36973	-3.2574	0.00861

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Corporate Governance Disclosure and Contribution of Corporate Attributes: An Empirical Study on Listed General Insurance Companies of Bangladesh

Sheikh Tanzila Deepty[1]
Saud Ahmed[2]

Abstract: The study has examined the level of corporate governance (CG) disclosures of the general insurance companies (GICs) of Bangladesh (BD). Additionally it has developed a multi-index model to identify impact of corporate attributes on corporate governance disclosures. For this purpose, the Corporate Governance Disclosure Index (CGDI) has been developed for sample companies. Average CGDI of sample companies is 59.14. Highest score is 82.22, achieved by a single company. At the low end, three companies have CGDI 48.89. The selected companies are more eager to disclose financial information rather than non-financial information. The empirical model reveals that board size, firm size, sponsor's ownership, number of board meeting and debt collectively have statistically significant relationship with CGDI. 36.5 % variation of CGDI is explained by these corporate attributes. A moderate degree of positive relationship exists among the variables. The most influential variable is firm size and debt.

Key Words: Corporate Governance, Corporate Governance Disclosure Index, Corporate Attributes.

1.1 Introduction:

Corporate governance is a burning issue now-a-days. Since the early 1990s, CG has been receiving increasing attention from regulatory bodies and practitioners worldwide. CG in practice and philosophy have up till now remained relatively under-developed in Bangladesh. In Bangladesh, it was not statutorily required to report and disclose all the essential information on CG before the proliferation of SEC's notification in February, 2006. But after that it is now mandatory to report the status of CG in line with set conditions imposed by SEC for the listed companies in their annual report. In this regard, the main motivation of the current study is to explore whether listed general insurance companies (GICs) in Bangladesh are paying attention to all these arrangements and to what extent such attention is being resulted in annual report disclosure. Additionally an empirical model is developed to identify contribution of corporate attributes on corporate governance disclosure. General insurance industry has been focused as it is one of the growing financial sectors. The quantitative growth of this industry of Bangladesh is quite impressive but this does not necessarily indicate qualitative development. To ensure proper operation of insurance business, it is required to identify whether effective CG is practiced in this sector. Though a number of studies had been conducted on this issue focusing on both financial and non-financial sectors, individually listed general insurance companies are not highlighted properly.

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This paper is organized into eight sections. The following section offers a discussion on the objective of the study. Section three focuses on methodology. The fourth section deals with the literature review. Section five presents the Conceptual Framework of CG and its practice in Bangladesh. The sixth section analyzes GIC's corporate governance disclosure. The seventh chapter discusses the findings and policy implications and the final section concludes the paper with the scope of future research.

1.2 Objective:

The insurance market in Bangladesh now consists of 2 state-owned corporations, 43 private sector general insurance and 17 life insurance companies, a total of 62 insurance companies. Despite political uncertainty, natural calamities like flood, cyclone, SIDR, economic slowdown, lack of major investment and infrastructure projects; insurance premium growth is very high in Bangladesh. This growth doesn't ensure qualitative development. To ensure proper operation of insurance business, now it's time to focus on the corporate governance practice of this industry. The main objective of this study is to examine the level of corporate governance disclosures of the general insurance companies of Bangladesh. The secondary objective is to develop a multi-index model to identify impact of corporate attributes on corporate governance disclosures.

1.3 Methodology:

As the main objective of this study is to examine the level of corporate governance disclosures of the sample companies, a disclosure index has been developed for the companies under study. The Corporate Governance Disclosure Index (CGDI) has been developed mainly on the basis of the papers prepared by the UN secretariat for the nineteenth session of ISAR (International Standards of Accounting and Reporting), entitled "Transparency and disclosure requirements for corporate governance" and the twenty second session of ISAR, entitled "Guidance on Good Practices in Corporate Governance Disclosure". Among 43 listed GICs, 31 private GICs are chosen for the purpose of this study. These companies are chosen on the basis of judgmental random sampling.

Issues in corporate governance disclosure are classified into 5 broad categories: Financial disclosures, non-financial disclosures, annual general meetings, timing and means of disclosure, and best practices for compliance with corporate disclosure. A total of 45 issues have been considered under these categories (See Table A-1 in Appendix). A dichotomous procedure has been followed to score each of the disclosure issue. Each company is awarded a score of '1' if the company appears to have disclosed the concerned issue and '0' otherwise. The score of each company is totaled to find out the net score of the company. A corporate governance disclosure index (CGDI) is then computed by using the following formula:

$$\text{CGDI} = \frac{\text{Total Score of the Individual Company}}{\text{Maximum Possible Score Obtainable by Company}} \times 100$$

To develop multi –index model of corporate attributes influencing CGDI of GICs, Multiple Regression Analysis has been conducted. The primarily selected attributes are: board size, firm size, sponsor's ownership, director's remuneration, debt, age and number

of board meeting. The disclosure practices of selected companies are analyzed as of December 31st, 2009. This study used secondary data available from annual reports of the selected companies. Box-Cox Transformation, Breaush Pegan Test and correlation matrix analysis have been conducted to identify and solve some econometric problem. The equation used to test which corporate attributes are significantly influencing the CGDI of GICs is:

$$CGDI = \acute{a} + \hat{a}_1 BS + \hat{a}_2 FS + \hat{a}_3 SO + \hat{a}_4 DBT + \hat{a}_5 AG + \hat{a}_6 BM \ldots\ldots\ldots (1)$$

Where, CGDI = Corporate Governance Disclosure Index

α = Value of constant

BS = Board size (Number of directors in the board)

FS = Firm size (Total asset is used as proxy)

SO = Sponsor's ownership

DBT = Debt

AG = Age (Years of operation in the market as a listed public limited company)

BM = Number of board meeting

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 are the regression coefficients.

1.4 Literature Review

Corporate governance is simply the rule of the game for a company in its relations with its shareholders, its lenders and other stakeholders in the business community and the society at large. Lenders and investors need to be assured that the basic principles of corporate governance are in place and will be followed, that a company's dealings with shareholders are fair and transparent, that the board of directors is held accountable and that the company deals responsibly with stakeholders. As such, corporate governance is key to a company's integrity, efficiency, log term growth and profitability. The importance of corporate governance lies in its contribution both to business prosperity and to accountability (Uddin, 2010). Batra et al (2007) argue that in order to achieve high standards of corporate governance, internal pressures such as peers and market competition should be more effective than enforcement by regulating agencies. It is also imperative that the regulators should expand their role and take effective measures to propagate the concepts of best practices in ushering an era of good corporate governance.

A good number of theoretical and empirical researches on corporate governance disclosure have been undertaken throughout the globe due to the continuing emphasis on this. In conducting the research on corporate governance, annual reports have been used as a main source of information. Research in the field of corporate governance disclosure during the recent years has mainly focused on the disclosure practices found in the annual reports by determining the extent of corporate governance disclosures in the annual reports of the companies of a country (Bushman and Smith, 2001). In the Twenty First Session of International Standards of Accounting and Reporting (Geneva 27-29 October, 2004) UNCTAD Secretariat presented a report that found increasing convergence among national and international corporate governance codes and guidelines but it also reported significant deviation in terms of disclosure practices and content of disclosure. The study was based on a survey on 30 companies of different geographical regions. Another study constructed a "Governance Index" by using 24 governance rules to proxy the level of

shareholders rights. Sample of the study was about 1500 large firms of USA. It evidenced that firms with stronger shareholder rights had higher firm value (Gompers et al, 2003). In Bangladesh, Bhuiya and Biswas (2007) conducted a highly structured study on corporate governance disclosure. A random sample of 155 listed Public Limited Companies (PLCs) has been taken for this purpose. To facilitate the analysis, a Corporate Governance Disclosure Index (CGDI) has been computed and a number of hypotheses have been tested. The mean and standard deviation of CGDI have been found to be 56.04 and 17.20 respectively. In this study, significant difference has been found to exist among the CGDI of various sectors. Financial sector has been found to make more intensive corporate governance disclosure than the non-financial sector. In general, companies have been found to be more active in making financial disclosures rather than non-financial disclosures. Another study investigated 142 sample companies out of the listed companies in Bangladesh to examine their compliance with SEC's notification on corporate governance. Out of 142 sample companies, 95 companies complied with the notification which indicating only 67 per cent and rest 47 sample units or 33 per cent non-complied with notification. The findings indicate that the highest compliance industries are engineering and tannery & ceramic (88 per cent) followed by textile (86 per cent), fuel & power , jute, service and miscellaneous (82 per cent), IT sector (80 per cent) and so on. Compliance of banking (19 per cent) and paper and printing industry (25 per cent) are the lowest among all the sectors (Uddin, 2010). A study by Haque at el (2007) focused on the state of Corporate Governance (CG) in three sectors of the economy: the Non-financial Institutions (public-listed company), the financial enterprises, and the State Owned Enterprises (SOEs). To understand the state of CG, three broad aspects of governance and management issues were studied. These are: a) shareholders' rights, b) public disclosure of information, c) effectiveness of the Board. this study found that financial and non-financial public limited companies are more open to their shareholders compared to SOEs. With regards to public disclosure of information and transparency, companies use "box checking" method rather than understanding the spirit of the disclosure. On the issue of the active participations of the independent directors, SOEs had a better rating than others. In public limited companies study found that in 40% of the cases independent directors rarely disapproved the agenda placed in the board. In the best practice guidelines of CG three major committees are recommended, study found other than SOE, financial and non-financial institutions are not complying with the best practices.

Sharma and Singh (2009) prepared a voluntary corporate governance disclosure. A total number of 40 items has been selected from the corporate governance section of the annual report for the study. A sample of 50 companies has been taken from four industries, viz., software, textiles, sugar and paper. Appropriate statistical tools and techniques have been applied for the analysis. It has been observed that the companies are following less than 50% of the items of disclosure index. Moreover, there is no significant difference among the disclosure scores of these four industries.

Similarly, a number of attempts have been made by various researchers throughout the world regarding the determinants of corporate governance. Haniffa and Cooke (2000) investigate whether corporate governance and personal attributes in addition to company-specific characteristics are possible determinants of voluntary disclosure in Malaysia. Results indicate potential significance of two corporate governance variables (viz. chair

who is a non-executive director and ratio of family members on boards). One personal variable, proportion of bumiputra directors on the board, was found to be significant. Another study provides a longitudinal examination of voluntary disclosure practices in the annual reports of listed companies in Kenya from 1992 to 2001. The study investigates the extent to which corporate governance attributes, ownership structure and company characteristics influence voluntary disclosure practices. The results suggest that the extent of voluntary disclosure is influenced by a firm's corporate governance attributes, ownership structure and company characteristics. The presence of an audit committee is a significant factor associated with the level of voluntary disclosure, and the proportion of non-executive directors on the board is found to be significantly negatively associated with the extent of voluntary disclosure. The study also finds that the levels of institutional and foreign ownership have a significantly positive impact on voluntary disclosure. Large companies and companies with high debt voluntarily disclose more information. In contrast, board leadership structure, liquidity, profitability and type of external audit firm do not have a significant influence on the level of voluntary disclosure by companies in Kenya (Dulacha et al, 2006).

From the context of Bangladesh, the study of Bhuiya and Biswas (2007) shows that corporate governance disclosure index is significantly influenced (at 5% level of significance) by local ownership, the SEC notification, and the size of the company. Belonging to financial or non-financial institution, age, multinational company, and size of the board of directors are not found to have any significant impact on corporate governance disclosure.

Another study investigates some corporate attributes that influence the corporate governance disclosure in Bangladesh. An OLS regression model has been used to analyze the data of 100 sample companies listed either with Dhaka Stock Exchange or Chittagong Stock Exchange in 2004. The study find that some corporate attributes such as multinational affiliation, linkage of auditor with big four audit firms, concentrated ownership by sponsor and banking companies influence significantly on corporate governance disclosures (Khan and Hossain, 2006).

1.5 Corporate Governance: Conceptual Framework & Practice in Bangladesh

Corporate governance is an important effort to ensure accountability and responsibility and is a set of principles, which should be incorporated into every part of the organization. Though it is viewed as a recent issue, there is, in fact, nothing new about the concept. Because it has been in existence as long as the corporation itself-as long as there has been large – scale trade, reflecting the need for responsibility in the handling money and the conduct of commercial activities. In the wake of accounting, leadership, and governance scandals at such large companies as Enron, Tyco, and WorldCom, corporate governance has succeeded to attract a great deal of interest. Numerous works, studies, and researches have been conducted to enact principles, codes, and guidelines for ensuring good corporate governance systems and culture within the organizations (Haque et al, 2007).

There is a global consensus about the objective of ‘good’ corporate governance: maximizing long term shareholder value. Since shareholders are residual claimants, this objective follows from a premise that, in well performing capital and financial markets.

Whatever maximizes shareholder value must necessarily maximize corporate prosperity and best satisfy the claims of creditors, employees, shareholders, and the State. When investments take place in emerging markets, the investors want to be sure that not only are the capital markets or enterprises with which they are investing, run competently but they also have good corporate governance. CG represents the value framework, the ethical framework and the moral framework under which business decisions are taken. Finally corporate governance calls for three factors: transparency in decision-making, accountability which follows from transparency because responsibilities could be fixed easily for actions taken or not taken and the accountability is for the safeguarding the interests of the stakeholders and the investors in the organization.

1.6 Corporate Governance Practice in Bangladesh:

CG practices in Bangladesh are gradually being introduced in most companies and organizations. A considerable percentage of the top management does not fully understand the concept of CG. However, Bangladesh has lagged behind its neighbors and the global economy in CG (Gillibrand, 2004). One reason for this slow progress in adopting CG is that most of the companies in Bangladesh are family oriented. Such concentrated ownership structure affects the effectiveness of corporate governance mechanisms in that weaknesses are difficult to be rectified by laws and regulations. Motivation to disclose information and improve governance practices by companies is also felt negatively. There is neither any value judgment nor any consequences for CG practices. The current system in Bangladesh does not provide sufficient legal, institutional and economic motivation for stakeholders to encourage and enforce CG practices.

To govern the corporate environment in Bangladesh, practiced legal measures are: Securities and Exchange Ordinance 1969, Bangladesh Bank Order 1972, Bank Companies Act 1991, Financial Institutions Act 1993, Securities and Exchange Commission Act 1993, Companies Act 1994 and Bankruptcy Act 1997. However, to institutionalize the practice of CG in Bangladesh, first initiative was undertaken by the Securities and Exchange Commission (SEC). SEC issued a notification on Corporate Governance Guidelines (CG Guidelines) for the publicly listed companies of Bangladesh under the power vested on the Commission by Section 2CC of the Securities and Exchange Ordinance, 1969. The CG Guidelines were issued on a 'comply or explain' basis, providing some 'breathing space' for the companies to implement on the basis of their capabilities. Nevertheless, the overall framework for investor protection and CG has a number of important weaknesses that have hindered the capital market development. Ahmed and Yusuf (2005) identified that poor bankruptcy laws, no push from the international investor community, limited or no disclosure regarding related party transactions, weak regulatory system, general meeting scenario, lack of shareholder active participations are some of the individual constituents of CG practices in Bangladesh.

1.7 Data Analysis:

In Bangladesh, financial sectors (Banks and Insurance companies) are subject to close monitoring and supervision by Bangladesh Bank and the SEC. This is reflected in the outcome of our study.

Table 1: Frequency Distribution of Total Score

Total Score	N	Cumulative N	%	Cumulative %
20 - 25	11	11	35.48%	35.48%
26 - 30	18	29	58.06%	93.55%
30 - 35	1	30	3.23%	96.77%
36 - 40	1	31	3.23%	100.00%
Average = 27				

Table 1 shows that 18 GICs out of 35 (58.06%) have scored in between 26 to 30. Average score is 27 (60%); one company received the highest score of 37 (82.22%). At the low end, three companies received score 22 (48.89%).

Table 2: Frequency Distribution of CGDI

CGDI	N	Cumulative N	%	Cumulative %
45 - 50	3	3	9.68%	9.68%
51 - 55	5	8	16.13%	25.81%
56 - 60	13	21	41.94%	67.74%
61 - 65	5	26	16.13%	83.87%
66 - 70	3	29	9.68%	93.55%
71 - 75	0	29	0.00%	93.55%
76 - 80	1	30	3.23%	96.77%
81 - 85	1	31	3.23%	100.00%
Average = 59.14				

Table 2 shows that 13 sample GICs (41.94%) have CGDI in between 56 to 60. 16.13% companies have CGDI in between 51 to 55. Highest score is 82.22, achieved by a single company. Average CGDI is 59.14.

In general, the highest scores are associated with those disclosure items that address financial results, accounting policies and the existence of various governance structures and mechanisms. At the high end of the range, all selected companies have disclosed financial and operating results, critical accounting policies, dividend, composition and size of board, chairman's statement and division with CEO, change in board structure, compliance with different legal rules, existence of audit committee, director's remuneration, auditor's appointment and rotation, audit fees, shareholder's right and finally compliance with SEC notification (Appendix Table A-1). In the survey, disclosure of voting right and attachment of proxy form is considered as synonymous to shareholder right. 96.77% have disclosed the information regarding notice and agenda of the AGM. Lower scores concerned with various aspects of the board and key executives: organizational code of ethics (3.23%), role and functions of the board (9.68%), employee/industrial relation (6.45%) and internal control system (6.45%). None of the company discloses about risk and estimates in preparing and presenting FSs, segment reporting and remuneration committee.

The selected companies are more eager to disclose financial information rather than non-financial information. All of the GICS disclosed the SEC required checklist. Only 12

companies disclosed both the SEC required checklist as well as separate statement of corporate governance or separate section for corporate governance to make their position clear regarding various aspects of corporate governance. 22 companies (70.97%) have been found to disclose information regarding company objectives. 32.26% companies have disclosed the existence of other committee (except audit and remuneration committee), 25.81% have disclosed composition of the committees and 87.10% have disclosed functions of the committees. Only 4 companies have disclosed specific natural environmental targets (12. 90%). Sound internal control system is a pre-requisite for good corporate governance. Out of 31 companies surveyed, only 2 companies have disclosed information regarding internal control system inside the organization. 26 companies (83.87%) have disclosed information regarding number of board meetings held during the studied financial year. Out of these companies, 12 companies have been found to disclose each and every director's attendance in the board meetings as well. Though internet is now widespread in our country at the current moment, only 21 companies (67.74%) have disclosed information regarding financial position and/or annual report in their website. All selected companies disclosed the complete letter of the "Independent Audit Report" in their annual report.

Contribution of Corporate Attributes to CGDI:

Subsequent focus of this study is to identify impact of corporate attributes on corporate governance disclosures. The linear regression model of this study is:

$$CGDI = á + â_1BS + â_2FS + â_3SO + â_4DBT + â_5AG + â_6BM + å \quad \ldots\ldots\ldots (1)$$

This model has been modified later while necessary.

Table-3 is showing the mean, standard deviation, maximum, minimum and range of variables:

Table 3: Descriptive Statistics

	Range	Minimum	Maximum	Mean	Std. Deviation
CGDI	33.33	48.89	82.22	59.14	7.38
BS	13	9	22	16.71	3.50
SO	.66	.00	.66	.41	.11
FS	3156.68	276.39	3433.07	774.21	720.29
DT	850.57	63.19	913.76	257.68	226
AG	23	1	24	12.00	8.27
BM	11	4	15	7.52	2.80

In descriptive statistics it has been found that the mean of CGDI, board size, sponsor's ownership, firm size, debt, age and number of board meeting are consecutively 59.14, 17, 41%, Tk. 774.21 million, Tk. 257.68 million, 12 years and 8. Firm size, debt and age have higher standard deviations which are also reflecting in their maximum and minimum values. Sponsor's ownership and number of board meeting have reasonable standard deviation.

After conducting the multiple regression, following regression equation has been derived:

CGDI = 57.219 - 0.098BS + 0.005FS - 0.351SO + 0.001DBT - 0.237AG + 0.265BM……(2)

The equation (2) indicates that the constant is 57.219. It indicates that if all the independent variables remain constant, CGDI of GICs will be 57.219. Coefficient of board size is 0.098. It indicates if BS increases by 1 member, CGDI decreases by 0.098 unit provided the other independent variables remain unchanged. Moreover the coefficient of firm size is 0.005. It indicates if total asset increases by Tk. 1 million, CGDI increases by 0.005 units provided the other independent variables remain unchanged. The coefficient of sponsor's ownership is 0.351. So for 1 unit increase of sponsor's ownership CGDI decreases by 0.351 unit provided other independent variables constant. 0.001 is coefficient of debt, indicates that CGDI increases by 0.001 unit for Tk. 1 million increase of debt provided the other independent variables remain unchanged. For 1 year increase of age, CGDI decreases by 0.237 unit provided the other independent variables remain unchanged. Finally, for increases of 1 board meeting, CGDI increases by 0.265 unit provided the other independent variables constant.

The beta coefficients of BS, FS, SO, DBT, AG and BM are consequently -0.047, .533, -.005, .039, -.265 and .101. So the most influential variable is firm size (Appendix ,Table A-2). Among all independent variables only firm size has statistically significant relationship with CGDI of GICs at 10% level of significance. Moreover the ANOVA test shows that all the independent variables collectively have no statistically significant relationship with CGDI as the test is not significant at 10% level of significance (Prob > F = 0.168, Appendix Table A-3). R^2 = 0.396, indicates 39.6 % variation of CGDI of CGDI is explained by BS, FS, SO, DBT, AG and BM. R = 0.544, which indicates there exists a moderate degree of positive relationship among variables (Appendix, Table A-1).

Table 4: Correlations

	CGDI	BS	SO	FS	DBT	AG	BM
CGDI	1.000	-	-	-	-	-	-
BS	-.087	1.000	-	-	-	-	-
SO	-.128	.031	1.000	-	-	-	-
FS	.465	.022	-.066	1.000	-	-	-
DBT	.355	.033	-.050	.725	1.000	-	-
AG	.006	.214	.233	.501	.382	1.000	-
BM	.312	.033	-.222	.378	.320	.007	1.000

Table 4 is showing the correlation matrix. It is showing that there is multicolinearity problem. Sources of the problem are: (i) the correlation between BS and AG (0.214) is higher than correlation between CGDI and BS (- 0.087), (ii) the correlation between SO and AG (0.233) and SO and BM (- 0.222) is higher than correlation between CGDI and SO (- 0.128), (iii) the correlation between DBT and FS (0.725) and DBT and AG (0.382) is higher than correlation between CGDI and DBT (0.355), (iv) the correlation between AG and FS (0.501) is higher than correlation between CGDI and AG (0.006), (v) the

correlation between BM and FS (0.378) and BM and DBT (0.320) is higher than correlation between CGDI and BM (0.312).

So the problem creating variables are sponsor's ownership, age, firm size and debt. To make the study valid and acceptable there are various ways to resolve this problem. Among them the most commonly used three procedures are:

- Transforming the variable to logarithmic form.
- Generating a new variable by combining the two highly interrelated variables.
- Using only one of the highly related variables in the final equation

According to the first technique, transformation to log, we've conducted the Box-Cox Transformation to decide in which form we should transform: log-log or semi-log. The result of Box –Cox is presented in appendix (Table A-4). It indicates that for all of the independent variables, theta = -1 is significant at 5% level of significance. It means semi-log transformation is preferable. Finally, log transformation of BM, DBT, FS and AG has been carried out in this study. Correlation matrix after log transformation of variables is presented in appendix (Table A-5). It reveals that the multicolinearity problem still exists. So finally, a new variable is generated by combining firm size and debt. In addition, the independent variable "Age" is dropped. Actually this independent variable can't explain variability of the CGDI (Appendix: Table A- 6). The correlation matrix after log transformation, factoring and dropping variables is shown in table 5:

Table 5: Correlations after Log Transformation, Factoring and Dropping Variables

	CGDI	BS	SO	FSDT	LOGBM
CGDI	1.000	-	-	-	-
BS	-.087	1.000	-	-	-
SO	-.128	.031	1.000	-	-
FSDT	.469	-.007	-.125	1.000	-
LOGBM	.364	.005	-.085	.320	1.000

Finally table 5 shows that there is no more multicollinearity.

Now the modified linear model is:

$$CGDI = \acute{a} + \hat{a}_1 BS + \hat{a}_2 SO + \hat{a}_3 FSDT + \hat{a}_4 LOGBM + \mathring{a} \quad \ldots\ldots\ldots (3)$$

In equation (3), FSDT stands for firm size and debt. LOGBM is the value of BM after transformation to natural log. The coefficients of this modified linear model are presented in appendix (Table A-7). Here, the independent variable FSDT is significant at 10% level of significance. The ANOVA test shows that all the independent variables collectively have statistically significant relationship with CGDI as the test is significant at 10% level of significance (Prob > F = 0.082, Appendix Table A-8). R^2 = 0.365, indicates 36.5 % variation of CGDI of GICs is explained by BS, SO, FSDT and LOGBM. R = 0.515 indicates a moderate degree of positive relationship exists among the variables (Appendix, Table A-7).

Now the linear regression equation is:

CGDI = 54.53 - 0.176BS - 3.944SO + 4.312E-06FSDT + 4.098LOGBM …… (4)

The equation (4) indicates that the constant is 54.53. It indicates that if all the independent variables remain constant, CGDI of GICs will be 54.53. Coefficient of board size is 0.176. It indicates if BS increases by 1 member, CGDI decreases by 0.176 unit provided the other independent variables remain unchanged. The coefficient of sponsor's ownership is 3.944. So for 1 unit increase of sponsor's ownership CGDI decreases by 3.944 unit provided other independent variables constant. 4.312E-06 is coefficient of firm size and debt indicates that CGDI increases by 0.000004312 unit for Tk. 1 million increase of firm size and debt provided the other independent variables remain unchanged. Finally, for increases of 1% of board meeting, CGDI increases by 4.098 unit provided the other independent variables constant. The beta coefficients of BS, SO, FSDT and LOGBM are consequently -0.083, -0.061, 0.376 and 0.201. So the most influential variable is firm size and debt. Number of board meeting is also influential. (Appendix, Table A-7).

1.8 Findings and Policy Implications:

The analysis of this study reveals that GICs of Bangladesh have chosen to disclose information regarding various issues of corporate governance with a view to ensure compliance with regulatory requirement . Key findings of this study are briefly discussed below:

- ✓ Average CGDI of sample companies is 59.14. 13 sample GICs (41.94%) have CGDI in between 56 to 60. 16.13% companies have CGDI in between 51 to 55. Highest score is 82.22, achieved by a single company. At the low end, three companies have CGDI 48.89. It reflects close monitoring and supervision of SEC on insurance companies.
- ✓ In general, the highest scores are associated with those disclosure items that address financial results, accounting policies and the existence of various governance structures and mechanisms. At the high end of the range, all selected companies have disclosed financial and operating results, critical accounting policies, dividend, composition and size of board, chairman's statement and division with CEO, change in board structure, compliance with different legal rules, existence of audit committee, director's remuneration, auditor's appointment and rotation, audit fees, shareholder's right and finally compliance with SEC notification .
- ✓ The selected companies are more eager to disclose financial information rather than non-financial information. All of the GICS disclosed the SEC required checklist. Only 12 companies disclosed both the SEC required checklist as well as separate statement of corporate governance or separate section for corporate governance to make their position clear regarding various aspects of corporate governance.
- ✓ To identify impact of corporate attributes on corporate governance disclosures a multi-index model has been developed in this study. The model reveals that only firm size and debt is significantly related to CGDI at 10% level of significance. But the ANOVA test shows that all the independent variables (board size, firm size, sponsor's ownership, number of board meeting and debt) collectively have

statistically significant relationship with CGDI as the test is significant at 10% level of significance (Prob > F = 0.082).

- ✓ According to this study, 36.5 % variation of CGDI of GICs is explained by board size, sponsor's ownership, firm size, debt and number of board meeting. A moderate degree of positive relationship exists among the variables. The most influential variable is firm size and debt. Number of board meeting is also influential. The independent variable "Age" is dropped. Actually this independent variable can't explain variability of the CGDI.

In light of the preceding discussion the following actions are suggested:

- ✓ The survey findings show that corporate governance disclosure in Bangladesh is significantly influenced by firm size. So steps should be taken for mandatory compliance of the SEC notification and for reducing the gap between large and small firms' disclosure.
- ✓ The survey result reveals that there are important corporate governance issues on which disclosure is not yet a widespread practice. It is particularly a matter of concern that the biography of the board members, remuneration committee information, code of ethics, directorship information, organizational hierarchy are not being widely disclosed. Given the growing complexity of business operations and of issues that boards have to deal with, the investing public would be interested to know whether members of the board of the enterprises in which they have invested or plan to invest in have sufficient educational and professional qualification to carry out the business, how the remuneration of the employees is being fixed, under which rules and guidelines the board members are running the business, to what extent the board members are busy with other companies' directorship. So this issue should be considered by the authority with privilege.
- ✓ The legal and regulatory framework should ensure that non-controlling shareholders or minority shareholders are protected from exploitation by sponsor shareholders. The Securities and Exchange Commission (SEC) of Bangladesh need to be strengthened so that it can devise and enforce a code for good CG. The Companies Act has to be amended and updated to have consistency with Bangladesh Accounting Standards (BAS), SEC requirements and the Bank Companies Act.
- ✓ Traditional view is that the nature of property rights, ownership structure and capital markets that affect the performance of corporate governance are the most important factor. This analysis suggests that further improvements needed towards the traditional view. From a practical perspective, government protection, the seriousness of law, media monitoring performance on corporate governance has a role can not be ignored. In the Economic transition, these factors may affect the company's management will become a major factor in the performance. These factors should be considered.

1.9 Conclusion:

Compared to the overall performance of the global economy, Bangladesh general insurance market has been able to put up a satisfactory standard and maintain sustainable growth. With a combined life and general insurance market Bangladesh ranks 85th in the

world and has a world market share of 0.01%. The quantitative growth of this industry of Bangladesh is quite impressive but this does not necessarily indicate qualitative development. To ensure proper operation of insurance business, it is required to implement effective corporate governance practice in this sector.

As regards the insurance sector, the regulatory responsibility to protect the interests of the policyholders demands that the insurers have in place , good governance practices for maintenance of solvency, sound long-term investment policy and assumption of underwriting risks on a prudential basis. The emergence of insurance companies as a part of financial conglomerates has added a further dimension to sound corporate governance in the insurance sector with emphasis on overall risk management across the structure and to prevent any contagion.

The survey findings show that corporate governance disclosure in Bangladesh is significantly influenced by board size, sponsor's ownership, firm size, debt and number of board meetings. Age does not have significant impact on corporate governance disclosure. It has been found that a good number of DSE listed GICs in Bangladesh have chosen to disclose information regarding various issues of corporate governance with a view to ensure compliance with regulatory requirement and to increase the confidence of various constituents of business as well as society. But only disclosure in the annual reports shall not be enough. Practice of good corporate governance and its appropriate disclosure can facilitate and stimulate the performance of companies, limit the insiders' abuse of power over corporate resources and provide a means to monitor managers' opportunistic behavior. Within the current type of analysis, scope may be widened by covering the corporate governance disclosure practice by Bangladeshi GICs over a number of years to find out the extent of importance the organizations are emphasizing on this issue. Moreover, other financial and non-financial sectors can be taken under consideration.

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APPENDIX -Table A-1:
Disclosure Items

Disclosure Items	Total	%
I. Financial Disclosures:		
1. Financial and Operating Results	31	100.00%
2. Related Party Transaction	5	16.13%
3. Critical Accounting Policies	31	100.00%
4. Corporate reporting framework	6	19.35%
5. Statement of Director's responsibilities towards preparation & presentation of FSs	1	3.23%
6. Risk and estimates in preparing and presenting FSs	7	22.58%
7. Segment reporting	0	0.00%
8. Information regarding future plan	3	9.68%
9. Dividend	31	100.00%
II. Nonfinancial Disclosures:		
10. Information about company objectives	22	70.97%
11. Ownership Structure	29	93.55%
12. Shareholder Rights	31	100.00%
13. Size of board	31	100.00%
14. Composition of board	31	100.00%
15. Division between chairman and CEO	31	100.00%
16. Chairman Statement	31	100.00%
17. Information about Independent Director	28	90.32%
18. Role and functions of the board	3	9.68%
19. Organizational Hierarchy	30	96.77%
20. Changes in Board Structure	31	100.00%
21. Compliance with different legal rules	31	100.00%
22. Audit committee	31	100.00%
23. Remuneration committee	0	0.00%
24. Any other committee	10	32.26%
25. Composition of the committee	8	25.81%
26. Functioning of the committee	27	87.10%
27. Organizational code of ethics	1	3.23%
28. Biography of the board members	4	12.90%
29. No. of directorship hold by individual members	7	22.58%
30. No. of board meeting	26	83.87%
31. Attendance in board meeting	25	80.65%
32. Director stock ownership	29	93.55%
33. Director remuneration	31	100.00%

34. Employee relation/Industrial relation	2	6.45%
35. Environmental and social responsibility	4	12.90%
36. Risk assessment and management	4	12.90%
37. Internal control system	2	6.45%
38. Auditor appointment and rotation	31	100.00%
39. Auditor fees	31	100.00%
III. Annual General Meeting:		
40. Notice of the AGM	30	96.77%
41. Agenda of the AGM	30	96.77%
IV. Timing and means of disclosure:		
42. Separate Corporate Governance statement/ separate section for CG	12	38.71%
43. Annual report through internet	21	67.74%
44. Any other event	14	45.16%
V. Best practices for compliance with corporate governance:		
45. Compliance with SEC notification	31	100.00%

Appendix -Table A-2: Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.219	8.697		6.579	.000
	BS	-.098	.373	-.047	-.264	.794
	SO	-.351	11.776	-.005	-.031	.975
	FS	.005	.003	.533	1.896	.070
	DT	.001	.008	.039	.155	.878
	AG	-.237	.195	-.265	-1.217	.236
	BM	.265	.509	.101	.520	.608
R = 0.544				R^2 = .396		

a: Dependent Variable: CGDI

Appendix -Table A-3: ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.049	6	.008	1.685	.168(a)
	Residual	.115	24	.005		
	Total	.164	30			

a: Predictors: (Constant), BM, AG, BS, SO, DT, FS

b: Dependent Variable: CGDI

Appendix -Table A-4: Box-Cox Transformation

1. Firm size (FS)		2. Debt (DBT)		3. Age (AG)		4. Board Meeting (BM)	
Test H0:	P-Value Prob > chi2	Test H0:	P-Value Prob > chi2	Test H0:	P-Value Prob > chi2	Test H0:	P-Value Prob > chi2
theta = -1	0.012	theta = -1	0.005	theta = -1	0.001	theta = -1	0.035
theta = 0	0.858	theta = 0	0.265	theta = 0	0.277	theta = 0	0.113
theta = 1	0.002	theta = 1	0.000	theta = 1	0.000	theta = 1	0.034

Appendix -Table A-5: Correlations after Log Transformation

	CGDI	BS	SO	LOGFS	LOGDT	LOGAG	LOGBM
CGDI	1.000	-	-	-	-	-	-
BS	-.087	1.000	-	-	-	-	-
SO	-.128	.031	1.000	-	-	-	-
LOGFS	.417	.020	.051	1.000	-	-	-
LOGDT	.232	.073	.075	.658	1.000	-	-
LOGAG	.051	.277	.356	.540	.427	1.000	-
LOGBM	.364	.005	-.085	.302	.328	.001	1.000

Appendix -Table A-6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.006(a)	.000	-.034	.0751160

a : Predictors: (Constant), AG

Appendix -Table A-7: Coefficients(a)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	54.53	10.217		5.337	.000
BS	-.176	.355	-.083	-.496	.624
SO	-3.944	10.941	-.061	-.360	.721
FSDT	4.312E-06	.000	.376	2.019	.054
LOGBM	4.098	13.7	.202	1.087	.287
R = 0.515			R^2 = .365		

a: Dependent Variable: CGDI

Appendix -Table A-8: ANOVA(b)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.043	4	.011	2.340	.082(a)
Residual	.120	26	.005		
Total	.164	30			

a: Predictors: (Constant), LOGBM, BS, SO, FSDT

b: Dependent Variable: CGDI

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Trade Liberalization and Its Impact on Growth: A Study on Bangladesh

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Abstract : Bangladesh adopted a comprehensive set of trade liberalization measures in mid-1980s with a view to reap more economic growth by fostering export thereby achieving a more favorable trade balance, more efficient allocation of resources, increased flow of foreign direct investment, employment creation and so on. Whether these liberalization measures worked as intended or not has been a matter of debate because researches conducted in this area produced inconclusive and mixed results. Hence, it has become a necessity of time to shed light on this issue. This study seeks to evaluate the impact of trade liberalization on the country's economy by analyzing the most updated data for the period 1971-2009 with the help of Ordinary Least Square (OLS) model. The empirical results suggest that economic growth in Bangladesh is significantly affected by trade liberalization. Not only that, trade liberalization is found to have significant impact on other macro variables like trade balance, current account balance, foreign direct investment (FDI), trade openness and labor participation. Again attempts have been made to examine whether economic growth fostered by trade liberalization affects trade balance, current account balance, FDI, trade openness and labor participation. This result is also positive and significant in most cases. Although the findings of this study look impressive, the paper argues that, for trade liberalization measure to work more properly, reforms in areas such as education, infrastructure, international financial integration, the development of domestic financial markets, practice of good governance etc. should be given more concentration and priority.

Keywords: Trade liberalization, GDP growth, trade and current account balance, FDI, trade openness, labor participation.

1.1 Introduction:

Bangladesh faced a daunting challenge of repairing her war-torn economy after independence in 1971. To be specific, the situation with regard to the external world was particularly difficult. Experiencing a very poor foreign exchange reserves, a thin export base and rising import prices, the Government imposed severe import controls, ranging from extensive use of tariff and non-tariff barriers (NTBs) to high and even prohibitive import duties. These conservative measures had a serious worsening effect on balance of payments situation.

Faced with this challenge Bangladesh started to open its external sector in early 1980s through initiating a number of policy measures which include a new industrial policy, encouraging privatization, fiscal reform, financial liberalization, maintaining flexible exchange rate, along with higher trade openness through reduction of implicit nominal tariff, and gradual shift from import substitution to export promotion (Salim, 2003).

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However this liberalization did not take place at once. Rather it was initiated in following three broad phases.

Before going to liberalization the country enacted Foreign Private Investment (Promotion and Protection) Act in 1980 with a view to attract higher foreign direct investment (FDI) mainly in export sector. The first phase of openness started during 1982-86 under the World Bank's policy based lending, while the second phase (1987-91) commenced with the IMF's three-year structural adjustment facility (SAF). However, the third phase came into effect with IMF's Enhanced Structural Adjustment Facility (ESAF) initiated since 1992 till very recently. These reforms resulted in substantially declined quantitative restrictions, opened up trade in many restricted items, rationalized and lessened import tariffs, and a more liberalized foreign exchange regime (Razzaque et al, 2003). Volume of trade has also been increased hand in hand.

Trade liberalization can exert impact on economic growth by efficient utilization of economic resources, reduction of tariff thereby lowering import price, increased competition, employment creation, flow of investments, ideas and knowledge beyond national boundaries etc. This is one side of the coin. Another side focuses that trade liberalization might invite import more than export and hence the benefits derived from economic growth might be offset by the unsustainable balance of payments position. Now the question is whether trade liberalization exerted substantial influence on economic growth in the country or not.

The objectives of this paper are to study the impact of liberalization on economic growth and on other macro economic variables such as trade balance and current accounts balance, FDI, trade openness, employment creation in Bangladesh. The paper also attempts to analyze the impact of growth on trade balance, current account balance, FDI, labor participation to examine whether higher economic growth due to liberalization leads to positive effect on the above-mentioned macro variables.

This paper is organized as follows: After the introductory remarks in section 1, sections 2 gives an overview of trade liberalization policies in Bangladesh, section 3 briefly reviews the literature on various liberalization measures and economic growth. The analytical methods and empirical findings are covered in sections 4 and 5 respectively. Finally, section 6 concludes the paper.

1.2. Overview of trade liberalization policies

This segment explores an overview of the policies and programs that have shaped liberalization of trade in Bangladesh. These policies, on the other hand, have been an integral part of the broad objective of developing and expanding the market economy of the country. It has been implemented under the Structural Adjustment Program and Enhanced Structural Adjustment Facility (SAP & ESAF) prescribed by the World Bank and IMF.

2.1 Initialization of reform policies

The initial reform efforts had neither a clear direction, nor a broad time frame for implementation, having a socialist approach and started in 1976 under government. This phase lasted for a decade. Four notable features of policy during this period of greater market orientation were: reduction of restrictions on investment; gathering momentum of

denationalization of public sector enterprises; limited reduction of tariffs and NTBs; and incentive packages for the emerging ready-made garments sector. However, after an inconsistent progress and growth in economy, during the latter half of the 1980s, in the area of tariff reforms, SAPs emphasized rationalization of the import regime in terms of leveling excessive tariff burden, simplification and reduction of effective protection, elimination of negative and restricted lists of industrial imports, and facilitation of imports of raw materials and intermediate and capital goods, including the imports needed for direct and indirect exporters. Even though having more consistent economic progress in the latter half of 1980, there was weak government commitment which hindered the real growth in this stage.

2.2 Contemporary reforms and policies of liberalization

In 1991, after the dramatically change in government, the policy reform process gained substantial momentum following the restoration of democracy. Since then, wide-ranging reforms and liberalization measures have been initiated and implemented, which have virtually transformed the policy landscape. These measures include tariff reductions, the elimination of a large number of quantitative restrictions (QRs), a flexible exchange rate regime, and the provision of a range of fiscal and financial incentives for export promotion.

The import policy currently being pursued is fairly easy and simple. By withdrawing different kinds of restrictions gradually, the import policy and the related procedures have been simplified further. The important objectives of present import policy are as follows:

i. To make the import policy compatible with the changes in the world market that have occurred as a result of the introduction of market economy and signing of the GATT Agreement;
ii. To simplify the procedures for import of capital machinery and industrial raw materials with a view to promoting export and enhancing competitiveness and skills;
iii. To provide facilities for introducing technological innovation to cope with expanding modern technology;
iv. To make a strong base of indigenous exports by facilitating backward linkages for export oriented local industries;
v. To ensure supply of qualitative and hygienic commodities to the consumers at right prices;
vi. To allow import of essential commodities on emergency basis for ensuring the supply of essential commodities in the national interest (Bangladesh Economic Review, 2009).

2.3 Tariff Reform

Throughout the 1990s, Bangladesh consistently reduced its import duties. The average unweighted customs duty fell from 47 per cent in 1993 to less than 16 per cent in 2004. During the same period, the average weighted import customs duty fell from 23 per cent to 12 per cent. The share of bound duties remained unchanged between 1997 and 2003, at 13.2 per cent, while the share of duty-free tariff lines increased nearly fourfold in a decade, from 4 per cent in 1992 to over 15 per cent in 2002. The maximum import duty

was reduced drastically from 350 per cent in 1992 to 30 per cent in 2003. The 2004/05 budget provided a further reduction of the maximum tariff rate. The percentage of tariff lines with duties over 15 per cent fell from 80 per cent in 1992 to 42 per cent in 2002 (Rahman pp 108) . Moreover, gradually tariff decreased not for consumer goods only, but also for intermediate goods, thereby making room for further liberalization.

2.4 Elimination of Quantitative Restrictions (QRs)

Three stages of substantial phasing out of QRs took place since 1991. The first major slashing of QRs, under the import policy order for 1991–1993, reduced the number of items on the import control list from 325 items to 193 items. During the period 1993–1997, the number of restricted items was cut to between 111 and 120 items. The import policy order for 2003–2006 reduced the number further, to 63 items, of which only 23 items are for trade reasons. As a result, the share of total Harmonized System (HS) 4-digit tariff lines subject to QRs fell more than threefold, from over 6 per cent in 1993 to less than 2 per cent in 2003 (World Bank, 2004). Moreover abolishing of "import licensing" took in this phase.

2.5 Management of Exchange Rate

Until 1979, Bangladesh followed a system of fixed exchange rates, which resulted in a highly overvalued domestic currency. During 1970's, only two major devaluations of the official exchange rate took place. In 1979 Bangladesh moved away from a fixed exchange rate system to a semi-flexible exchange rate system by pegging the value of taka to a basket of currencies of her major trading partners (Bhuyan and Rashid, 1993). The management of exchange rate gained a significant progressive reform since 1991, with the introduction of flexible exchange rate policy and taka had been regularly depreciated with a view to maintaining stability in the macro economy. Finally, in May 2003 Bangladesh chose a floating market exchange rate policy by free float of taka.

2.6 Export facilitation measures

Until the mid 1980's, Bangladesh maintained a strategy of import substitution and there was high anti-export bias. However, since 1985 several policy reforms have been taken place. Various financial incentives, duty free access to imported inputs, rebates on income taxes, concessionary duties on imported capital machineries were provided to the exporters. Major export promotion policies in Bangladesh have included the following (Bhuyan and Rashid, 1993, Rahman, 2001, Raihan, 2007): Export Performance Licensing (XPL)/Export Performance Benefit (XPB) Scheme, Special Bounded Warehouse Scheme, Duty Drawback System, Back-to-Back L/C System, Cash Compensatory Scheme, Export Credit Guarantee Scheme, Export Promotion Fund, Fiscal Incentives, Institutional Development for Export Promotion. However, the export quota system under Multi-Fiber Arrangement (MFA) on textile and clothing has been abolished since January 01, 2005. As a result, Bangladesh is facing steep competition in RMG export (Bangladesh Economic Review, 2009).

2.7 Regional cooperation

Bangladesh is currently a member of two RTAs (Regional Trade Agreements): SAFTA, the South Asia Free Trade Area and BIMSTEC, the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, economic cooperation arrangements

between Bangladesh, India, Myanmar, Sri Lanka and Thailand. These agreements are due to become operational in 2006. How these RTAs will bring economic growth and open up the door of liberalization of participating countries is dependent upon the outcomes of ongoing negotiations, including the depth and breadth of tariff cuts, disciplines on NTBs, the scope of negative lists, rules of origin and contingency provisions.

Table 1: Major Regional Trade Agreement participated by Bangladesh under International Economic Integration

Trade Agreements	Member Countries	Date of Establishment	Effective from
Asia Pacific Trade Agreement (APTA)	Bangladesh, India, Sri Lanka, the Republic of Korea, Lao People's Democratic Republic and China	Established in 1975. 1st Ministerial meeting on November, 2005.	1st September, 2006.
South Asian Free Trade Area (SAFTA)	Bangladesh, India, Sri Lanka, Nepal, Maldives, Pakistan, Bhutan, Afghanistan	4-6 January, 2004	January 1, 2006
The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)	Bangladesh, India, Sri Lanka, Thailand, Myanmar, Nepal and Bhutan	February, 2004	Has not taken effect yet
Trade Preferential System among OIC Countries (TPS-OIC)	Twenty Six (26) OIC countries	In 1991. Bangladesh has signed this agreement in 1997 and ratified it in 2004	Autumn, 2002
Preferential Trade Agreement among Developing Eight Countries (D-8)	Bangladesh, Pakistan, Malaysia, Egypt, Iran, Indonesia, Nigeria and Turkey	10-13 May 2006	Ratified on 18th April, 2011
SAARC Preferential Trading Arrangement (SAPTA)	Bangladesh, India, Sri Lanka, Nepal, Maldives, Pakistan, Bhutan	11th April 1993	December, 1995

Source: Bangladesh Economic Review, 2009 and Related Websites

3. Literature Review

Most of the literatures that have been done on macro economic impact of trade liberalization indicate positive allocation and better utilization of domestic resources thereby increasing the welfare of the country. Import restrictions of any kind create an anti-export bias by raising the price of importable goods relative to exportable goods. The removal of this bias through trade liberalization will encourage a shift of resources from the production of import substitutes to the production of export-oriented goods. This, in turn, will generate growth in the short to medium term as the country adjusts to a new allocation of resources more in keeping with its comparative advantage (McCulloch, Winters and Cirera, 2001). The classical models of international trade argue that trade

will promote growth by increasing the relative price of the good that is intensive in the relatively abundant factor (see, e.g. Deardorff, 1973, 1974). It has been found that the standard theory predicts an effect of trade openness on the long‐run level rather than on the long‐run growth of GDP (Lucas, 1988; Young, 1991). The new trade literature, on the other hand, argues that long‐term growth gains from trade can be channeled through more intense research and development activity (Romer, 1990; Grossman and Helpman, 1991; Rivera‐Batiz and Romer, 1991).

However this liberalization process may include various disadvantageous outcomes also, like a reduction in employment and output, the loss of industry- and firm-specific human capital, and macroeconomic instability arising from balance-of-payments difficulties or reductions in government revenue (Matusz and Tarr, 1999). As a result the liberalization should be accompanied with proper policy that can link it with lower price, better information, newer technologies as well as growth. It is therefore important to focus on the detailed pathways through which trade liberalization in each country has an impact on poverty (McCulloch, Winters and Cirera, 2001). In addition to the role of trade reforms in fostering trade in final goods, recent work by Feenstra and Hanson (1996, 1997, and 2003) has emphasized the growing importance of trade in intermediate inputs. This phenomenon is also referred to as "outsourcing" or "production sharing". In developing countries trade liberalization may affect the prosperity and growth in different ways. First, trade liberalization may increase a country's market size and, thus, may provide innovators with new business opportunities and allow domestic firms to take advantage of scale economies. Alesina, Spolaore and Wacziarg (2005) find evidence supporting this hypothesis —especially, for smaller countries. Second, trade can enhance technological diffusion and transmit know‐how and managerial practices, thanks to stronger interactions with foreign firms and markets (Keller, 2004; Sachs and Warner, 1995). In a seminal paper, Coe and Helpman (1995) described that foreign R&D has a beneficial effect on domestic productivity and that these growth benefits are particularly stronger in countries that are more integrated to international goods' markets. Analogous studies support the hypothesis of productivity gains due to trade‐facilitated technology spillovers among developed countries (Xu and Wang, 1999; Keller, 2000; Funk, 2001) as well as among developing countries (Coe et al. 1997). Consistent with this evidence, Lewer and van den Berg (2003) find that the strength of trade as an engine of growth depends on the composition of trade. More precisely the countries that import capital intensive goods and export consumer goods grow faster in compare to those countries, which export capital intensive goods mainly. Thirdly according to Calderona and Poggioa trade may enhance product market competition, thus reducing anti‐competitive practices of domestic firms and leading to higher specialization due to exploitation of comparative advantages of domestic firms.

Like most developing countries, Bangladesh trade reform was mostly concentrated in the manufacturing sector, which by contributing around 70 percent of export revenue is the most important foreign-exchange earner. Jute, Cotton textile, Match, Engineering, and Mustard oil are the five major industries in the manufacturing sector (Munshi, 2008). A study by Begum and Shamsuddin (1998) investigated the effect of export growth in Bangladesh for the period 1961-92. The authors concluded that the growth of exports has a significant and positive impact on economic growth through the increase in the total

factor productivity of the economy. On the other hand, using updated and revised data for the period 1980-2000 and examining the long run impact of export on economic growth, Razzaque et al. (2003a) found no evidence of a long-term relationship between exports and economic growth in the context of the Bangladesh economy. Ahmed and Sattar (2004) demonstrated that the higher average growth of Bangladesh in the 1990s over that of the 1980s should be attributed to the success of trade liberalization. However, the findings are not perfect, as is not clear whether the liberalization has any exclusive impact on the growth of economy or not. Various other events occurred simultaneously during that period. Moreover the empirical findings are not that much conclusive in support of liberalization impact on economic growth of Bangladesh. However, an advanced study Khondoker and Raihan (2004) found a slight long run impact on economic growth.

As a result, the aforementioned review of studies Bangladesh suggests there is no conclusive impact of trade liberalization on growth and other macro variables. It also discloses the utmost need for study using sophisticated frameworks and techniques.

4. Research design

4.1 Data

We have collected the data used in this study from various sources, the main one being the World Development Indicator, 2009 (Published by World Bank), Bangladesh Economic review (Published on various years), Bangladesh Bureau of Statistics etc. It is assumed that trade liberalization leads to higher economic growth and in order to verify this proposition we have analyzed the yearly data for a period of 39 years that include 20 pre-liberalization years (1971-1990) and 19 post- liberalization years (1991-2009). We have used the year of liberalization (1991) as dummy variables affecting growth, trade and current account balance, FDI, trade openness and labor participation.

4.2 Definition of variables

We have defined the macroeconomic variables used in our study in order to assess the impact of trade liberalization on these variables in the following way:

Table 2: Notations of the variables and Description

Notation	Definition
GDP_Growth	Growth rate of real annual GDP
TBGDP	Trade Balance as percentage of GDP
CABGDP	Current Account Balance as percentage of GDP
FDIGDP	Net FDI inflow as percentage of GDP
Openness	Export of goods and services plus import of goods and services as % of GDP
LP	Labor participation rate, total (% of total population ages 15+)
Lib_Time_Dummy	Liberalization dummy taking the value 1 when the country was liberalized (1991)

4.3 Methodology

In this section we present the econometric method that is used to assess the relationship between trade liberalization and economic growth. We use simple ordinary least square

(OLS) regression over the 1971-2009 period. We followed the OLS model used by Edison et al (2002).

OLS framework:

The basic OLS regression for our empirical analysis takes the following form:

$GROWTH = \alpha + \beta * trade\_Lib\_Dummy + ei \ldots\ldots\ldots\ldots\ldots (1)$

Where GROWTH, the dependent variable, equals real GDP growth rate, trade_lib_dummy is the

measure of timing of trade liberalization, α represents the constant term, β represents co-efficient of liberalization and ei represents standard error terms.

In the same manner we fit other macro variables i.e. trade balance to GDP (TBGDP), current account to GDP (CABGDP), FDI to GDP, trade openness, and labor participation as dependent variables in the left side of our simple OLS equation (1).

Then our second OLS framework to capture the effect of Growth resulted from trade liberalization on macro variables takes the following form:

$TBGDP = \alpha + \beta_1 * GROWTH + ei \ldots\ldots\ldots\ldots\ldots (2)$

Other macro variables CABGDP, FDIGDP, trade openness and labor participation are also fitted in the left side of the equation (2) in the similar manner to examine impact of GDP Growth on these variables.

Then to examine the impact of macro variables along with liberalization on GROWTH we rewrite our final OLS framework as follows:

$GROWTH = \alpha + \beta_1 * trade\_Lib\_Dummy + \beta_2 TBGDP + ei \ldots\ldots\ldots\ldots\ldots (3)$

Other macro variables CABGDP, FDIGDP, trade openness and labor participation are also fitted in the right side of the equation (3) in the similar manner to examine their impact on growth one by one.

5. Major findings and Discussion

We applied Ordinary Least Square (OLS) method on a binary liberalization indicator, by taking the value of one for post-liberalization growth and zero otherwise. Means, standard deviations, maximum and minimum value of GDP Growth, TBGDP, CABGDP, FDIGDP, trade openness, Labor Participation (LP) are presented in Table 3.

Table 3: Summary Statistics

Variables	Mean	SD	Max	Min	N
GDP_Growth	3.7916	3.9438	9.5920	-13.9737	39
TBGDP	-0.073556	0.027520	-0.0343	-0.1373	39
CABGDP	-1.0183	1.9386	3.7432	-5.1441	34
FDIGDP	0.2430	0.3925	1.3493	-0.0514	38
Openness	-0.0735	0.0275	-0.0343	-0.1373	39
LP	72.7138	1.7382	75.6	70.6	29

Sources: Results of OLS Regression, Sample Period 1971-2009.

We regressed growth in real GDP on the liberalization dummy for the entire period (1971-2009). We also relate trade balance to GDP (TBGDP), current account to GDP (CABGDP), FDI to GDP, Openness, and labor participation for the period 1971-2009 with liberalization variable to examine the extent to which trade liberalization alone explains each of these macro variables in Bangladesh. Results of the simple OLS regression reveal that trade liberalization has indeed promoted economic growth, trade balance, current account balance, foreign direct investment, trade openness. For the whole period, we find a significant and positive relationship between liberalization and the above mentioned variables except for labor participation meaning that liberalization deteriorates labor participation. We present significant results on the liberalization coefficient in Table 4. This table represents the results of the OLS equation (1).

Table 4: Bivariate relationship between GDP growth, trade balance, current account balance, FDI, trade openness, labor participation with trade liberalization

		Regression coefficient with respect to					
Period	Dependent	Constant	Lib_Time_Dummy	T	Sig.	R-Square	F-Value
1971-2009	GROWTH	2.385	2.887	2.428	0.020	0.137	5.896
	TBGDP	-0.093	0.040	6.727	0.000	0.550	45.250
	CAGDP	-2.549	2.739	5.739	0.000	0.507	32.941
	FDIGDP	0.017	0.453	4.324	0.000	0.342	18.696
	Openness	-0.093	0.040	6.731	0.000	0.550	45.302
	LP	74.150	-2.192	-4.001	0.000	0.372	16.005

Note:

1. Dependent Variables: Real Per Capita GDP Growth, Trade Balance to GDP, Current Account Balance to GDP, FDI to GDP, Trade openness, Labor Participation

2. Independent Variable: Trade Liberalization Dummy

3. Estimated by OLS, Sample Period 1971-2009

Then we tested the impact of economic growth resulting from trade liberalization on trade balance, current account balance, FDI, trade openness and labor participation. Except labor participation, all other variables have positive and significant economic growth impact. We present significant results of the OLS regression equation (2) in Table 5.

Table 5: Bivariate relationship between trade balance, current account balance, FDI, trade openness, labor participation with GDP growth

		Regression coefficient with respect to					
Period	Dependent	Constant	Growth	T	Sig.	R-Square	F-Value
1971-2009	TBGDP	-0.085	0.003	3.044	0.004	0.200	9.266
	CABGDP	-4.390	0.784	3.076	0.005	0.259	9.462
	FDIGDP	-0.881	0.251	5.374	0.000	0.517	28.877
	Openness	-0.085	0.003	3.045	0.004	0.200	9.270
	LP	75.554	-0.430	-1.883	0.071	0.429	9.773

Note:

1. Dependent Variables: Trade Balance to GDP, Current Account Balance to GDP, FDI to GDP, Trade openness, Labor Participation
2. Independent Variable: Real Per Capita GDP Growth
3. Estimated by OLS, Sample Period 1971-2009

We next tested whether growth was determined by trade balance, current account balance, FDI, trade openness, labor participation resulting from liberalization one by one. We tested the proposition whether the above determinants of growth are significant in Bangladesh in liberalized condition. Individual coefficients of trade balance, trade openness and labor participation are significant determinants where FDI and current account balance proves to be insignificant. The liberalization variable was significant and positive in few cases. Results of the OLS equation (3) are given in the Appendix.

5.1 Relationship between Growth, trade balance, current account and liberalization

It has long been debated that economic growth fostered by liberalization is deemed to have negative and insignificant impact on trade balance and current account balance. Trade liberalization opens an immense competition in the international market for the country and often forces the price of the exported commodity to be reduced. Not only that, import is often welcome as a result of flexible and in many cases no import restrictions. Combined effect of export price reduction and import formulation puts a negative pressure on country's trade balance and current account balance. We tested the impact of growth on trade balance and current account balance of the balance of payments to examine whether higher economic growth due to liberalization leads to adverse effect on balance of trade or not. Although the trade balance and current account balance data are found to be negative, we found no strong relation that economic growth accelerated by liberalization hampers trade balance. Rather growth variable from our empirical study shows a positive and significant relation with both trade balance and current account balance. Both the variables confirm their positive relation with GDP growth at 1% significance level (See Table 5).

5.2 Relationship between Growth, FDI and liberalization

Increased flow of FDI is theoretically expected to be associated with higher growth due to the transfer of technology, ideas, knowledge from abroad. Some studies found that

foreign direct investment (FDI) inflows are positively associated with economic growth under liberalization when countries are sufficiently rich (Blomstrom, Lipsey, and Zejan, 1994), educated (Borenzstein, De Gregorio, and Lee, 1998), or financially developed (Alfaro et al., 2001). Carkovic and Levine (2002) found that these results are not that much robust. Some empirical evidence has been provided on the growth effect of both FDI and foreign trade. Campos and Kinoshita (2002) investigated the growth effect of FDI in 25 countries in the 1990s in an augmented Solow model. They argued that FDI flows to transition countries are specifically obvious cases of technology transfer since these countries have suitably educated workforces to adopt new technologies, but had been deprived of international technology transfer. They found robust evidence for the positive impact of FDI on economic growth.

The present study provides empirical results on the role of FDI for growth in Bangladesh from two dimensions using time series data. First we examine the liberalization impact on FDI growth, and then we test the impact of growth on FDI. Trade liberalization is seen to have positive and significant impact (at 1% level) with a t value of 4.324 (Table 4). At the same time, economic growth proxied by real GDP growth on FDI also shows positive and significant impact (Table 5).

5.3 Relationship between Growth, trade openness and liberalization

Trade openness, often proxied as Trade-GDP ratio in empirical studies is found to have positive and significant relationship with growth (Harrison, 1996; Frankel and Romer, 1999; Irwin and Tervio, 2002), which may be due to greater access to world market, development of R&D, and technology diffusion. However, Lee (1993), Harrison (1996), and Edwards (1998) found a negative relationship between the two.

So, it has been a matter of debate that whether trade openness resulting from liberalization causes economic growth, To answer this question, we first simply regress trade openness on liberalization dummy to assess whether trade liberalization alone can have any effect on trade openness. We find the answer as 'yes'. This positive answer is guaranteed at 1% significance level (Table 4). Then we regress trade openness on GDP growth to see whether increased GDP growth from liberalization causes increased trade openness. This result is also significant and positive (Table 5). So our conclusion regarding this variable goes in line with that of Harrison (1996); Frankel and Romer (1999); Irwin and Tervio ((2002).

5.4 Relationship between Growth, labor participation and liberalization

According to traditional Heckcher Ohlin theory of factor price equalization, free trade among countries increases the demand for the commodities which uses the country's relatively abundant factors thereby ensures more demand of the factors (labors in case of Bangladesh) and equilibrium price of labor. Hence theoretically it is expected that trade liberalization will lead to enhanced labor participation through job creation. However, the relationship between trade liberalization and employment creation are inconclusive. Results of the empirical studies on trade liberalization-employment creation nexus are mixed. Some studies show that higher employment was achieved as a result of trade liberalization, (Papageotgiou et al 1990), (Fu and Balasubramanyam 2005). However Collier (1993), Rama (1994), Ernest (2005), Carenio and Arbache ((2003) etc. found the relationship to be negative.

Our study reveals finding similar to that of Carenio and Arbache (2003). Regression of labor participation rate on trade liberalization dummy shows a negative relation at 1% significance level (Table 4). This negative relation implies that trade liberalization has negative impact on employment i.e. liberalization causes job destruction, relocation of labor forces, increased demand for skilled labor thereby reducing participation of average non-skilled and semi-skilled labors. Economic growth impact of employment is significant at 10% significance level with a negative sign (Table 5). This proves that economic growth arising from trade liberalization does not guarantee employment creation.

6. Conclusions and policy recommendations

The objective of this study is to examine the economic growth-trade liberalization nexus in the context of Bangladesh quite comprehensively by using a range of simple measures to conclude that trade liberalization helps attain higher real GDP growth in the country. In this paper, we have examined this relationship by means of Ordinary Least Square method by using yearly data over the period 1971-2009 and we found an impressive result.

Our study reveals that trade liberalization alone significantly affect all the macro variables i.e. trade balance, current account balance, FDI, trade openness, labor participation. Impacts of trade liberalization on macro variables are positive in most cases. The possibility of export reduction and import promotion from flexible and less restrictive import policies resulting from trade liberalization is ruled out from the results of our study because we observe a positive and strong relation between trade liberalization and trade balance and current account balance. Foreign direct investment is also seen to be increased due to trade liberalization. Impact on trade openness arising from liberalization is also optimistic. Only liberalization co-efficient associated with labor participation shows negative sign meaning that trade liberalization has created job destruction. It is also evident that economic growth is affected by trade and current account balance, FDI, trade openness significantly and positively whereas employment has negative but significant impact on real GDP growth. So from our analysis it is apparent that economic growth and macro variables contribute each other simultaneously in a liberalized condition.

Although the results of our empirical study give an optimistic outlook, this is not the ultimate conclusion. There is still ample scope for Bangladesh for reaping the economic growth benefits from trade liberalization. First thing that should be ensured is to reduce the negative trade balance and current account balance persisting in our country's balance of payments for a long period of time. Government should also take care of the issue of employment creation and take necessary steps to create environment and facilities to enhance labor participation. More specifically, reforms in areas such as education, infrastructure and the development of domestic financial markets should be given more concentration and priority. Not only that, some important factors related to governance such as bureaucracy, domestic political influence in liberalization process, regional and international influence in the liberalization process and in the country's overall economy should also be addressed and controlled while examining the impact of trade liberalization on economic growth. Because it is beyond doubt that as a developing country Bangladesh would not be able to yield substantial benefits from any

comprehensive set of trade liberalization measures unless the preconditions such as basic infrastructures and good governance are in practice to ensure the liberalization measures to fit and act properly.

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Appexdix-Table-1
Appendix (OLS Results: Equation 3)

Bivariate relationship between GDP growth, trade balance with trade liberalization

	Beta	t	Sig.
Constant	7.507	2.445	0.019
Lib_Time_Dummy	0.672	0.389	0.700
TBGDP	54.965	1.730	0.092
R-Square	0.204		
Adjusted R-Square	0.159		
F-Value	4.602		

Note:
1. Dependent Variables: Real Per Capita GDP Growth, 2. Independent Variable: Trade Balance, Trade liberalization Dummy.
3. Estimated by OLS, Sample Period 1971-2009

Appexdix-Table-2
Bivariate relationship between GDP growth, current account balance with trade liberalization

	Beta	t	Sig.
Constant	4.316	8.171	0.000
Lib_Time_Dummy	0.924	1.478	0.149
CABGDP	0.168	1.034	0.309
R-Square	0.262		
Adjusted R-Square	0.215		
F-Value	5.513		

Note:
1. Dependent Variables: Real Per Capita GDP Growth, 2. Independent Variable: Current Account Balance, Trade liberalization Dummy. 3. Estimated by OLS, Sample Period 1971-2009

Appexdix-Table-3
Bivariate relationship between GDP growth, FDI with trade liberalization

	Beta	t	Sig.
Constant	2.771	3.427	0.002
Lib_Time_Dummy	1.722	1.223	0.230
FDIGDP	1.658	0.912	0.368
R-Square	0.136		
Adjusted R-Square	0.087		
F-Value	2.757		

Note:
1. Dependent Variables: Real Per Capita GDP Growth, 2. Independent Variable: FDI, Trade liberalization Dummy.
3. Estimated by OLS, Sample Period 1971-2009

Appexdix-Table-4

Bivariate relationship between GDP growth, trade openness with trade liberalization

	Beta	t	Sig.
Constant	7.510	-0.229	0.820
Lib_Time_Dummy	0.670	0.388	0.701
Openness	54.998	1.730	0.092
R-Square	0.204		
Adjusted R-Square	0.159		
F-Value	4.604		

Note:

1. Dependent Variables: Real Per Capita GDP Growth, 2. Independent Variable: Trade Openness, Trade liberalization Dummy.

3. Estimated by OLS, Sample Period 1971-2009

Appexdix-Table-5

Bivariate relationship between GDP growth, labor participation with trade liberalization

	Beta	t	Sig.
Constant	28.475	3.147	0.004
Lib_Time_Dummy	0.812	1.852	0.075
LP	-0.334	-2.738	0.011
R-Square	0.512		
Adjusted R-Square	0.474		
F-Value	13.618		

Note:

1. Dependent Variables: Real Per Capita GDP Growth, 2. Independent Variable: Labor Participation, Trade liberalization Dummy. 3. Estimated by OLS, Sample Period 1971-2009

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