

Final Draft

**A COMPREHENSIVE STUDY ON THE REAL  
ESTATE SECTOR OF BANGLADESH**

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## EXECUTIVE SUMMARY

Like any other country in the world, the housing sector plays vital roles both in the context of the economy of Bangladesh and serving the fundamental human right of shelter. Apart from providing physical shelter, housing may have significant impact on the lives of the dwellers in terms of skills enhancement, income generation, increased security, health, self-confidence and human dignity. Bangladesh, like many other developing countries, faces an acute shortage of affordable housing both in the urban and rural areas. Moreover, housing affordability is being eroded by poor land administration policies, which have resulted in very high land prices that make urban housing prohibitive for lower-income groups. Also, there is no active secondary market for real estate, mainly because of the high transfer taxes and an uninterrupted long-term increase in land prices. In spite of all these, this sector has experienced considerable growth in past few decades.

With a rising population and increasing housing demand, apartment culture has grown up in Dhaka sharply. Apartments were first introduced by the formal private developers in early 80s to the housing history of Dhaka. It first appeared in Dhaka near Central Road and subsequently the city experienced a boom in apartment development in all residential areas including Paribagh, Maghbazar, Siddeshwari, Shantinagar, Dhanmondi, Mirpur, Banani, old DOHS, new DOHS, Gulshan and Baridhara, to name just a few. In line with this, house rent in Dhaka increased by 250 percent between 1990 and 2007.

During the last decade, the total volume of Real Estate, Renting and Business service sector increased every year which implies a positive growth in the sector every year. But, compared to overall GDP growth, this sector expanded at a slower rate. That is why in overall GDP the contribution of this sector has a downward trend. The overall GDP contribution of the sector was 7.02% in 2009-2010. In a crude measure, the total volume of the sector was approximately 26575.74 crore BDT in 2010-2011. The growth in this industry also facilitated a fast growth in many linkage industries like

glass and glass products industry, brick industry, cement industry, ceramic industry, iron and steel industry etc over the last decade. Such consistent growth in the real estate sector is mainly due to a consistent demand at the consumer end.

Through the analysis of consumer responses it was found that those who are looking for owning a house or within a short or medium time frame have an average monthly family income of BDT 95,441.18 and on an average plan to build their houses on 4.6 kathas of land. Those who are looking for buying an apartment within a short or medium time frame have an average monthly family income of BDT 97,300 and on an average they want to purchase 1,786 square feet flats. Among the respondents around 50% (330 out of 676) has an average family saving of around BDT 20,000. Currently, consumers are more interested to buy flats than build their own houses. People who already own a house or flat are still very willing to buy another property which actually adds in the growth in the demand. Buyers from the 40-50 years age group are more willing to build their own houses in upcoming years. Younger segments are willing to purchase flats rather than building their own houses. But in most cases they do not have any immediate plan. For building houses, people mostly prefer Uttara, Mirpur, Purbachal area, Bashundhara area, Mohammadpur, Dhanmondi, and Gulshan areas. For purchasing flats, consumers mostly prefer Dhanmondi, Uttara, Mirpur, Mohammadpur, Gulshan-Banani, Basundhara and Malibagh-Mogbazar areas. Among different occupational groups, Businessmen, Private Bankers, and Doctors (both Govt. service holders and private practitioners) are more willing to build their own houses or purchase flats. Major sources of fund are bank loan, and personal and family savings. One overall perception of the consumers is that the government is yet to play proper roles in meeting the housing needs while the private sector is contributing significantly. Through analyzing the consumer responses, it is estimated that demand for houses in upcoming three years is around 30,000 to 40,000; in upcoming five years demand is around 60,000 to 80,000; and in upcoming 10 years demand are around 95,000 to 130,000. In case of flats, estimated demand in upcoming three years is around 75,000 to 100,000; in upcoming five years demand is around 90,000 to 125,000; and in upcoming 10 years demand are around 70,000 to 95,000.

In line with the demand, the prices of real estate properties are also rising very fast. Price hike of land and construction materials also add to the overall price hike. The price of land is increasing at a very high rate after 1990. After 2000, the rise in land price became steeper. There is no control of the govt. over the price increase of land within Dhaka city. Increased land price have a direct impact on apartment price. Also, after 2005, price of bricks, granular sand, cement, grade 60 rod etc. had a rapid, almost exponential, increase. Due to such unimaginable increase in land price as well as sharp increase in prices of the construction materials price increase of apartments became an obvious consequence.

As an obvious result of such price hike, a good amount of undocumented money has been utilized in acquiring land, apartments, buildings, shops etc. in past few years. But the usage of black or undocumented money in the Real Estate sector cannot be measured precisely because no authentic information is available anywhere. Apart from such undocumented money, foreign remittance is a prominent source of fund to purchase any real estate property along with personal and family savings, and bank loan. But, any consolidated figure about how much foreign remittance is invested per year in real estate sector was not available.

Apart from meeting the housing needs, the Real Estate sector contributes to the Government exchequer through Registration Fees, VAT, Advance Income Tax (AIT), Stamp Duty, Property Handover Tax etc. Also, the construction industry is a labor-intensive industry, whose capacity of absorbing labor is great. The industry provides many jobs for skilled, semi-skilled and unskilled workers both in the formal and informal sectors. For the migrants from the rural areas the construction industry is often a stepping stone to urban life. Real Estate sector is a major part of the construction sector. Most of the labour force engaged in the construction sector is basically engaged in the Real Estate sector. Thus real estate sector is also contributing a lot in the overall economy of Bangladesh.

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# A COMPREHENSIVE STUDY ON THE REAL ESTATE SECTOR OF BANGLADESH

## 1 INTRODUCTION

The housing sector plays vital roles both in the context of the economy of Bangladesh and serving the fundamental human right of shelter which actually call for the awareness and analysis regarding various pertinent issues involving the sector. These analyses include the size and contribution of the housing sector to the economy, current market structure and trends in this sector, regulatory framework governing this sector, various government policies and associated challenges arising from recent economic crises and policy changes. Without adequate information the players in this sector cannot plan and prepare themselves for the challenges and opportunities. Besides, the government cannot make appropriate policy interventions to make an appropriate balance between the facilitation and regulation for the betterment of both this sector and its contribution to the overall economy. Availability of proper information is also necessary from the perspective of the investors so that they can make efficient investment decisions. This is very vital as the sector grows to its matured phase, investors has to be well aware of the facts and status of the industry. Various linkage industries, particularly those who depend solely or heavily on the housing sector need accurate information, facts and forecasts to safeguard their interests. And last but not the least consumers cannot make the best use of their scarce savings for their accommodation if they do not have proper information of this sector. Thus, availability of more market related information will define, with greater accuracy, the nature of the future development required in this sector. Despite the significant growth of the housing sector in the recent past, good research dealing with the development of this sector is lacking. This is compounded by the fact that there is a lack of adequate statistical information.

## 1.1 OBJECTIVES

### 1.1.1 BROAD OBJECTIVE

The broad objective of this study is to do a widespread research on the housing sector of Bangladesh, i.e. to gather and compile all possible relevant data regarding the housing sector of Bangladesh and to provide accurate market related information for the decision makers.

### 1.1.2 SPECIFIC OBJECTIVES

The specific objectives of this are:

- To measure the contribution of Real Estate Sector in the national GDP of Bangladesh
- To assess the contribution of Real Estate Sector in providing shelter, solving housing needs of urban population
- To calculate the total volume of Real Estate Sector along with its growth in the last five years
- To assess the contribution of Real Estate sector in development of different linkage industries
- To measure the usage of bank loan or other credit schemes in Real Estate sector – total volume of bank loan by both developers and apartment buyers with year on year growth
- To quantify the usage of undocumented money in this sector
- To gauge the amount of NRB investment in this sector
- To compute contribution in the Government Exchequer including Advance Income Tax (AIT), VAT and Registration fees
- To assess the impact on Government Revenue collections as a result of increase of AIT in the recent budgets
- To assess the Present market trend analysis – demand and supply
- To measure the employment aspects such as no. of professionals / skills / unskilled engaged in this sector, growth of employment every year, training with updated technology, training school for masons, labours, and others
- To assess the trend of price hike of land and apartments
- To identify the potential buyers based on age, education and profession along with their earnings as per various age groups and their preference of product

## 1.2 SCOPE OF THE STUDY

The geographic scope of this research is confined within Dhaka city. For the demand side, of the study representative samples were drawn from the existing and potential consumers within Dhaka city. For the supply side, the REHAB members and different linkage industries within the Dhaka city were covered.

## 1.3 METHODOLOGY

The study has been conducted on two sets of population, one representing the demand side and the other the supply side of the Real Estate sector. On the demand side, the population consists of all the existing and potential consumers and the supply side consists of all the 1081 member companies of REHAB.

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### 1.3.1 SOURCES OF DATA

This study has been conducted based on both primary and secondary data. The secondary research was mainly required for the background study on this sector and to define the research problem. For the supply side, secondary sources were brochures and reports from different member companies of REHAB, and the web. Primary sources were the Management and Professionals from REHAB member companies, Government Officials, Experts and Policy Makers, and representatives from different linkage industries.

For the demand side, primary sources were from existing and potential clientele. Besides, some secondary sources like small scale research reports conducted during the REHAB fairs have also been used.

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### 1.3.2 RESEARCH DESIGN

This study is a combination of both Exploratory and Descriptive research methods.

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#### 1.3.2.1 EXPLORATORY RESEARCH

Initially, exploratory research was done to provide insights and understanding of the problem. Research process in this part was flexible and unstructured; samples were small and non representative; analyses of primary data were qualitative.

**METHODS:** Among the different exploratory research methods secondary data analysis and qualitative techniques such as in-depth interview with concerned government officials, experts and policy makers was used. Besides, there was a Focus Group Discussion (FGD) with renowned REHAB member firm owners.

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#### 1.3.2.2 DESCRIPTIVE RESEARCH

A well planned descriptive research followed the exploratory part mentioned above. In this part, research process was formal and structured; sample was large and representative; data analysis was quantitative.

**METHODS:** Among the descriptive research methods, questionnaire survey was administered in gathering information. A semi-structured questionnaire with open-ended as well as some closed questions was used to reveal relevant information. Before administering the large scale survey, a pilot survey was conducted to refine the survey instruments and fine tune the study.

### 1.3.3 SAMPLE DESIGN

As mentioned above, this study was conducted on two sets of population, one representing the demand side and the other the supply side of the Real Estate sector.

#### 1.3.3.1 DEMAND SIDE

**SAMPLING METHOD:** In this survey, non-probabilistic sampling methods were selected because the complete sampling frame for the target population was not available that is necessary to conduct the usual probabilistic sampling techniques. Besides, limited time and budget also guided the researchers to go for non-probabilistic methods.

To ensure representativeness, the RAs were sent to the different zones defined above at different dates to collect data. Within a zone, the RAs randomly approached potential sampling elements and collected responses from those sampling units who have willingly participated in the survey. Moreover, the sample size was large enough, i.e. 676, to ensure representativeness.

**SAMPLING FRAME:** Several sampling frames based on profession and income level were used.

Basis	Sample frame
Profession (Govt./ Semi-govt./ Private)	Doctor, Engineer, Banker, Teacher, Businessman, Lawyer, Service holder, and Others
Income Level (Tk./ Month)	30,000 or below, 30,000-45,000, 45,000-60,000, 60,000-75,000, 75,000 or above

**SAMPLING ELEMENT:** Individual households from existing and potential clients

**SAMPLING UNIT:** Individuals from existing and potential clients

**SAMPLE SIZE:** 676, which is sufficiently large for this sort of surveys

**CHANNEL OF APPROACH:** Both physical survey and online methods

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#### 1.3.3.2 SUPPLY SIDE

**TARGET POPULATION:** All the 1081 member companies of REHAB and different linkage industries

**CHANNEL OF APPROACH:** Physical visit

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#### 1.3.4 DATA COLLECTION

A detail structured questionnaire with open-ended as well as some closed questions was developed and used to collect data.

For the data collection process, 42 students from the graduate students of IBA and the Department of Statistics, Biostatistics & Informatics, University of Dhaka were selected as Research Assistants (RA). They were trained for two days so that they can collect data uniformly. Training covered making the initial contact with the respondents, asking the questions, probing, recording the answers, and terminating the interview etc.

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#### 1.3.5 DATA ANALYSIS

Quantitative analysis was done using statistical and mathematical tools such as Statistical Package for Social Science (SPSS) and MS Excel. Useful and reliable models such as Univariate Analysis, Bivariate Analysis, Multivariate techniques were developed to analyze the data.

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#### 1.3.6 QUALITY CONTROL

Quality control of field workers was done to see if the field procedures were being properly implemented. Two consultants were responsible for supervising the quality issues. The filled questionnaires were examined to make sure all appropriate questions were completed, unsatisfactory or incomplete answers were not accepted, and the writing was legible. Attempts were made to ensure that the research assistants were strictly following the sampling plan. The supervising consultants kept daily records of the number of completed interviews for each interviewer to control the quality related problems.

#### 1.4 CRITICALITIES AND LIMITATIONS

While conducting the study, the research team faced several critical issues that limited the scope of the research to some extent. Some of the limitations of this study are as follows:

- ▶ Due to non response from most of the Real Estate Developer companies some of the specific objectives were fulfilled using data from secondary sources. To calculate the accurate volume, growth, and GDP contribution of this sector, data from all the REHAB member companies were a must and in the proposal it was proposed to collect data from all the member companies. At least data from the major real estate developers might have served the purpose. The research team targeted to collect data from at least 400 companies, including the major ones, so that the size and GDP contribution can be estimated properly. Letters were issued several times to the member companies to send the required data and to co-operate the research team. The research assistants visited and called most of the companies 7/8 times so that they send the data. Despite all this, only 56 member companies responded which was insignificant in terms of total coverage. Besides, no major real estate developer sent any information. They were very reluctant to provide their data and most of them denied to provide any data for this purpose. Some of the companies, though promised to send data within one week, did not send any data.



- ▶ Unavailability of required data sources, specially the Government sources, was another major obstacle in completing the study. For example, there is no computerized information system at the National Board of Revenue (NBR) and Office of the Inspector General of Registration. In these offices, data are kept in segregated manual format. So that, getting appropriate information from these offices within the defined timeline was possible. The appropriate personnel, who are the custodian of the data, informed the research team that, as there is no automated information system, data needed to be consolidated from the ledgers manually and it would take at least six months time to provide the data.
- ▶ Even in the Bangladesh Bureau of Statistics (BBS), data are not at all organized. Even the higher officials were unable to explain the method of GDP contribution. They usually outsource the task and could not provide the underlying calculation. Data from BBS was extracted by searching the statistical yearbooks.
- ▶ Data about the linkage industries associated with this sector was not available. The associations of different linkage industries, such as, Bangladesh Re-Rolling Mills Association, Bangladesh Cement Manufacturers Association, Bangladesh Ceramic Wares Manufacturers Association, Bangladesh Brick Manufacturing Owners' Association, Bangladesh Ceramic & Glassware Importers Association, Bangladesh Aluminum Manufacturers' Association, etc were visited by the research team. But these associations have no data repository regarding how much of their sales go to the private real estate sector. The research team talked to different experts in these sectors, but their opinions varied over a wide range and were also not supported by any concrete data. So it was not possible to calculate the contributions of the real estate sector to the linkage industries.
- ▶ Though undocumented economic activity holds a large portion of the national economy of Bangladesh, the usage of undocumented money in the Real Estate sector cannot be measured precisely because no authentic information is available anywhere.

- ▶ Foreign remittance is a prominent source of fund to purchase any real estate property along with personal and family savings, and bank loan. But, any consolidated figure about how much foreign remittance is invested per year in real estate sector was not available. From the output of the consumer survey, foreign investment was just identified as a major source of fund.
- ▶ Scenario of the developer companies outside Dhaka was not covered in this report.
- ▶ For the consumer survey, probabilistic sampling methods were not selected because the complete sampling frame for the target population was not available which was necessary to apply the usual probabilistic sampling techniques. Besides, limited time and budget also guided the researchers to go for non-probabilistic methods.

## 1.5 REPORT PREVIEW

Chapter one of the report is the introductory chapter. This chapter states the objective, scope, methodology, and limitations of the study.

Chapter two contains some relevant discussions regarding Dhaka city and evolution of the Real Estate sector in Dhaka city. The trend and life cycle stage of the Real Estate industry is also discussed in this chapter.

Chapter three is the major part of the report containing detail findings of the study. In this chapter, findings against the specific objectives are narrated in detail.

Finally, chapter four contains the conclusion and recommendations part of the report.

Beyond providing physical shelter, housing may have significant impact on the lives of the dwellers in terms of skills enhancement, income generation, increased security, health, self-confidence and human dignity. Nordberg has clearly demonstrated that in most regions, housing has the potential of becoming an engine of economic growth because of its high yield on invested resources, a high multiplier effect, and a host of beneficial forward and backward linkages in the economy. Both the Constitution of the People's Republic of Bangladesh and the UN Declaration on Fundamental Rights recognizes shelter as one of the fundamental human rights. Making shelter available to all is increasingly becoming a significant challenge in Bangladesh. The economic development is far from satisfaction and the GDP per capita in 2010-11 is Tk. 26019 (Monthly Economic Trend, Bangladesh Bank). Moreover, a large portion of the population lives below the poverty line and are deprived of habitable shelter along with other basic services. Bangladesh, like many other developing countries faces an acute shortage of affordable housing both in the urban and rural areas (Md. Maksudur Rahman Sarker, 2011). Moreover, housing affordability is being eroded by poor land administration policies, which have resulted in very high land prices that make urban housing prohibitive for lower-income groups; and in infrastructure that is inadequate for expansion into periurban and rural areas. There is no active secondary market for real estate, mainly because of the high transfer taxes and an uninterrupted long-term increase in land prices (World Bank Document, 2010).

With 147.9 million people (Bangladesh Economic Review, 2011), Bangladesh is one of the most densely populated countries in the world. Land prices are high and permanent housing is rare—barely 2% in rural areas and 23% in urban centers. Estimates suggest a shortage of about 5 million houses in Bangladesh, with as many as 500,000 houses added annually in urban areas and 3.5 million added in rural regions (World Bank Document, 2010).

Statistics show that Bangladesh will need to construct approximately 4 million new houses annually to meet the future demand of housing in the next twenty years. Estimates for annual requirements for housing in urban areas vary from 0.3 to 0.55 million units. The share of urban population in Asia is 37% at present and is projected to be 45% by 2015. In Bangladesh 25% of the population now live in urban areas; this

proportion will be 34% by the year 2015 (Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, 2003). Dhaka, with a total population of over 10 million, is the 9<sup>th</sup> largest city in the world and also 28<sup>th</sup> among the most densely populated cities in the world (Wikipedia, 2012). While comparing the growth of the real estate and housing, and the construction sector with that of GDP, it was found that growths in the two sectors are the period 1992-2002 were 4.8 and 7.5% is much higher than the trend growth in GDP of 4.6% for that period. The shares of the real estate and housing sector and the construction sector in the GDP were quite high in the year 2002 and accounted for 8.3 and 8.0% respectively. However, the incremental contributions of these two sectors in the same year were also considerably high at 6.0 and 12.8% respectively (Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, 2003).

The real estate sector is at present creating employment for about one million people who are directly or indirectly involved in the sector. According to the Labour Force Survey (LFS), in 1999-2000, 2.1% of the labour force was engaged in construction, whereas for 1995-1996 the figure was 1.8% respectively (Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, 2003). According to Labour Force Survey (LFS) 2005-2006, conducted by Bangladesh Bureau of Statistics (BBS), projected labour force engaged in construction sector is 4.4 percent. This scenario actually implies a consistent growth in the involvement of the labour force in the construction sector which makes this sector critical from the perspective of employment generation in Bangladesh.

Recent information concerning investment in the housing sector shows steady growth both in absolute terms and as a percentage of total private investment and GDP. Private investment in housing and construction has more than doubled during the Fourth Five Year Plan period, from US\$ 11.66 million in 1989-1990 to US\$ 264.83 million in 1994-1995. During the first three years of the Fifth Five Year Plan period, the average investment in housing and construction was US\$ 1273.65 million. As a share of total private investment, private investment in housing and construction in the 1997-1998 to 1998-1999 period accounted for 47.3% which far exceeded the target of 16.35% for this period. The proportion of investment in housing and construction in the national GDP increased from 3.4% in FY 1997 to 4.1% in 1999 (Strengthening the Role of Private Sector Housing in Bangladesh Economy: The

Policy Challenges, 2003). These data portrays the incremental attraction of this sector to the private investors of Bangladesh. This sector is also facilitating the growth of around 300 different linkage industries.

Real Estate business, especially apartment projects, took off in the Dhaka City in the late 1970s. From the early 1980s the business started to flourish and showed robust growth. At present, more than 1000 companies are active in the real estate business in the country. The market is highly segmented, primarily based on location, price of the land and size of the apartments. The main reasons for the development of real estate business in Dhaka city are:

- Scarcity of open spaces in important parts of the city.
- Hazards of purchasing land.
- Rapid increase in the population of Dhaka.
- Increase in remittance flows in recent years which financed the sector.

Experts opine that, Bangladesh will encounter high levels of urbanization by 2015 and by that time Dhaka will need to house about two crores people to become the fifth largest city in the world. So mitigation of this huge demand requires a long-term plan to be formulated so that a collective effort from both the private sector developers and individual developers may adequately provide for the huge demand (Strengthening the Role of Private Sector Housing in Bangladesh Economy: The Policy Challenges, 2003).

## 2.1 EVOLUTION OF DHAKA CITY

Cities are always developed and transformed through the interaction between different social, political, economical, and technological forces. Dhaka represents a composite urban form developed through ages (Islam, 1996). The evolution of Dhaka city was on the north bank of Buriganga River. Until 1950 its growth was confined more or less between the Buriganga River in the south, Turag River in the west, Sitalakha River in the east, Balu River in the north-east and Tongi khal in the north. The four-hundred-year history of the Dhaka City can be divided into five different stages:

- i) Pre-Mughal Dhaka: Before 1608 A.D.
- ii) Dhaka under the Mughals: 1608 - 1764 A.D.
- iii) Dhaka under British: 1764 – 1947
- iv) Dhaka after Independence from British Rules: 1947 – 1971
- v) Dhaka becomes Capital of Independent Bangladesh: Since 1971

Before 50's the growths of the city was very low and slow (Chowdhury and Faruqui, 1991). Since 1950, Dhaka has experienced significant but uncontrolled expansion. This growth is characterized by two main features – areal expansion and population explosion. The city is now growing in every direction - horizontally and vertically (Khan, 2000).

The pattern of aerial expansion and the urban form of Dhaka have been dominated largely by the physical configuration of the landscape in and around the city (Islam 1996). The city has been spontaneously developed without any rigid planning proposal. The growing city seems to have exhibited a series of informal and organic spatial patterns. Within this framework, some parts of the city have been deliberately planned as residential areas to provide the citizen with civic facilities. In such planned schemes, land is subdivided into plot and infrastructure is constructed following conscious design by the authority in which land use is defined according to the master plan. In contrast, major part of the city has been developed organically in which land is subdivided through private initiative, roads are laid to serve their need without any approved plan. In process of time, these spontaneously developed organic areas start operating as part of the whole city with continuous adjustments (Khan, Nilufar, 2009). On the other hand, the planned areas, in spite of several controls, have undergone

morphological changes in land use pattern to adapt to the community need with the passage of time. Further, due to the weakness in planning rules and zoning policy, non-residential functions invaded into the planned residential area to meet the demand of the growing population. Authority sometimes amended the rules to accommodate such changes, which in turn affected the character of the planned residential areas. As a result, the planned residential areas have changed into a mixed land use pattern and transformed into an unplanned state in relation to their physical layout (Khan 2008).

Due to various factors, including absence of an urbanization policy or a human settlement policy, urban growth and urban development in Bangladesh is basically Dhaka oriented (Rahman, 2001). Over the past decade Dhaka has had the highest population growth rate of any major city in the world. Natural growth of population and huge migration every year due to many push and pull factors raised the growth rate to about 7 percent. With more than 13 million inhabitants with an area of 1,353 km<sup>2</sup>, it is now the 8<sup>th</sup> largest city of the world and by 2015 it is forecast to be the world's second largest with around 23 million people (Dhaka City State of Environment, 2005). According to the preliminary results of Population and Housing Census 2011 conducted by the Bangladesh Bureau of Statistics, the district of Dhaka has a population density of 8,111 per square kilometers, i.e., it houses 8.3% of the entire population of Bangladesh in only 1% of the national territory.



## 2.2 HOUSING IN THE CITY

High population growth and rural-urban migration intensify the problems of urbanization in Bangladesh, as in all developing countries. For Bangladesh the problem is further aggravated by limited land supply in urban areas, lower land utilization and lack of proper policy and planning of land-use. The ever growing urban population is creating an increasing demand for space. This rapid influx of population to the (capital) city results in sky rocketing land prices and provides the stimulus for construction of tall buildings (Rahman, 2001).

During the period from 1981 to 2000, the greater Dhaka population grew at an average rate of 5.5% from about 3.44 million to 10.0 million. During the same period the built up area increased from 104 sq. km (39% of the city area) to 150 sq. km. (55%). By the year 2015 the expected population of the city is forecasted to be as high as 15.7 million. It is expected that Dhaka will become one of the ten largest cities of the world by the year 2020 with a population as high as 20 million (Rahman 2001). To make provision for accommodation and comfortable living of this large population transformational development of Gazipur, Kaliakoir, Savar, Tongi, Narayanganj, Keraniganj and Purbachal will be required.

Housing conditions of Dhaka City vary greatly between high and low-income groups as well as by area. The gap is obvious between luxurious high income apartments which exist in high-income areas such as Gulshan, Baridhara, Dhanmandi, Uttara areas and poorly constructed temporary housing (Jhupri) with extremely small floor space, very densely located on the lands prone to flood disasters.

People from all socio-economic backgrounds in Dhaka face housing problem of one type or another. While the urban destitute need rehabilitation, the slum dwellers need slum upgrading. The low-income families are in need of low cost flats or plots and the middle and upper income families are complaining that the cost of a decent plot or a decent flat is going beyond their means (Rahman 2001).

### 2.3 EVOLUTION OF THE REAL ESTATE INDUSTRY

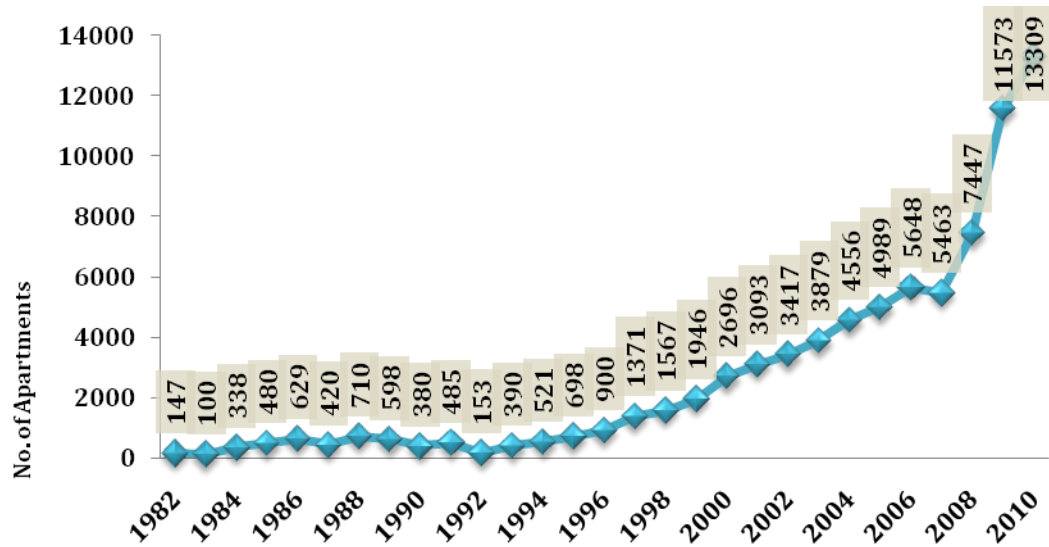
Real Estate business took off in Bangladesh in 1970 with only five registered firms. From the early 1980s the business started to flourish and showed robust growth. By 1988, there were 42 developers in business. At present, more than 1500 companies are active in the real estate sector with 1081 of them registered with REHAB (Seraj, 2012). In the last four decades private developers have supplied more than 100000 units of apartments to the nation and will be supplying 25000 more units in the next three years (Sheltech, 2011).

According to Rahman (2001) and Seraj (2012) the main reasons for the development of real estate business in Dhaka city are:

- i) Rapid increase in the population of the city.
- ii) Scarcity of unoccupied lands in important parts of the city.
- iii) Very high prices of land.
- iv) Hazards involving purchase of lands.
- v) Profit motives of the land owners.
- vi) Increase of remittance inflows in that finance many purchases.
- vii) Re-structuring of households to single family units.
- viii) Standard of security and other services in apartments

## 2.4 TREND OF REAL ESTATE BUSINESS IN THE CITY

The business of real estate had a very slow growth rate in the first decade. The industry grew in a moderate pace since 2006 but between 2008 and 2010 the growth rate was exponential. The following figure self-explains the trend of real estate business in the city (Seraj, 2012).



Sources: Sheltech 2011, Seraj 2012

Figure 1: No. of Apartments Developed Each Year from 1982 to 2010

## 2.5 LIFE CYCLE STAGE OF THE REAL ESTATE INDUSTRY

The life cycle can be used to observe the behavior of many concepts in business; it is best applied to products and industries. Industry Lifecycle is a concept relating to the different stages an industry will go through, from the first product entry to its eventual decline. Liu and Chen mention of five stages in the industry lifecycle. They are:

- (1) Early Phase-Alternative product design and positioning take place establishing the range and boundaries of the industry itself.
- (2) Innovation Phase - Product innovation declines, process innovation begins and a "dominant design" arrive.
- (3) Growth (Cost or Shakeout) Phase - Companies settle on the "dominant design", economies of scale are achieved forcing smaller players to be acquired or exit altogether. Barriers to entry become very high as large-scale consolidation occurs.
- (4) Maturity Phase - Growth is no longer the main focus, market share and cash flow become the primary goals of the companies left in the space.
- (5) Decline Phase - Revenues decline; the industry as a whole may be supplanted by a new one (Liu, Chen, 2011).

The real estate industry of Bangladesh entered Innovation Phase in the first half of last decade after growing over Early Phase in almost two and a half decade since its inception in 1970. Immense growth opportunity lies ahead of this industry that can only be achieved with adequate legislative and regulatory support of the government.

### 3 FINDINGS OF THE STUDY

In this chapter, findings of the study against the specific objectives are discussed in detail.

#### 3.1 CONTRIBUTION OF THE REAL ESTATE SECTOR TO THE NATIONAL GDP

Gross Domestic Product (GDP) is a measure of all goods and services produced in the economy. The Real Estate sector contributes directly and significantly to overall production activity and thus to GDP. The two line items in GDP directly associated with the Real Estate sector are residential fixed investment and housing service. Residential fixed investment consists of value-put-in-place of new housing units, brokers' commissions on the sale of existing residential properties, and expenditures related to improving and additions to existing units. Housing service is a component of personal consumption expenditures, purchased by residents in Bangladesh, usually in the form of rent for tenants or as rental equivalence for homeowners. It is important to note that this approach measures the value to the homeowner of the daily consumption of the flow-of-services provided by a home (a place to fix meals, relax, entertain, garden, etc.) and not the value of an investment in a long-lived asset (home). Rental equivalence or implicit rent is the amount of rent that homeowners could charge if their homes were leased to others instead of living in the homes themselves. Because implicit rent is not a market transaction, such as the payment to a landlord from a renter, it is estimated by measuring the change in market rents for rental housing units with similar characteristics and in similar locations as the homeowner units.

All economic activity produces a “Keynesian” multiplier effect. A home purchase usually results in further spending in other sectors of the economy (landscaping, appliances, and so on). The income earned by the landscapers is re-circulated into the economy as they spend, generating another round of income and purchases. The degree of multiplier depends on the degree of monetary policy accommodation and the “crowding out” effect.

### 3.1.1 GDP CONTRIBUTION TREND ANALYSIS

The sector wise share of Real Estate, Renting and Business Service sector to the national GDP of the country is as follows:

Year	GDP Contribution (%)
2001-02	8.63
2002-03	8.48
2003-04	8.3
2004-05	8.12
2005-06	7.87
2006-07	7.64
2007-08	7.49
2008-09	7.34
2009-10	7.2

Data Source: Statistical yearbook of Bangladesh, 2010

Table 1: Share of Real Estate, renting and business services to the national GDP

The figure below shows the trend of GDP contributions of this sector.

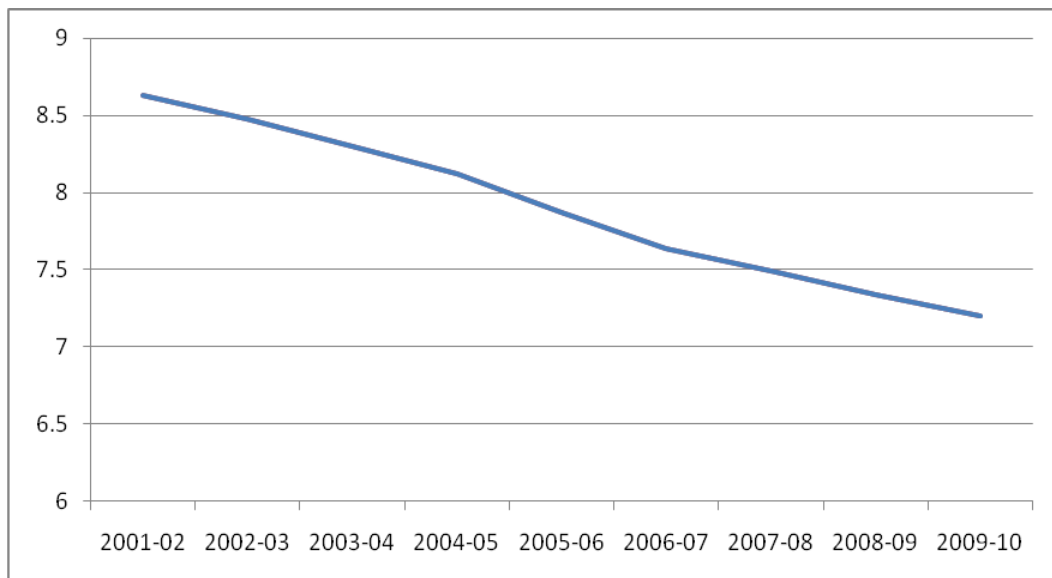


Figure 2: Trend of sector wise share of Real Estate, renting and business services

From the above figure, it is seen that sector wise share of Real Estate, Renting and Business service sector has a downward trend. But that does not show the real picture. To better understand the growth scenario, a comparison is made between overall GDP growth and GDP growth of the Real estate, renting and business service sector.

### 3.1.2 COMPARISON WITH OVERALL GDP GROWTH

The following table shows the comparison between overall GDP growth and growth of Real estate, renting and business services.

<b>Year</b>	<b>Size of GDP (In Crore Tk)</b>	<b>Overall GDP Growth (%)</b>	<b>Real Estate, renting and business services (% of GDP)</b>	<b>Real Estate, renting and business services (In Crore Tk)</b>	<b>Real Estate, renting and business services Growth (%)</b>
<b>2001-02</b>	225,261	4.42	8.63	19,440	--
<b>2002-03</b>	237,101	5.26	8.48	20,106	3.43
<b>2003-04</b>	251,968	6.27	8.30	20,913	4.01
<b>2004-05</b>	266,974	5.96	8.12	21,678	3.66
<b>2005-06</b>	284,673	6.63	7.87	22,404	3.35
<b>2006-07</b>	302,971	6.43	7.64	23,147	3.32
<b>2007-08</b>	321,726	6.19	7.49	24,097	4.11
<b>2008-09</b>	340,197	5.74	7.34	24,970	3.62
<b>2009-10</b>	360,845	6.07	7.20	25,981	4.05

Table 2: Comparison between overall GDP growth and growth of Real estate, renting and business services

- ▶ Basically, the total volume of Real Estate, Renting and Business service sector increased every year, as seen from the last column, a positive growth every year.
- ▶ But, compared to overall GDP growth, this sector expanded in a slower rate. That is why in overall GDP the contribution of this sector has a downward trend.

### 3.2 CONTRIBUTION OF THE REAL ESTATE SECTOR IN PROVIDING SHELTER, SOLVING HOUSING NEEDS OF URBAN POPULATION

Urban Housing Markets are increasingly significant in shaping the economic and social well-being of many citizens. A substantial variation exists across neighborhoods in the type of housing available, the quality of public services, the level of tax burdens, and the quality of life generally. Consequently, households confront important tradeoffs between different types of housing, neighborhood characteristics, and accessibility to place of work. Since housing expenditures are a large component of every household's budget, the availability of housing and its price assume considerable importance. Moreover, housing markets play a central role in the process of metropolitan development, both affecting and reflecting other forces at work in this sphere. Urban development patterns, in turn, are crucial to our future welfare in many ways (Straszheim, 1975).

High population growth and rural-urban migration intensify the problems of urbanization in Bangladesh, as in all developing countries. For Bangladesh the problem is further aggravated by limited land supply in urban areas, lower land utilization and lack of proper policy and planning of land-use (Rahman, 2001). Decline in household size combined with increase in population has pushed up housing demand. Presently families in urban area spend a high share of their income on housing but still obtain low-quality accommodations.

With a rising population and increasing housing demand, apartment culture has grown up in Dhaka sharply. Apartments were first introduced by the formal private developers in early 80s to the housing history of Dhaka. It first appeared in Dhaka near Central Road and subsequently the city experienced a boom in apartment development in all residential areas including Paribagh, Maghbazar, Siddeshwari, Shantinagar, Dhanmondi, Mirpur, Banani, old DOHS, new DOHS, Gulshan and Baridhara, to name just a few (Kamruzzaman).

Existing housing supply has been characterized by 'a critical imbalance' between housing cost to household income ratio that has been known to affect homeownership as well as rental housing. According to a 2007 survey conducted by the Consumers



Association of Bangladesh (CAB), house rent in Dhaka increased by 250 percent between 1990-2007 despite presence of rent control laws and courts (Kamruzzaman).

It must be emphasized that the economic costs of any failure in the housing markets can be enormous and severely harmful to prospects for economic growth. Inefficiencies in the housing markets can generate not only an inelastic supply of new dwellings but also insufficient market transactions with respect to housing demand and any future run-up of housing prices, which can further develop into asset bubbles. Such problems in the housing markets can easily affect the rest of the economy. In particular, there are three broad consequences of housing market failures (Pidal, Lampe and Rosés, 2011). First, if housing transactions absorb too much capital because of overvalued house prices, then the growing demand for capital from the housing market can generate a ‘crowding-out effect’ that leads to increasing overall interest rates and absorbed savings (i.e., expanding foreign debt), which may reduce the economy’s stock of productive capital (Weale, 2007). Second, the scarcity of housing, the low liquidity of housing assets and/or their excessive price can delay needed structural changes by imposing severe restrictions on labor migration (Muellbauer and Murphy, 2008). Finally, scholars have widely recognized that collapses of housing bubbles are commonly associated with significant disruptions to the domestic financial system and the real economy (Honohan and Klingebiel, 2003).

### 3.3 TOTAL VOLUME OF THE REAL ESTATE SECTOR

At present, more than 1500 companies are active in the real estate sector with 1081 of them registered with REHAB (Seraj, 2012). In the last four decades private developers have supplied more than 100000 units of apartments to the nation and will be supplying 25000 more units in the next three years (Sheltech, 2011).

To measure the total volume of the real estate sector, data from the operating entities of this sector is a must. Once again, due to the lack of adequate primary data the total volume of this sector could not be calculated directly and accurately. But, in the following table we can see the volumes of this sector from 2001-2002 to 2009-2010. These volumes are calculated based on the overall GDP of the country in those years and the corresponding GDP contribution of the sector.

<b>Year</b>	<b>Size of GDP (In Crore Tk)</b>	<b>Real Estate, renting and business services (% of GDP)</b>	<b>Real Estate, renting and business services (In Crore Tk)</b>
<b>2001-02</b>	225,261	8.63	19,440
<b>2002-03</b>	237,101	8.48	20,106
<b>2003-04</b>	251,968	8.30	20,913
<b>2004-05</b>	266,974	8.12	21,678
<b>2005-06</b>	284,673	7.87	22,404
<b>2006-07</b>	302,971	7.64	23,147
<b>2007-08</b>	321,726	7.49	24,097
<b>2008-09</b>	340,197	7.34	24,970
<b>2009-10</b>	360,845	7.20	25,981

Table 3: Growth and volume of the Real estate, renting and business services sector

If we extrapolate the trend we find the volume of the sector is BDT 26575.74 crore in 2010-2011. It must be mentioned here that this is a crude measure based on the secondary data.

### 3.4 CONTRIBUTION OF REAL ESTATE SECTOR IN DEVELOPMENT OF DIFFERENT LINKAGE INDUSTRIES

In this section, the yearly production data of the prominent linkage industries are analyzed to see the contribution of the Real Estate sector over these industries.

#### 3.4.1 GLASS AND GLASS PRODUCTS

The yearly production data on Glass and Glass products of Bangladesh as under:

Year	Quantity (Gross)	Value (in 000 TK )
1995-96	1149169	261489
1996-97	1535922	329608
1997-98	1767787	362777
1998-99	2066422	404739
1999-00	1853432	424326
2000-01	2730440	465644
2001-02	2673432	522399
2002-03	3689328	738924
2003-04	3700937	919207
2004-05	3919435	973476
2005-06	4106179	956975
2006-07	4066389	947702
2007-08	4006812	939401
2008-09	4009630	940076
2009-10	3857904	

Source: Statistical yearbook of Bangladesh

Table 4: Yearly production data on Glass and Glass products

Now, to see the trend of production quantity, the following graphical representation can be used:

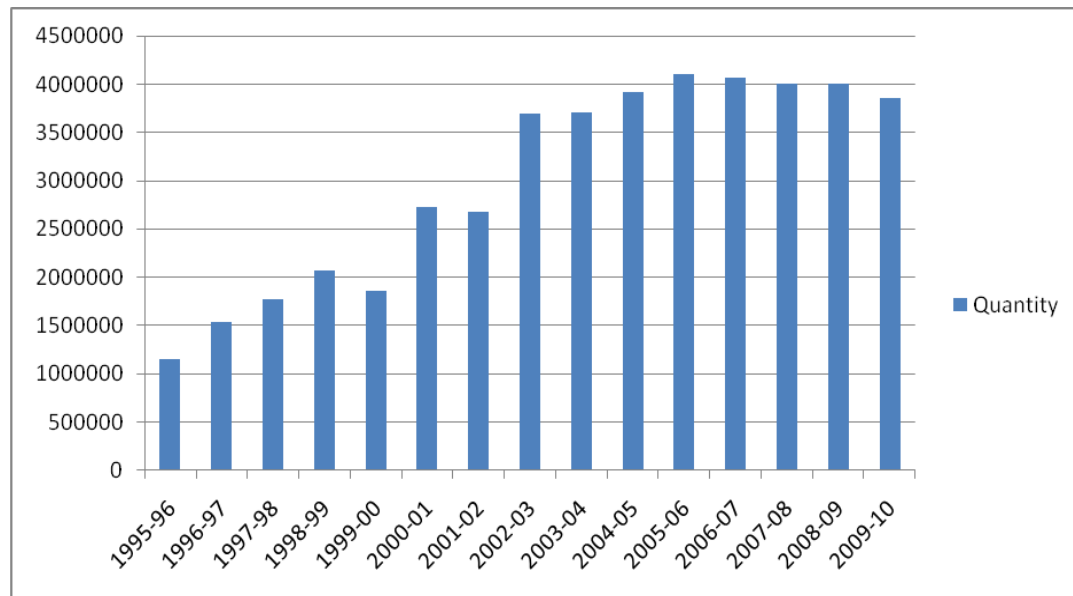


Figure 3: Production-quantity of Glass and Glass Products

From the figure, it is clear that the production quantity of Glass and Glass products certainly have an upward trend. But there is some remarkable variation in some year's value. From the above figure, we can see that there is a remarkable increase in the year 2000-01 from the previous year. Also, we know that this is the same year when the real estate business was increasing rapidly as a result the calculation of GDP share considered real estate, renting and business service as a separate sector from 2001-02. So, we can comment that production of glass and glass products increased as a result of increasing demand of those in house constructions by real estate. So, real estate seems to have a positive contribution on the production of Glass and Glass products.

After 2001-02, the production, the production increased by a large amount. Afterwards, the production of glass and glass products seems to maintain almost an equal level due to stable condition of real estate business. But we can see a decrease in Production in 2009-10; this can be due to the current conditions prevailing now and then was not very favorable to real estate business. As a result, decrease in production occurs.

So, we can conclude that real estate is a contributing factor in the production of Glass and Glass Products.

### 3.4.2 BRICKS

The yearly production data on Bricks industry of Bangladesh as under:

<b>Year</b>	<b>Quantity (000 No)</b>	<b>Value(in 000 TK )</b>
<b>1995-96</b>	46701	146731
<b>1996-97</b>	45628	136745
<b>1997-98</b>	56786	154561
<b>1998-99</b>	63841	17603
<b>1999-00</b>	601831	182277
<b>2000-01</b>		
<b>2001-02</b>	67948	186345
<b>2002-03</b>	70114	200222
<b>2003-04</b>	80778	221624
<b>2004-05</b>	90588	248539
<b>2005-06</b>	97212	721354
<b>2006-07</b>	98345	752999
<b>2007-08</b>	100836	266608
<b>2008-09</b>	102336	307008
<b>2009-10</b>	114219	

Source: Statistical yearbook of Bangladesh

Table 5: Yearly production data on Brick

Now if we want to see the trend of production quantity, we can use the following graphical representation:

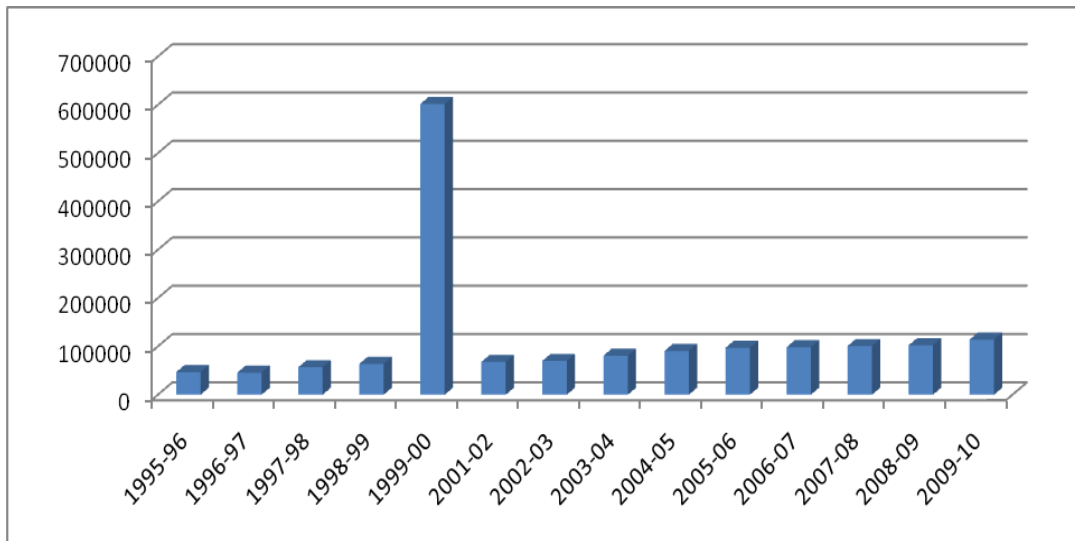


Figure 4: Production of Bricks over years

From the above graph we can see that in the production of Bricks increased by a remarkable amount in the year 1999-00 and 2000-01. As we do not have data for 2000-01 separately, it is possible that we have the production quantity for both the years in the data set. Apart from this extreme observation, we can see all other production quantities follow an upward trend. This may be due to the contribution of Real Estate sector.

### 3.4.3 CEMENT

The yearly production data on Cement industry of Bangladesh as under:

<b>Year</b>	<b>Quantity (M.Ton)</b>	<b>Value(in 000 TK )</b>
<b>1995-96</b>	425695	1904830
<b>1996-97</b>	610508	4554395
<b>1997-98</b>	542820	2513053
<b>1998-99</b>	1514000	3604064
<b>1999-00</b>	186004	7046374
<b>2000-01</b>	234190	98139000
<b>2001-02</b>	2514302	10107327
<b>2002-03</b>	2564693	9815197
<b>2003-04</b>	2694867	10443191
<b>2004-05</b>	2942692	11977885
<b>2005-06</b>	3210761	14967718
<b>2006-07</b>	3438964	18443250
<b>2007-08</b>	3922428	24419076
<b>2008-09</b>	2852587	17686049
<b>2009-10</b>	2877203	

Source: Statistical yearbook of Bangladesh

Table 6: Production data on Cement industry

Now to see the trend of production quantity, the following graphical representation can be observed:

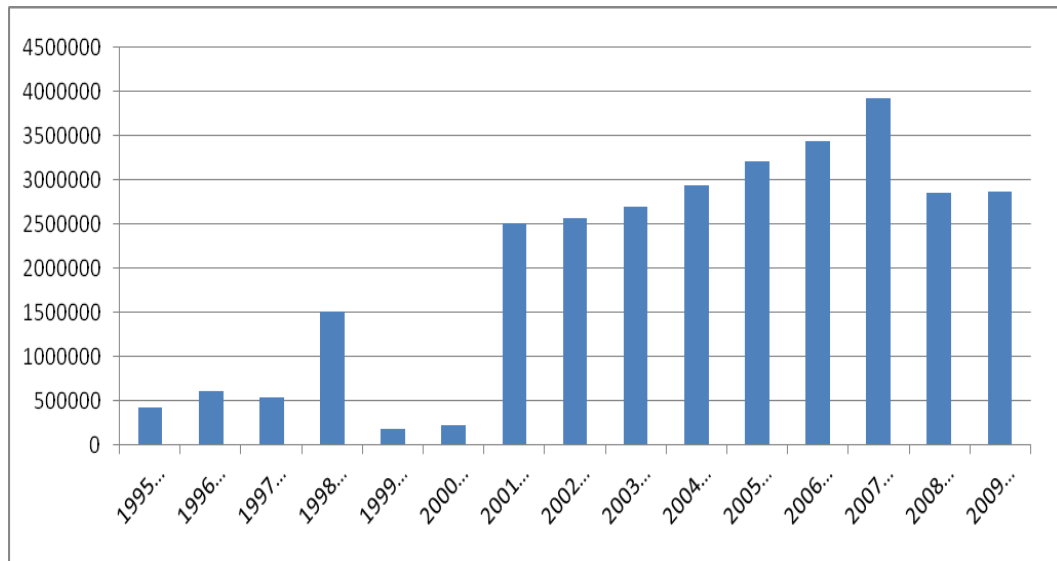


Figure 5: Production of Cement over years

Here, also we can see an exceptional decrease in production in the year 1999-00 and 2000-01. This may be caused due to any institutional and managerial conditions that the cement industries faced which are unknown to us. To make any comment about this pattern, we need to study about the prevailing conditions in those two years which is not our aim in the study. So, we leave that two extreme observations and interpret the situation of the next years (2002-03 to 2009-10).

We can see the production of cement is increasing up to year 2007-08, and afterwards it is decreasing. In the increase of production of cement, emerging real estate business may have a significant effect. Also when production began to decrease it may be because of the adverse conditions that real estate facing from 2008 that decreased the demand of cement in the construction of buildings and as a result production also decreased.



### 3.4.4 CERAMIC INDUSTRY

The yearly production data on Ceramic industry of Bangladesh as under:

<b>Year</b>	<b>Quantity (000 doz)</b>	<b>Value(in 000 TK )</b>
<b>1995-96</b>	2876	918801
<b>1996-97</b>	2955	1023919
<b>1997-98</b>	2006	1457456
<b>1998-99</b>	2726	943200
<b>1999-00</b>	2643	979714
<b>2000-01</b>	2990	1064480
<b>2001-02</b>	3628	1625420
<b>2002-03</b>	4051	1815934
<b>2003-04</b>	4604	2033344
<b>2004-05</b>	5906	2608369
<b>2005-06</b>	6690	2364756
<b>2006-07</b>	7197	2543968
<b>2007-08</b>	7981	2821094
<b>2008-09</b>	8432	2962349
<b>2009-10</b>	8935	

Source: Statistical yearbook of Bangladesh

Table 7: Production data on Ceramic industry

Now to see the trend of production quantity, the following graphical representation can be observed:

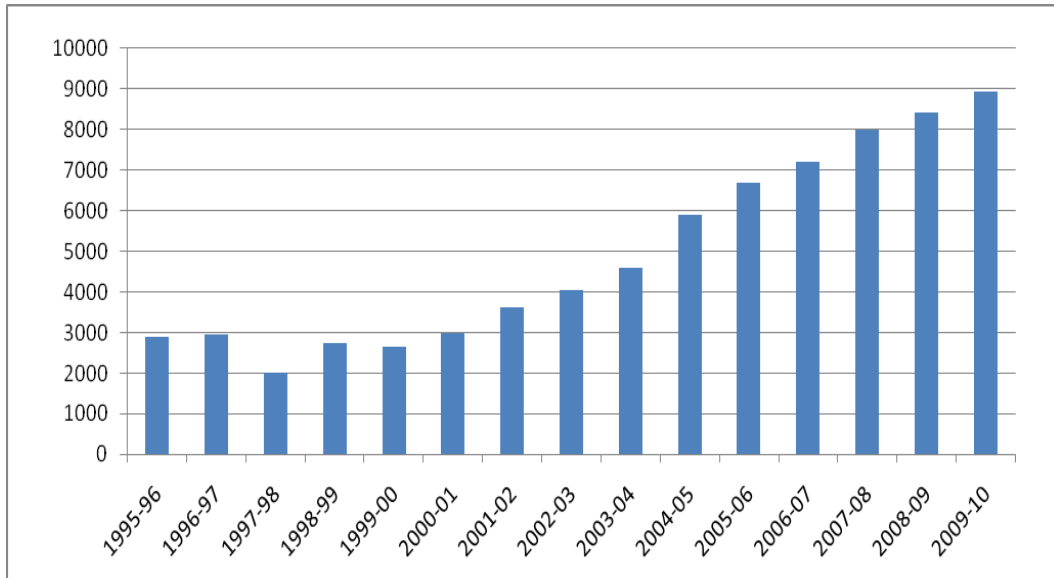


Figure 6: Production of Ceramic products

We can see from the bar chart that production quantity of ceramic maintained a level before 2001-02. After 2001-02, there are remarkable increases in the following years. And the production in the final year (2009-10) is very much higher than the starting year (1995-96). This may be the result of increasing demand of ceramics for the use of Real Estate sector. So, Real Estate may be a contributing factor in increasing the production of ceramics among others.

### 3.4.5 IRON & STEEL

The yearly production data on Iron and Steel industry of Bangladesh as under:

<b>Year</b>	<b>Quantity (M.Ton)</b>	<b>Value(in 000 TK )</b>
<b>1995-96</b>	32540	599702
<b>1996-97</b>	27474	56232
<b>1997-98</b>	22619	416225
<b>1998-99</b>	9160	127480
<b>1999-00</b>	18531	42432
<b>2000-01</b>	63948	189309
<b>2001-02</b>	67948	186345
<b>2002-03</b>	Nil	Nil
<b>2003-04</b>	Nil	Nil
<b>2004-05</b>	Nil	Nil
<b>2005-06</b>	Nil	Nil
<b>2006-07</b>	Nil	Nil
<b>2007-08</b>	Nil	Nil
<b>2008-09</b>	Nil	Nil
<b>2009-10</b>	Nil	Nil

Source: Statistical yearbook of Bangladesh

Table 8: Production data on Iron and Steel industry

Now to see the trend of production quantity, the following graphical representation can be observed:

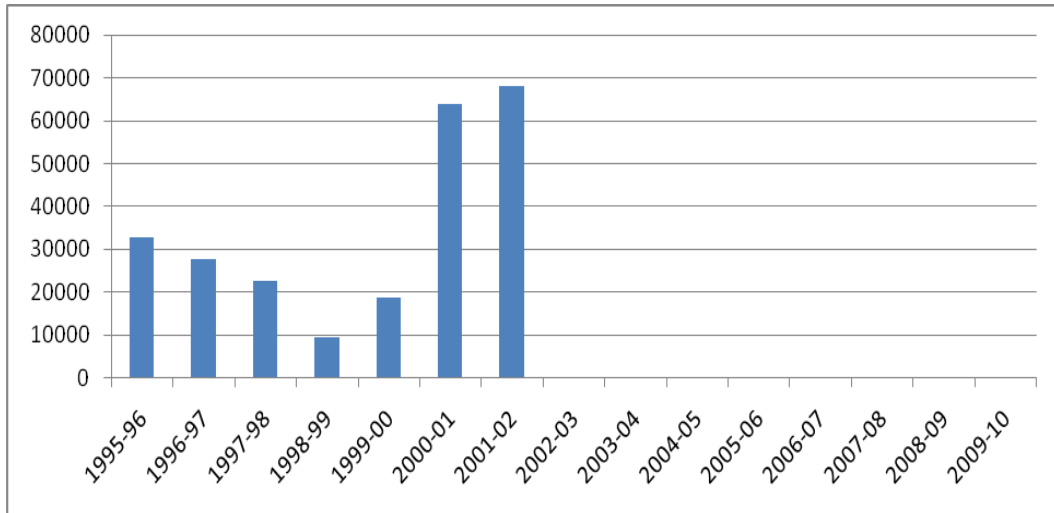


Figure 7: Production of Iron & Steel

From the above chart we can see that production of Iron and Steel drastically increases in the years 2000-01 and 2001-02. This may be for the contribution of real estate sector. But afterwards, the production went Nil. There could be several reasons behind this which are not our concern in this study. So, we leave this part as it is without any comments unless further studies are conducted to understand this unusual pattern.

### 3.4.6 RE-ROLLING

The yearly production data on Re-rolling industry of Bangladesh as under:

Year	Quantity (M.Ton)	Value(in 000 TK )
1995-96	128925	1924808
1996-97	140327	2235092
1997-98	161136	3612633
1998-99	156213	1806554
1999-00	150256	1859444
2000-01	155400	2291356
2001-02	162773	2512401
2002-03	168982	2815902
2003-04	174803	4415278
2004-05	195093	6445622
2005-06	213061	7421386
2006-07	Nil	Nil
2007-08	Nil	Nil
2008-09	Nil	Nil
2009-10	Nil	Nil

Source: Statistical yearbook of Bangladesh

Table 9: Production data on Re-rolling industry

Now to see the trend of production quantity, the following graphical representation can be observed:

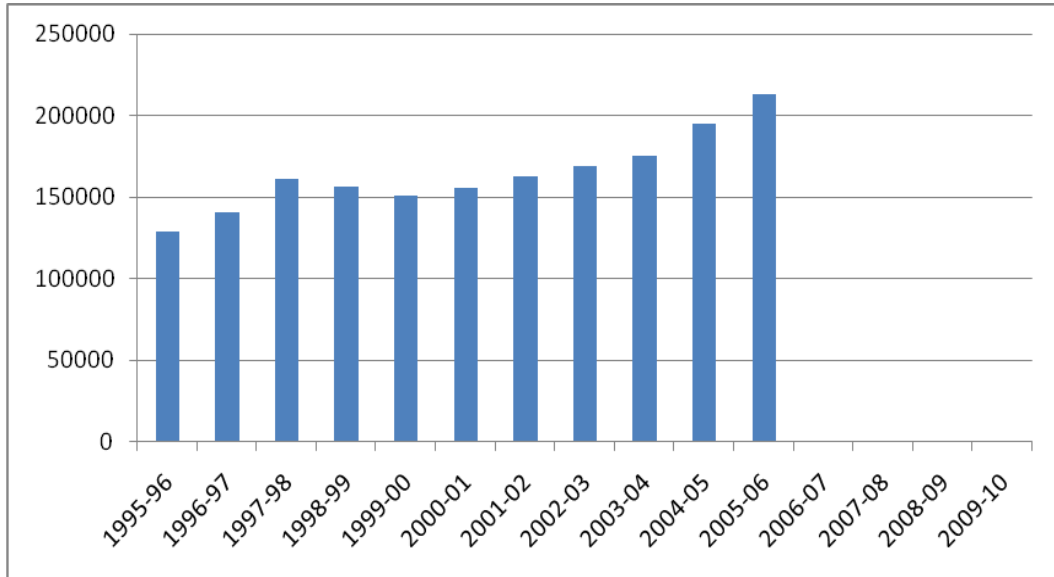


Figure 8: Production data on Re-rolling industry

From the above Bar chart we can see that the production of Re-Rolling follows an increasing pattern. This may be for the contribution of real estate sector. But afterwards, the production went Nil. There could be several reasons behind this which are not our concern in this study. So, we leave this part as it is without any comments unless further studies are conducted to understand this unusual pattern.

### 3.4.7 PLUMBING EQUIPMENTS

The yearly production data on Plumbing equipments of Bangladesh as under:

<b>Year</b>	<b>Quantity (Doz.)</b>	<b>Value(in 000 TK )</b>
1995-96	121133	353256
1996-97	182349	309872
1997-98	221323	343026
1998-99	219879	308248
1999-00	251341	398809
2000-01	294499	396320
2001-02	298151	295770
2002-03	318065	298407
2003-04	329484	309120
2004-05	383808	394558
2005-06	419150	430889
2006-07	286749	188394
2007-08	438643	456662
2008-09	469944	365158
2009-10	277447	

Source: Statistical yearbook of Bangladesh

Table 10: Production data on Plumbing equipments

Now to see the trend of production quantity, the following graphical representation can be observed:

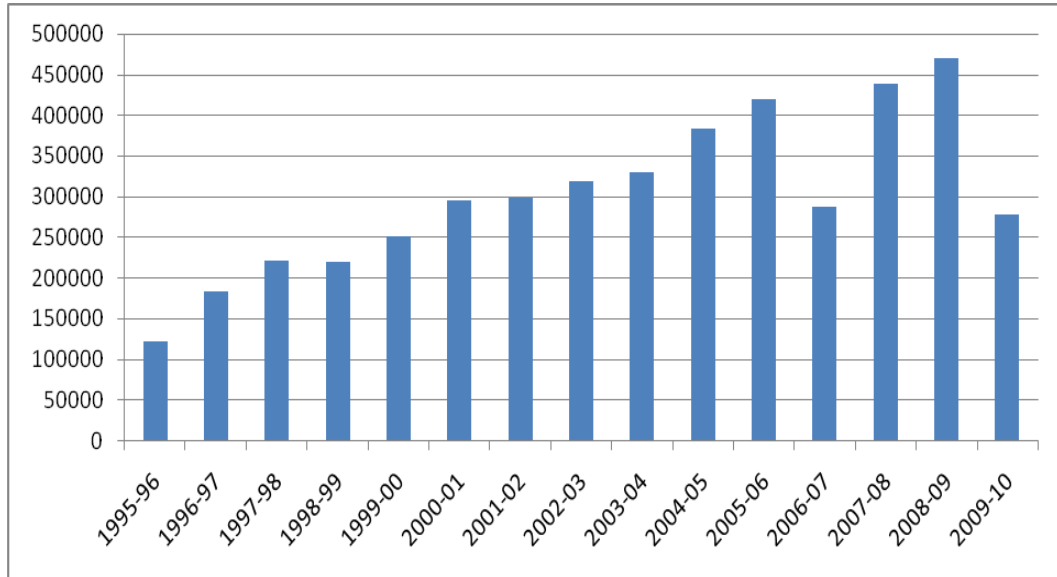


Figure 9: Production data on Plumbing equipments

We can see from the bar chart above that there is a decrease in production in the year 2006-07 which can be viewed as an effect of the period when the Interim Govt. was in power and Real Estate business as well as other business was suffering from lack of investment and other economic conditions prevailing then. Again, the production faces a decrease in the year 2009-10, which may be viewed as the current conditions in which Real Estate business is hampered due to lack of Govt. support and cooperation.



## 3.5 FINDINGS OF THE CONSUMER SURVEY

Findings of the consumer survey are described in the section below.

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### 3.5.1 SOURCES OF DATA

The primary sources of data for this survey were all the existing and potential clientele within Dhaka city.

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### 3.5.2 AREA OF DATA COLLECTION

For efficient data collection, the thanas of Dhaka City were subdivided into seven different zones. Such as,

Zone-1: Kotwali, Lalbagh, Shutrapur

Zone-2: Adabor, Dhanmondi, Mohammadpur, New Market

Zone-3: Darus Salam, Kafrul, Mirpur, Pallabi, Shah Ali

Zone-4: Khilgaon, Motijheel, Paltan, Ramna, Shahbagh, Tejgaon

Zone-5: Badda, Cantonment, Gulshan, Banani, Baridhara

Zone-6: Airport, Khilkheth, Uttara

Zone-7: Others

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### 3.5.3 SAMPLE DESIGN

**SAMPLING METHOD:** In this survey, non-probabilistic sampling methods were selected because the complete sampling frame for the target population was not available which was necessary to apply the usual probabilistic sampling techniques. Besides, limited time and budget also guided the researchers to go for non-probabilistic methods.

To ensure representativeness, the RAs were sent to the different zones defined above at different dates to collect data. Within a zone, the RAs randomly approached potential sampling elements and collected responses from those sampling units who have willingly participated in the survey. Moreover, the sample size was large enough, i.e. 676, to ensure representativeness.

**SAMPLING FRAME:** Several sampling frames based on profession and income level were used.

Basis	Sample frame
Profession (Govt./ Semi-govt./ Private)	Doctor, Engineer, Banker, Teacher, Businessman, Lawyer, Service holder, and Others
Income Level (Tk./ Month)	30,000 or below, 30,000-45,000, 45,000-60,000, 60,000-75,000, 75,000 or above

**SAMPLING ELEMENT:** Individual households from existing and potential clients

**SAMPLING UNIT:** Individuals from existing and potential clients

**SAMPLE SIZE:** 676, which is sufficiently large for this sort of surveys

**CHANNEL OF APPROACH:** Both physical survey and online methods

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#### 3.5.4 DATA COLLECTION

A detail structured questionnaire with open-ended as well as some closed questions has been developed and used to collect data.

For the data collection process, 42 students from the graduate students of IBA and the Department of Statistics, Biostatistics & Informatics, University of Dhaka were selected as Research Assistants (RA). They were trained for two days so that they can collect data uniformly. Training covered making the initial contact with the respondents, asking the questions, probing, recording the answers, and terminating the interview etc.

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#### 3.5.5 DATA ANALYSIS

Quantitative analysis was done using statistical and mathematical tools such as Statistical Package for Social Science (SPSS) and MS Excel. Useful and reliable models such as Univariate Analysis, Bivariate Analysis, Multivariate techniques were developed to analyze the data.

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### 3.5.6 QUALITY CONTROL

Quality control of field workers was done to see if the field procedures were being properly implemented. Two consultants were responsible for supervising the quality issues. The filled questionnaires were examined to make sure all appropriate questions were completed, unsatisfactory or incomplete answers were not accepted, and the writing was legible. Attempts were made to ensure that the research assistants were strictly following the sampling plan. The supervising consultants kept daily records of the number of completed interviews for each interviewer to control the quality related problems.

### 3.5.7 PROFILE INFORMATION OF ALL THE RESPONDENTS

In this survey, data were collected from 676 respondents. There were 8 different sampling frames based on occupation of the respondents and 5 different sampling frames based on monthly personal income. This section summarizes the profile information of all the respondents.

Age of the respondents:

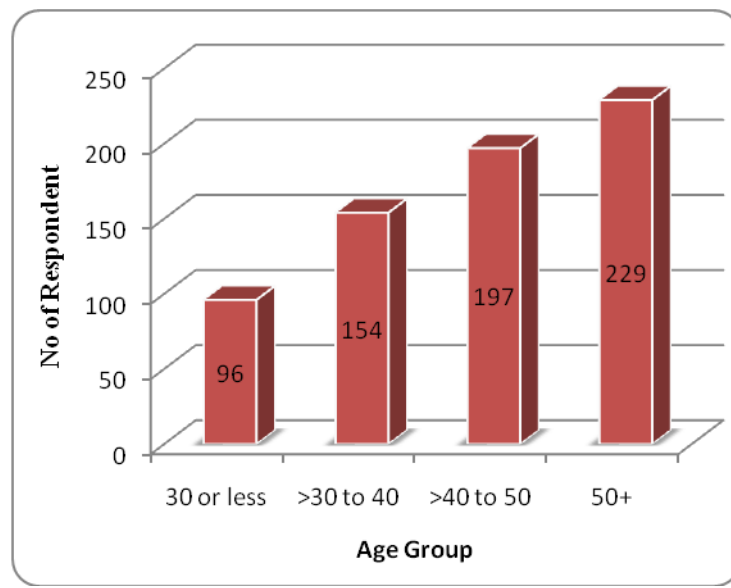


Figure 10: Age of the respondents

Gender of the respondents:

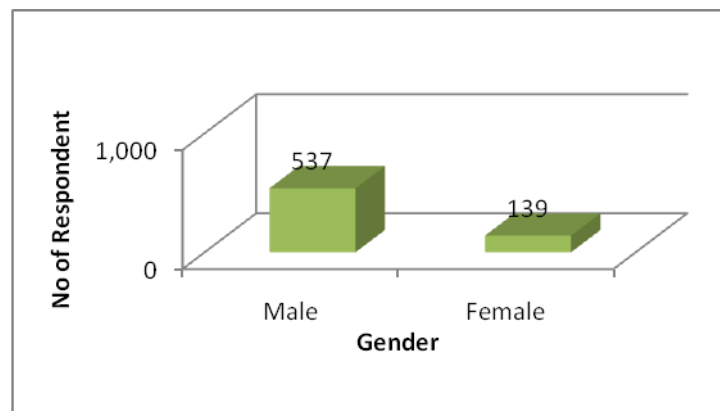


Figure 11: Gender of the respondents

Education of the respondents:

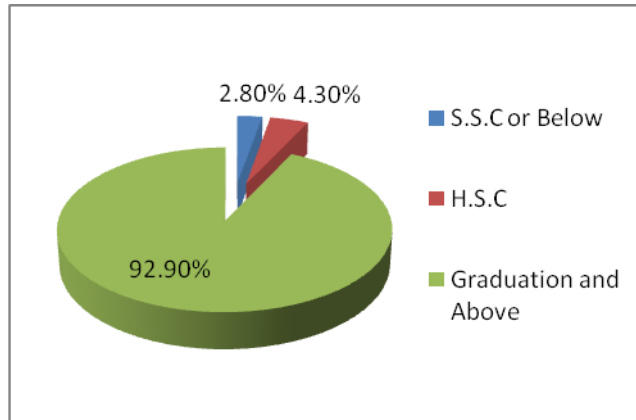


Figure 12: Education of the respondents

Area of residence of the respondents:

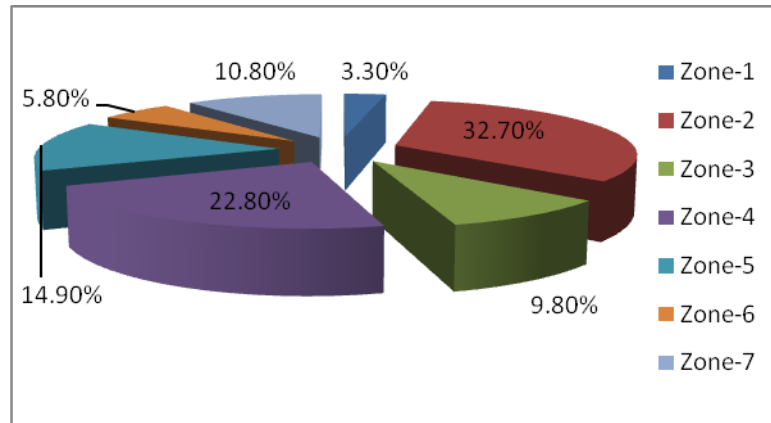


Figure 13: Area of residence of the respondents

Occupation of the respondents:

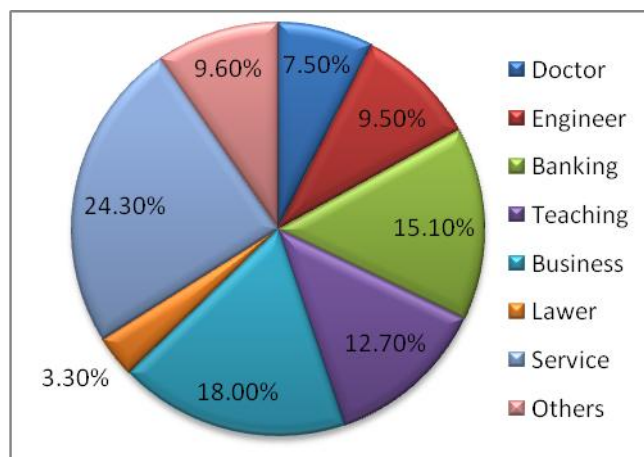


Figure 14: Occupation of the respondents

Some basic information regarding the respondents is summarized below:

- ▶ Average monthly personal income of the respondents: BDT 51,454.55
- ▶ Average monthly family income of the respondents: BDT 96,460.67
- ▶ Average family size of the respondents: 4.18
- ▶ 436 of the respondents have either a flat or a house or a plot in Dhaka city.
- ▶ Among these 436 respondents, 59 stated that a portion of their total investment for the flat or house or plot was covered by foreign remittance from their family members.
- ▶ Foreign remittance covered around 31% of the total investment of the respondents who have used foreign remittance as a source of fund.
- ▶ Amount of remittance used to purchase a flat or house or plot ranges from BDT 20,000 to BDT 2,00,00,000

### 3.5.8 PROFILE INFORMATION OF THE POTENTIAL BUYERS

Not all the respondents are potential buyers. Those who are willing to purchase a flat or build a home in upcoming 3 or 5 or 10 years are considered as potential buyers. This section summarizes the profile information of the potential buyers.

#### 3.5.8.1 PROFILE OF BUYERS WHO INTEND TO BUILD HOUSES

- ▶ 286 of the respondents want to build a home in upcoming 3 or 5 or 10 years
- ▶ Average monthly family income: BDT 95,441.18
- ▶ On an average, respondents plan to build their houses on 4.6 kathas of land

Age of the buyers who intend to build home:

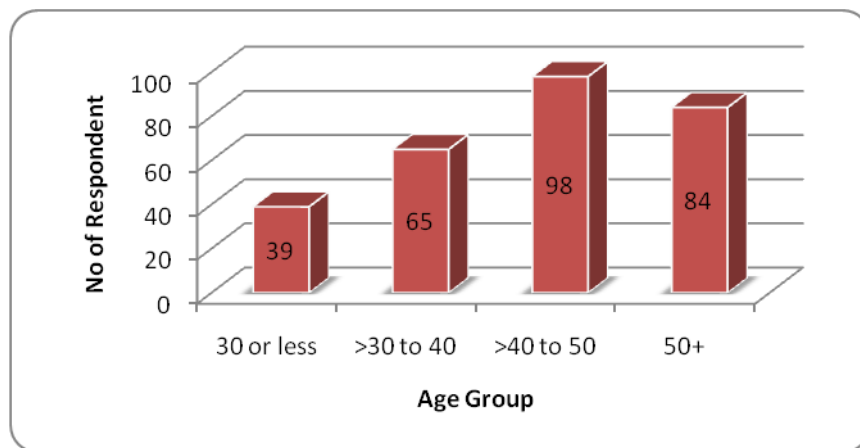


Figure 15: Age of the buyers who intend to build home

Education of the buyers who intend to build home:

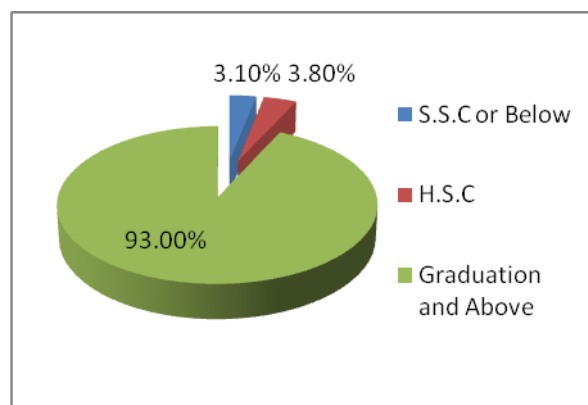


Figure 16: Education of the buyers who intend to build home

Area of residence of the buyers who intend to build home:

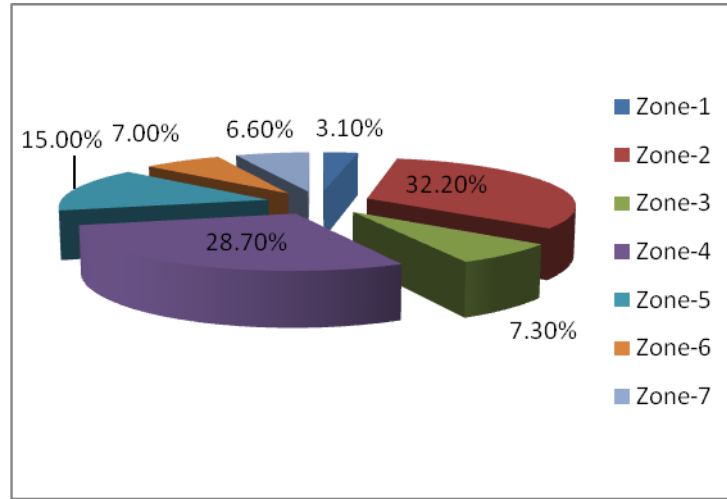


Figure 17: Area of residence of the buyers who intend to build home

Occupation of the buyers who intend to build home:

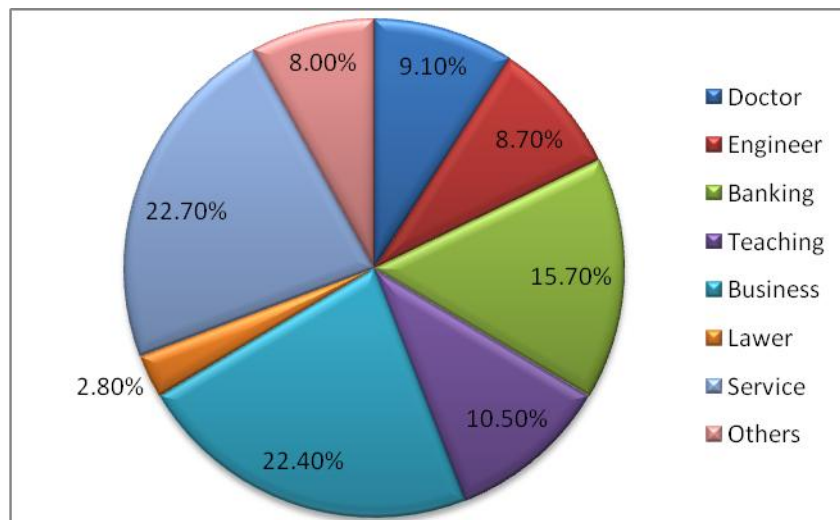


Figure 18: Occupation of the buyers who intend to build home



### 3.5.8.2 PROFILE OF BUYERS WHO INTEND TO PURCHASE FLATS

- ▶ 385 of the respondents want to purchase a flat in upcoming 3 or 5 or 10 years
- ▶ Average monthly family income: BDT 97,300
- ▶ On an average, the respondents want to purchase 1,786 square feet flat

Age of the buyers who intend to purchase flat:

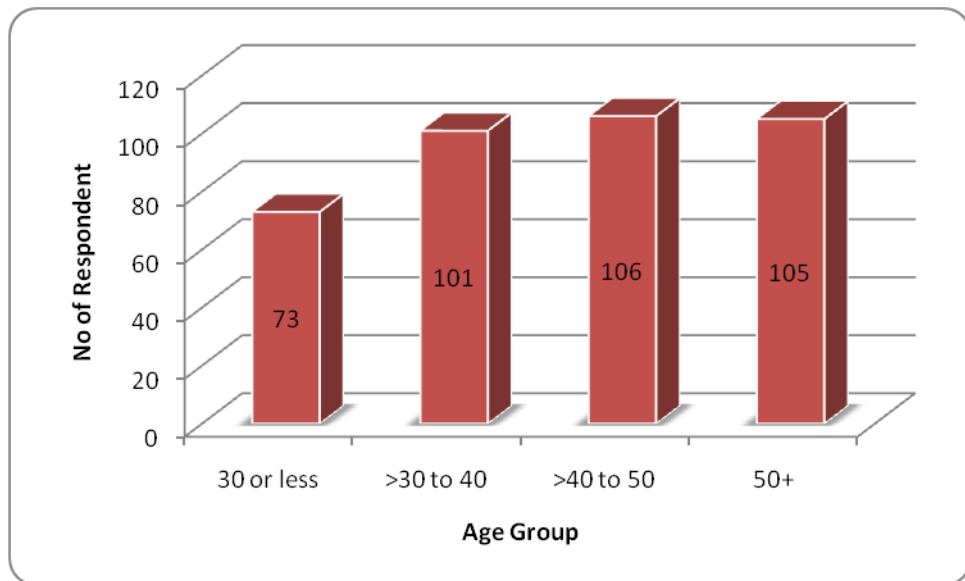


Figure 19: Age of the buyers who intend to purchase flat

Education of the buyers who intend to purchase flat:

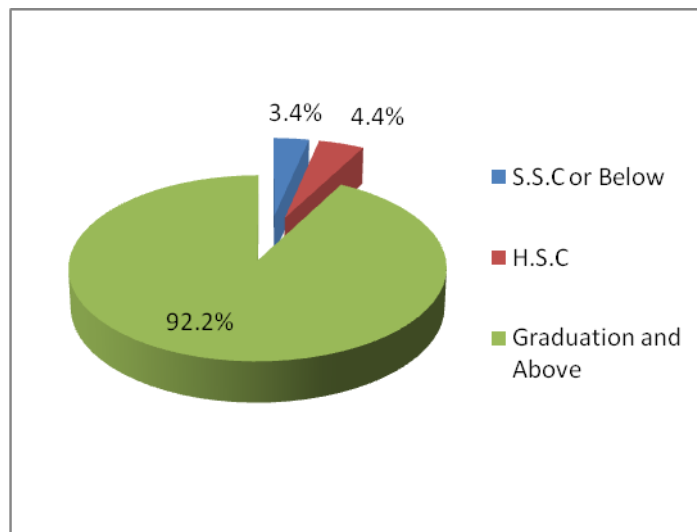


Figure 20: Education of the buyers who intend to purchase flat

Area of the buyers who intend to purchase flat:

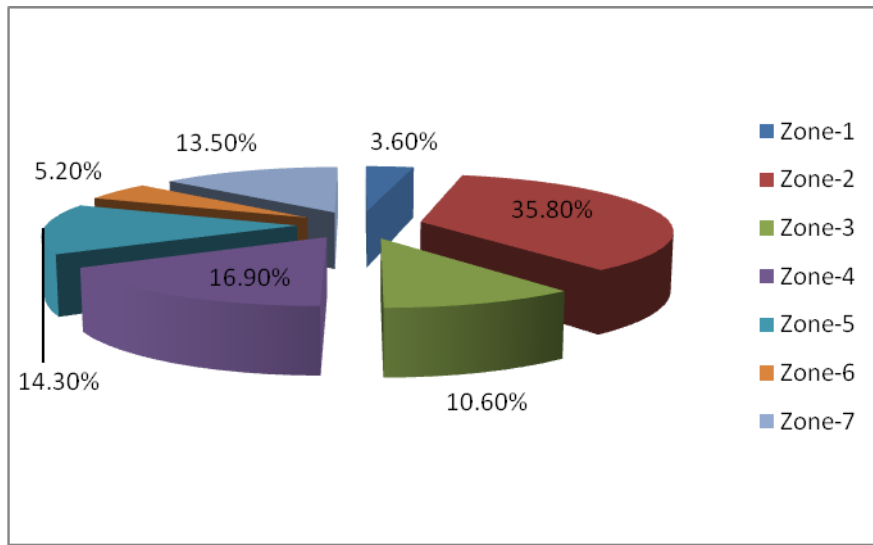


Figure 21: Area of the buyers who intend to purchase flat

Occupation of the buyers who intend to purchase flat:

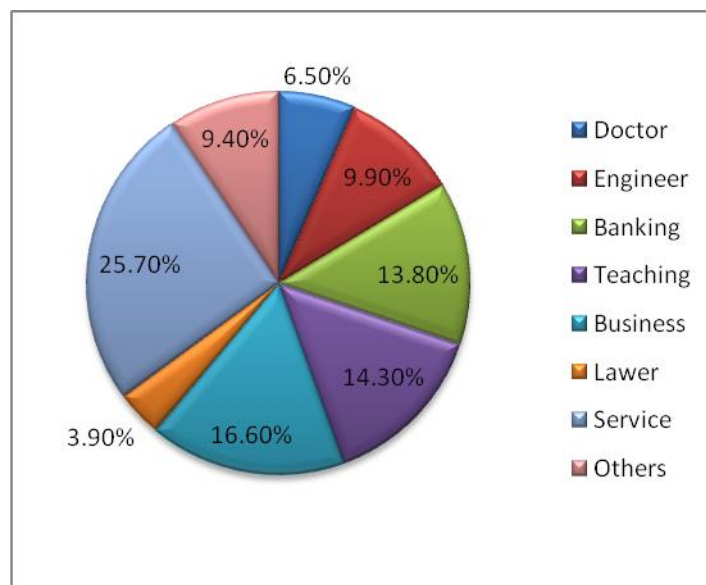


Figure 22: Occupation of the buyers who intend to purchase flat

### 3.5.9 BUYER BEHAVIOR

#### KEY ISSUES:

- ▶ People are more interested to buy flats than build their own houses
- ▶ There is no significant difference in opinion of the respondents based on gender.
- ▶ People who already own a house or flat are still very willing to buy another property.

#### 3.5.9.1 BUYERS WHO INTEND TO BUILD HOME

- ▶ 43% of all the respondents plan to build their own houses in upcoming 3 or 5 or 10 years. Among them, 52.45% the buyers plan to build their houses within 10 years from now, 32.17% plan to build their houses within 5 years from now.
- ▶ Buyers from the 40-50 years age group are more willing to build their own houses in upcoming 3 or 5 or 10 years.
- ▶ Respondents who are currently residing at Zone-4 (Khilgaon, Motijheel, Paltan, Ramna, Shahbagh, Tejgaon) area are keener to build their own houses.
- ▶ For building houses, respondents mostly prefer Uttara, Mirpur, Purbachal area, Bashundhara area, Mohammadpur, Dhanmondi, and Gulshan

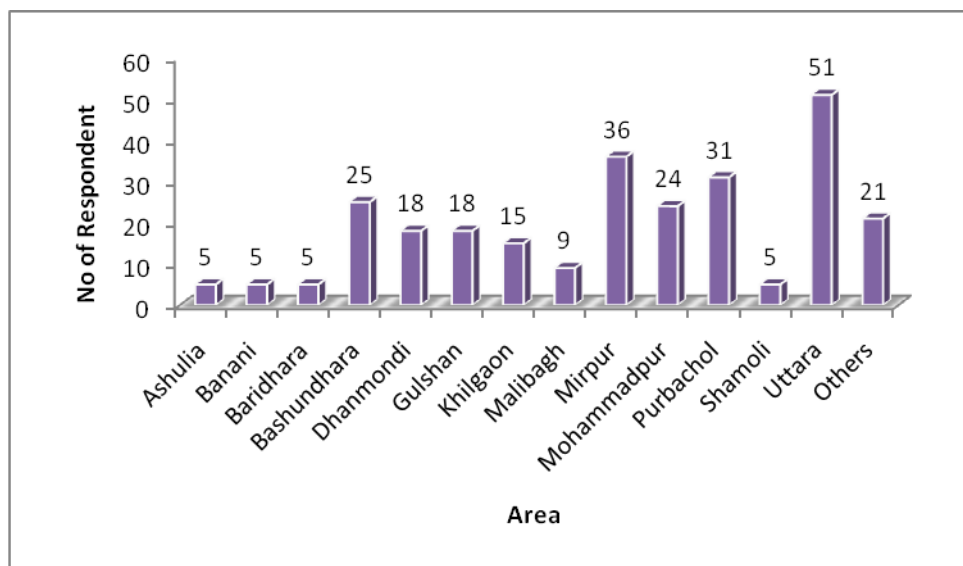


Figure 23: Area preference for building houses

- ▶ Major reasons for preferring any particular area are:
  - ▶ Ease of communication with office, school, college etc
  - ▶ Less expensive (Mirpur)
  - ▶ Environment is calm, quiet, and good
  - ▶ More planned area (Bashundhara area, Purbachal area, Dhanmondi, Gulshan)
  - ▶ Residing at that area for a long time and have relatives in that area
  
- ▶ Respondents from the middle income group, i.e. 30,000 to 45,000 and 45,000 to 60,000 are more interested to build their own houses in future. About 84% respondents from these two income group resides in rented houses.
- ▶ Among different occupational groups, Businessmen, Private Bankers, and Doctors (both Govt. service holders and private practitioners) are more willing to build their own houses.
- ▶ Major sources of fund are bank loan, and personal and family savings.

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#### 3.5.9.2 BUYERS WHO INTEND TO PURCHASE FLATS

- ▶ Younger respondents much more eager to purchase flats than the older people. But they do not have any immediate plan; rather they intend to purchase flats within 5 to 10 years from now.
- ▶ Respondents from the 40-50 age groups are keener to purchase flats within 3 years from now. Older people are willing to purchase flats though they already have their own house or flat or plot.
- ▶ Respondents who are currently residing at Zone-2 (Adabor, Dhanmondi, Mohammadpur, New Market), Zone-3 (Darus Salam, Kafrul, Mirpur, Pallabi, Shah Ali), and Zone-5 (Badda, Cantonment, Gulshan, Banani, Baridhara) are more willing to purchase flats.
- ▶ Respondents who are currently residing at Zone-2 (Adabor, Dhanmondi, Mohammadpur, New Market) and Zone-5 (Badda, Cantonment, Gulshan, Banani, Baridhara) are keener to purchase flats earlier, i.e. within 3 to 5 years from now.

- ▶ For purchasing flats, respondents mostly prefer Dhanmondi, Uttara, Mirpur, Mohammadpur, Gulshan-Banani, Basundhara area, and Malibagh-Mogbazar area.

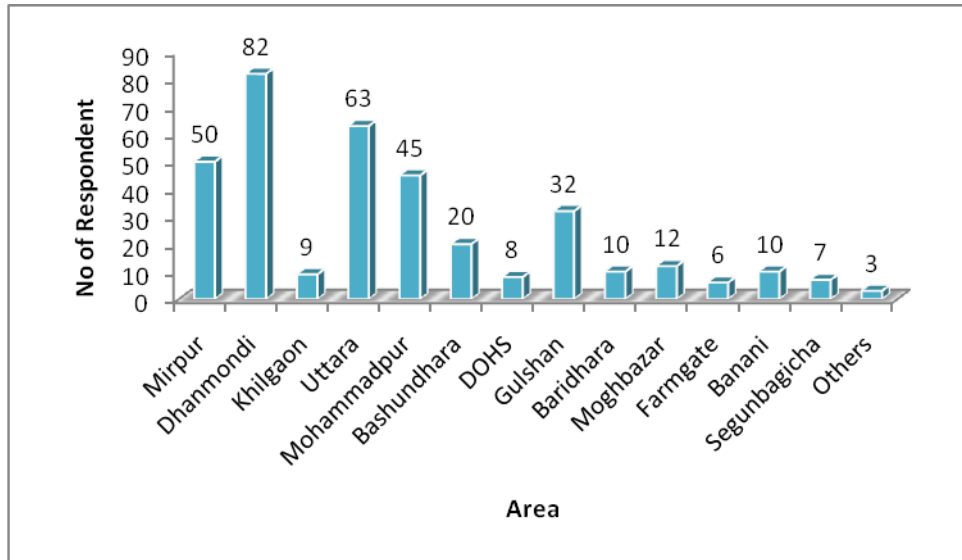


Figure 24: Area of preference for buying flats

- ▶ Major reasons for preferring any particular area are:
  - ▶ More planned area (Uttara, Bashundhara, Dhanmondi, Gulshan)
  - ▶ Ease of communication with office, school, college etc
  - ▶ Personal choice
  - ▶ Residing at that area for a long time and have relatives in that area
  - ▶ Less expensive (Mirpur, Mohammadpur, Uttara)
- ▶ Respondents from the lower and middle income group, i.e. 30,000 or below and 30,000 to 45,000 are more interested to buy flats. But these groups of buyers intend to buy flats in 10 years from now which is very logical compared to their current level of income.
- ▶ Respondents from the higher income group, i.e. 60,000 to 75,000 and 75,000 or more are keener to buy flats within 3 to 5 years from now.
- ▶ Bankers are more willing to buy flats within 3 to 5 years. This is because Bankers can get housing loan at lower interest rate than others.
- ▶ Other service holders (both govt. and private) are more willing to purchase flats but they want to buy flats within 5 to 10 years from now.
- ▶ Major sources of fund are bank loan, and personal and family savings.

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### 3.5.10 PUBLIC PERCEPTION TOWARDS THE REAL ESTATE SECTOR

Respondents' perception towards the real estate sector is summarized below.

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#### 3.5.10.1 GENERAL PERCEPTION

This section summarizes some public opinion regarding the activities of the govt. and private Real Estate Sector.

- ▶ 72.3% of the respondents think that the Government is not playing proper and adequate role in solving housing needs and problems in the urban areas.
- ▶ 60.8% of the respondents believe that the private Real Estate Sector is playing an important role in satisfying the housing needs in urban areas.
- ▶ 67.5% of the respondents consider that the private Real Estate Sector have a direct impact on the development of different linkage industries
- ▶ 89.3% of the respondents think that lack of water, gas, and electricity connection on due time is badly hampering the growth of private Real Estate Sector.
- ▶ 64.6% of the respondents believe that due to difficulties in getting bank loan the growth of private Real Estate Sector is slowing down and buyers are unable to fulfill their housing needs.
- ▶ 63.9% of the respondents think that the growth of private Real Estate Sector is hindered due to inefficient govt. initiative in fixing land prices at the favorable locations of housing. This has a direct impact on the prices of completed flats and purchasing power of the potential buyers.

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#### 3.5.10.2 BANK LOAN FACILITY: A MAJOR ISSUE IN MAKING PURCHASE DECISION

- ▶ In all the cases (purchasing flat or plot, or building houses), more than 80% of the respondents declared bank loan as a major source of fund.
- ▶ Most of the respondents affirmed that due to difficulties in getting bank loan they are unable to fulfill their housing needs in near future.
- ▶ Among the potential buyer of flats, Bankers are more willing to buy flats within 3 to 5 years. This is because Bankers can get housing loan at lower interest rate than others.

### 3.5.11 SAVINGS SCENARIO OF THE RESPONDENTS

Among the respondents around 50% (330 out of 676) has an average family saving of around BDT 20,000. Note that, monthly family expenditure of the rest of the households is more than their monthly family income.

The following table shows the monthly family savings of the respondents based on their monthly family income.

<b>Monthly family income</b>	<b>Monthly average savings</b>
Below BDT 30,000	BDT 5,000
BDT 30,000 to 45,000	BDT 6,000
BDT 45,001 to 60,000	BDT 10,000
BDT 60,001 to 75,000	BDT 12,500
More than BDT 75,000	BDT 35,000

Table 11: Savings of the respondents based on monthly family income

The following table shows the monthly family savings of the respondents based on their profession.

<b>Profession of the respondents</b>	<b>Monthly average savings</b>
Doctor	BDT 30,000
Engineer	BDT 20,000
Banker	BDT 20,000
Teacher	BDT 8,500
Businessperson	BDT 30,000
Lawyer	BDT 40,000
Service holder	BDT 10,000
Others	BDT 15,000

Table 12: Savings of the respondents based on respondent's profession

### 3.6 USAGE OF BANK LOAN OR OTHER CREDIT SCHEMES IN REAL ESTATE SECTOR

Bank loan plays a major role in the Real Estate sector. In this section the scenario of bank loan is discussed in detail.

#### 3.6.1 BANK LOAN SCENARIO

Bank loan for the Real Estate sector comprises the following:

- ▶ Loan disbursed to the Housing Society/Company
- ▶ Loan for Urban Housing
- ▶ Loan for Rural Housing
- ▶ Loan for Apartment/ Housing Renovation
- ▶ Loan for Flat Purchase, and
- ▶ Loan for Land Purchase

The following table shows total amount of loan disbursed on the Real Estate sector from the Banking sector of Bangladesh during the period from June 2006 to June 2011.

Real Estate Sector	June, 2006	June, 2007	June, 2008	June, 2009	June, 2010	June, 2011
<b>Housing Society/Company</b>	<b>136,034</b>	<b>157,973</b>	<b>172,262</b>	<b>242,461</b>	<b>369,470</b>	<b>623,134</b>
Urban Housing	416,528	520,845	567,748	684,000	837,173	985,242
Rural Housing	12,600	18,997	43,192	29,091	46,596	71,735
Apartment/ Housing Renovation	20,582	37,529	46,465	100,829	113,033	172,660
<b>Flat Purchase</b>	<b>37,796</b>	<b>111,629</b>	<b>160,883</b>	<b>145,995</b>	<b>213,009</b>	<b>310,878</b>
Land Purchase	16,016	13,537	19,561	34,243	45,898	42,186
<b>Total</b>	<b>639,556</b>	<b>860,510</b>	<b>1,010,111</b>	<b>1,236,619</b>	<b>1,625,179</b>	<b>2,205,835</b>

Source: Scheduled Banks Statistics, Bangladesh Bank

Table 13: Loan amount on Real Estate Sector of Bangladesh during 2006 to 2011 (Tk. in Lac)



The following table shows total no. of loan accounts (Individual / Institution) against which loan was disbursed from the Banking sector of Bangladesh to the Real Estate Sector during the period from June 2006 to June 2011.

Real Estate Sector	June, 2006	June, 2007	June, 2008	June, 2009	June, 2010	June, 2011
<b>Housing Society/Company</b>	<b>922</b>	<b>2,166</b>	<b>1,669</b>	<b>1,088</b>	<b>1,747</b>	<b>2,385</b>
Urban Housing	53,167	62,411	95,383	64,497	72,801	72,472
Rural Housing	25,651	29,448	36,499	27,011	27,415	31,113
Apartment/ Housing Renovation	2,877	2,711	3,572	8,060	7,387	11,230
<b>Flat Purchase</b>	<b>3,066</b>	<b>16,459</b>	<b>27,052</b>	<b>34,287</b>	<b>10,022</b>	<b>11,932</b>
Land Purchase	966	1,971	33,199	27,357	15,131	7,515
<b>Total</b>	<b>86,649</b>	<b>115,166</b>	<b>197,374</b>	<b>162,300</b>	<b>134,503</b>	<b>136,647</b>

Source: Scheduled Banks Statistics, Bangladesh Bank

Table 14: No. of Loan A/C (Individual / Institution) on Real Estate Sector during 2006 to 2011

### 3.6.2 TREND ANALYSIS OF BANK LOANS

The following figure shows the overall growth of loan account and amount to the Real Estate Sector.

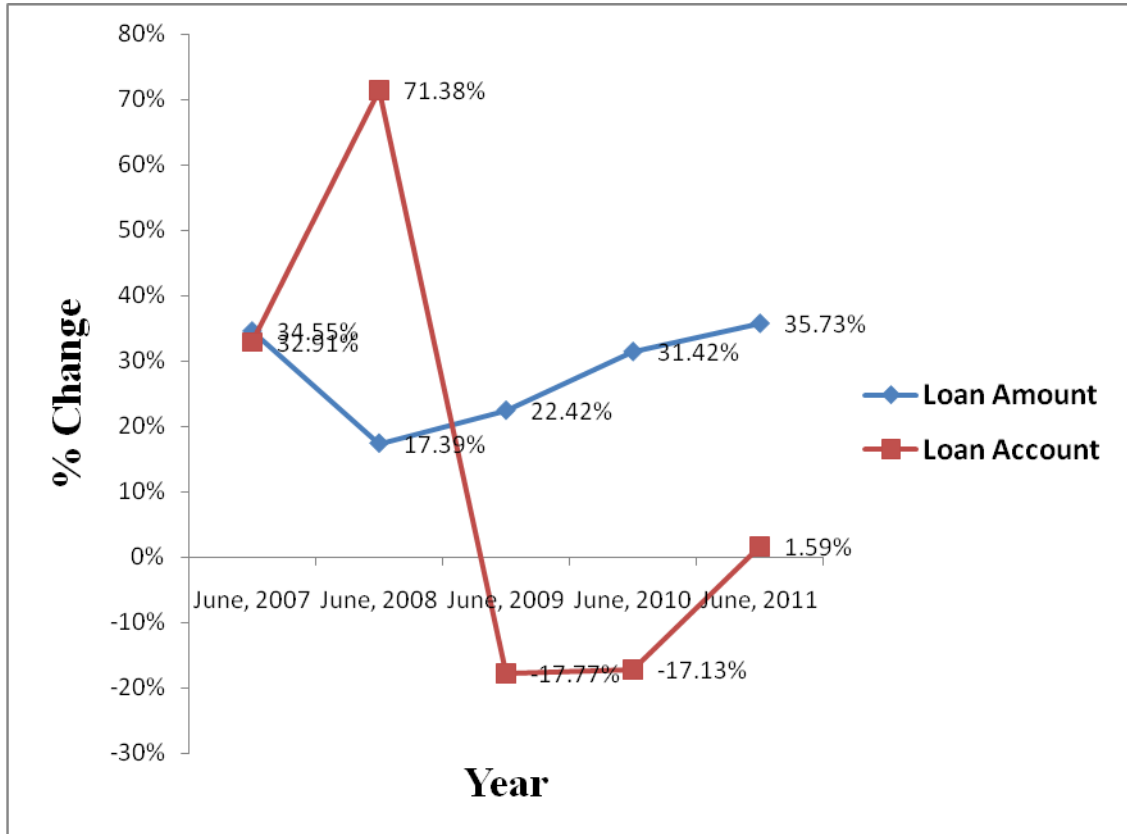


Figure 25: Overall growth of loan account and amount to the Real Estate Sector

- ▶ During the period June 2007 to June 2008, the Interim Government period, no. of loan accounts had a sharp positive growth. But the total loan amount for this period had a negative growth. Which means loan was disbursed to a number of clients, but the loan amount was lower.
- ▶ During the period June 2008 to June 2009, the Interim Government period, no. of loan accounts had a drastic negative growth. But the total loan amount for this period had a positive growth. Which means loan was distributed to a limited number of clients, but the loan amount was higher.
- ▶ After June 2009, during the tenure of present govt., total loan amount maintained almost a linear growth. At the same time, no. of loan accounts raised from a negative growth to its usual trend.

### 3.6.2.1 SCENARIO OF THE REAL ESTATE DEVELOPERS

The following figure shows the growth of loan account and amount to the Real Estate Developers.

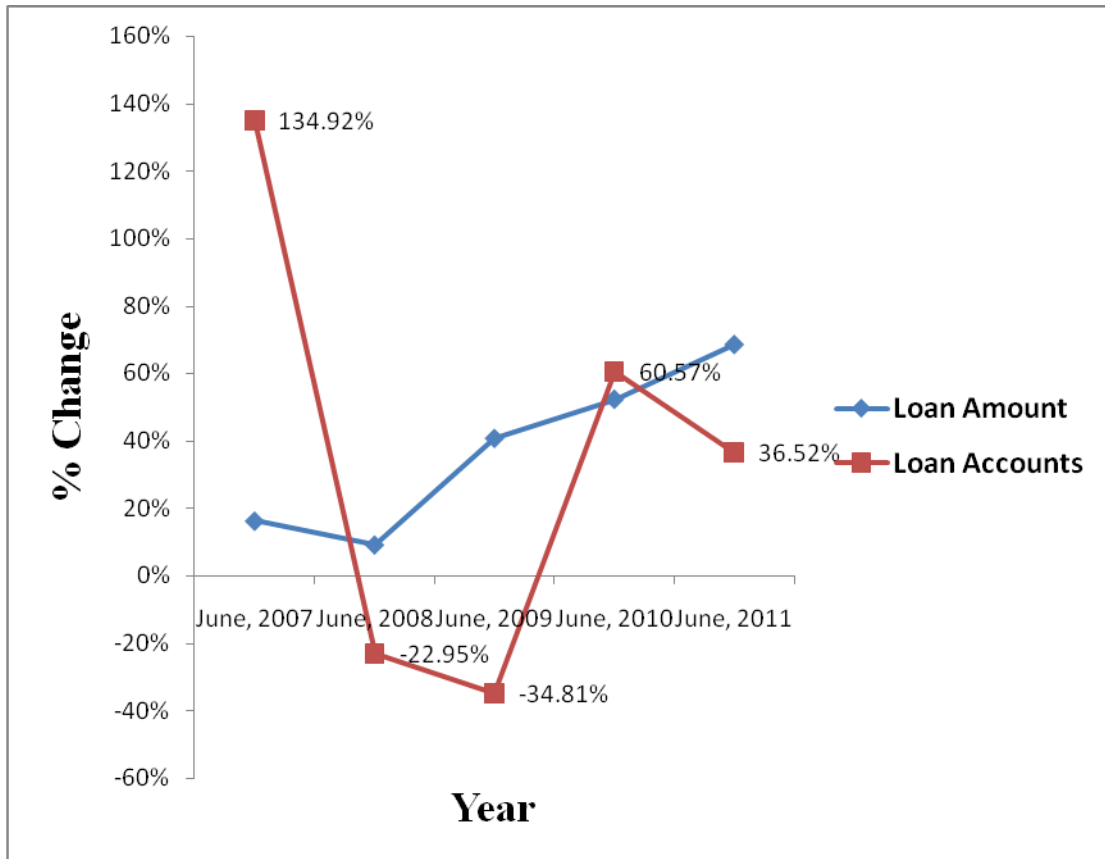


Figure 26: Growth of loan account and amount to the Real Estate Developers

- ▶ In June 2006, loan was disbursed to 922 Real Estate Developer companies. In 2011, this number raised to 2385, showing around 160% growth in loan disbursement during this period.
- ▶ During the period June 2007 to June 2008, no. of loan accounts had a drastic negative growth. The total loan amount in this period also had a slender negative growth.
- ▶ After June 2008, total loan amount always had a positive growth irrespective of the growth in the no. of loan accounts.
- ▶ Again, during June 2009 to June 2010 no. of loan accounts had a sharp, almost exponential, positive growth.

### 3.6.2.2 SCENARIO OF THE APARTMENT BUYERS

The following figure shows the growth of loan account and amount to the Apartment Buyers.

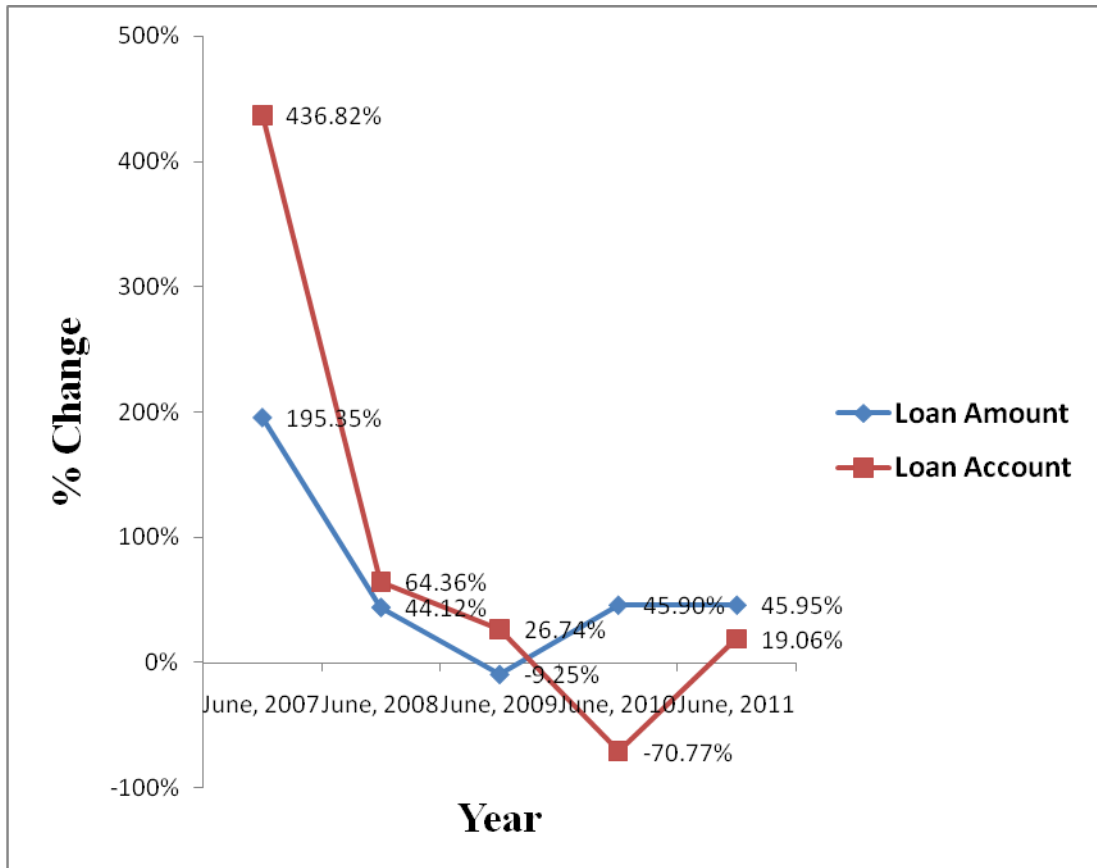


Figure 27: Growth of loan account and amount to the Apartment Buyers

- ▶ During the period June 2007 to June 2008, no. of loan accounts and the total loan amount both had a drastic negative growth.
- ▶ In case of the no. of loan amount, the negative growth continued up to June 2010, but the growth of total loan amount had a rather steady growth.

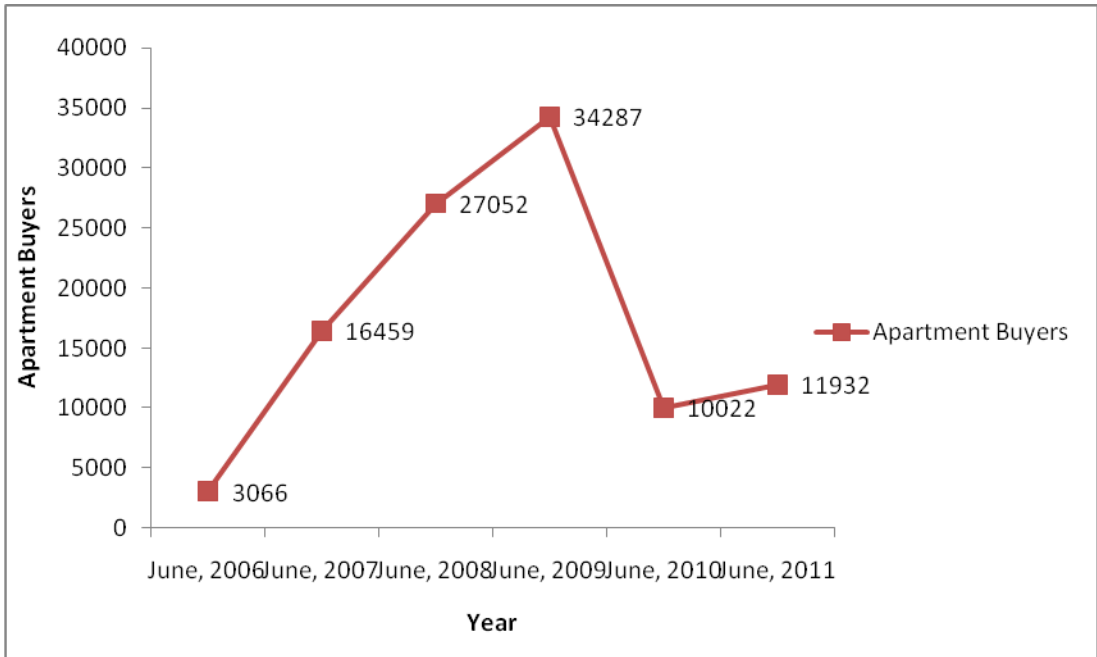


Figure 28: No of Apartment Buyers who have taken bank loans to purchase flats

- ▶ In June 2006, loan was disbursed to 3066 different apartment buyers. In 2009, highest 34287 apartment buyers were provided with bank loans. Later in 2011, this number decreased to 11932.

### 3.7 PRESENT MARKET DEMAND ANALYSIS

Based on the consumer survey part of this study, the demand for flats and houses in Dhaka were estimated. While estimating demand, we have considered the 30,000 plus monthly income group people as a potential client. Here, three different source of population was used to estimate the demand. The following table shows the estimated demand for flats and houses in upcoming three or five or ten years.

Population of Dhaka	14,251,000 (CIA World fact book)	10,298,888 (SBS, Dec, 2011, BB)	11,875,000 (Census 2011)
Avg. no. of member in a household	4.5	4.5	4.5
Total household in Dhaka	3,166,889	2,288,642	2,638,889
Total household in Dhaka who have 30,000+ income	410,112	296,379	341,736
Total 30,000+ income group people in Dhaka	635,674	459,388	529,691
<b>Demand for houses</b>			
Total demand to build home in 3 yrs.	40,429	29,217	33,688
Total demand to build home in 5 yrs.	82,765	59,812	68,966
Total demand to build home in 10 yrs.	132,602	95,828	110,494
<b>Demand for flats</b>			
Total demand to purchase a flat in 3 yrs	105,331	76,121	87,770
Total demand to purchase a flat in 5 yrs	126,944	91,740	105,779
Total demand to purchase a flat in 10 yrs	96,877	70,011	80,725

Table 15: Estimated demand for Flats and houses in Dhaka in upcoming 3/ 5/ 10 years

- ▶ Comparing the three population sources, it is estimated that demand for houses in upcoming three years is around 30,000 to 40,000; in upcoming five years demand is around 60,000 to 80,000; and in upcoming 10 years demand are around 95,000 to 130,000.
- ▶ In case of flats, estimated demand in upcoming three years is around 75,000 to 100,000; in upcoming five years demand is around 90,000 to 125,000; and in upcoming 10 years demand are around 70,000 to 95,000.
- ▶ For houses, demand is increasing in the long run; i.e. people are more interested to build houses in 10 years.
- ▶ For flats, demand is more in medium and short run; i.e. people are more interested to purchase flats in 5 years, then in 3 years.

The following figure summarizes the market demand scenario.

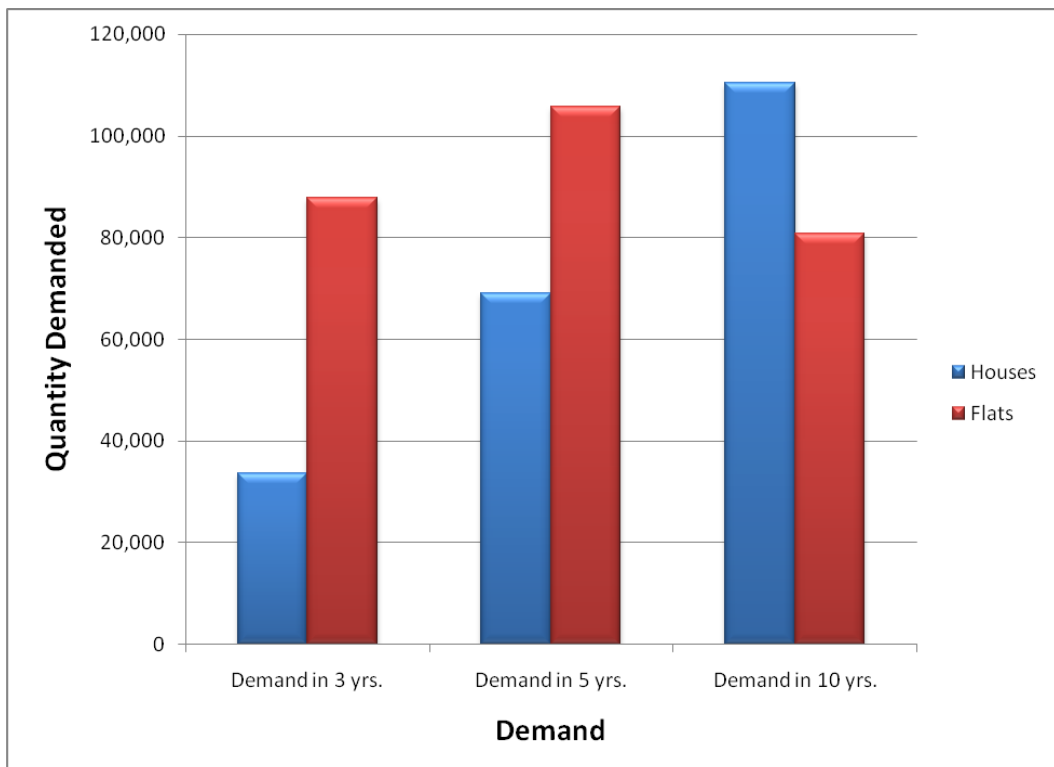


Figure 29: Estimated demand for flats and houses

### 3.8 TREND OF PRICE HIKE OF LAND AND APARTMENTS

Apartment price hike is an important issue from the perspective of both the clients and the developer companies. The following section analyzes the apartment price hike scenario.

#### 3.8.1 APARTMENT PRICE HIKE TREND IN DHAKA CITY

The apartment price mainly depends on two parameters:

- ▶ Price of the land, and
- ▶ Construction cost of the apartment

Increase in land price and price of the construction materials automatically results in increase of apartment price. In this section, the price hike scenario will be analyzed.

The following table shows the price of per square feet apartments in the major areas of Dhaka city from 1990 to 2010.

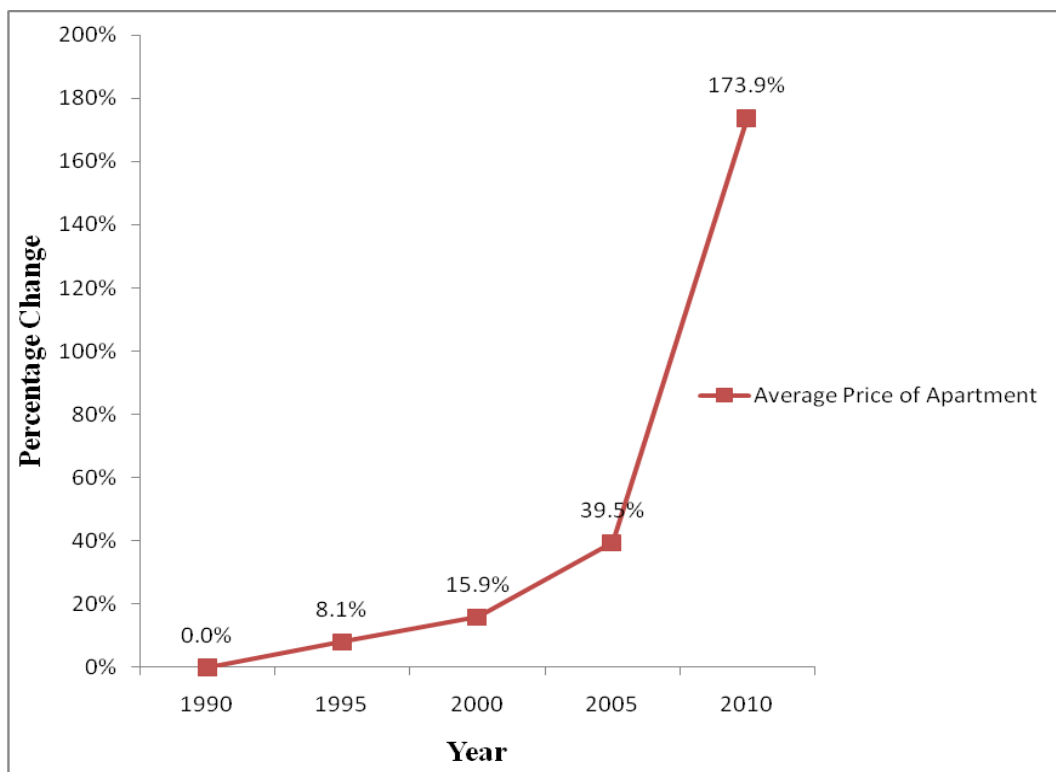
Area	Average Price of Apartments (Taka/Sq. feet)					% Increase in price over the past two decades	
	1990	1995	2000	2005	2010	Between 1990-2000	Between 2000-2010
Dhanmondi	2150	2200	2400	3300	14000	12%	483%
Gulshan	2115	2080	2450	4500	14000	16%	471%
Banani	1750	1950	2200	3100	12500	26%	468%
Baridhara	1850	1950	2150	4000	20000	16%	830%
Lalmatia	1800	1950	2400	3400	8500	33%	254%
Mirpur	1250	1300	1500	2500	5500	20%	267%
Uttara	1650	1750	2000	2700	5300	21%	165%
Shantinagar	1850	1900	2200	2700	5000	19%	127%
Siddeswari	1450	1800	2250	2750	5500	55%	144%
Malibag	1600	1850	2250	2500	7000	41%	211%
Mohammadpur	1450	1600	1800	3500	4500	24%	150%
Shamoli	1350	1500	1600	2100	7000	19%	338%
Kolabagan	1800	2000	2250	2100	5500	25%	144%
Monipuripara	1850	2000	2250	3300	5500	22%	144%
Green Road	1600	1700	2000	2500	5500	25%	175%
Elephant Road	1600	1800	2200	2500	5500	38%	150%
Segun Bagicha	1450	1550	1900	2500	6000	31%	216%

Table 16: Average Price of Apartments (Taka/ Sq. Feet) from 1990 to 2010



- ▶ In the first decade of 21<sup>st</sup> century, the percentage increase in per square feet price of apartments is very high, particularly in Baridhara, Dhanmondi, Gulshan, Banani, and Shamoli area.
- ▶ Compared to the price increase of the earlier decade, price rise is almost exponential in this decade.

The following figure shows the price hike trend of apartments in Dhaka city from 1990 to 2010.



Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 30: Price hike trend of apartments in Dhaka city from 1990 to 2010

- ▶ After 2005, average price of apartments increased almost exponentially.

### 3.8.2 LAND PRICE HIKE TREND

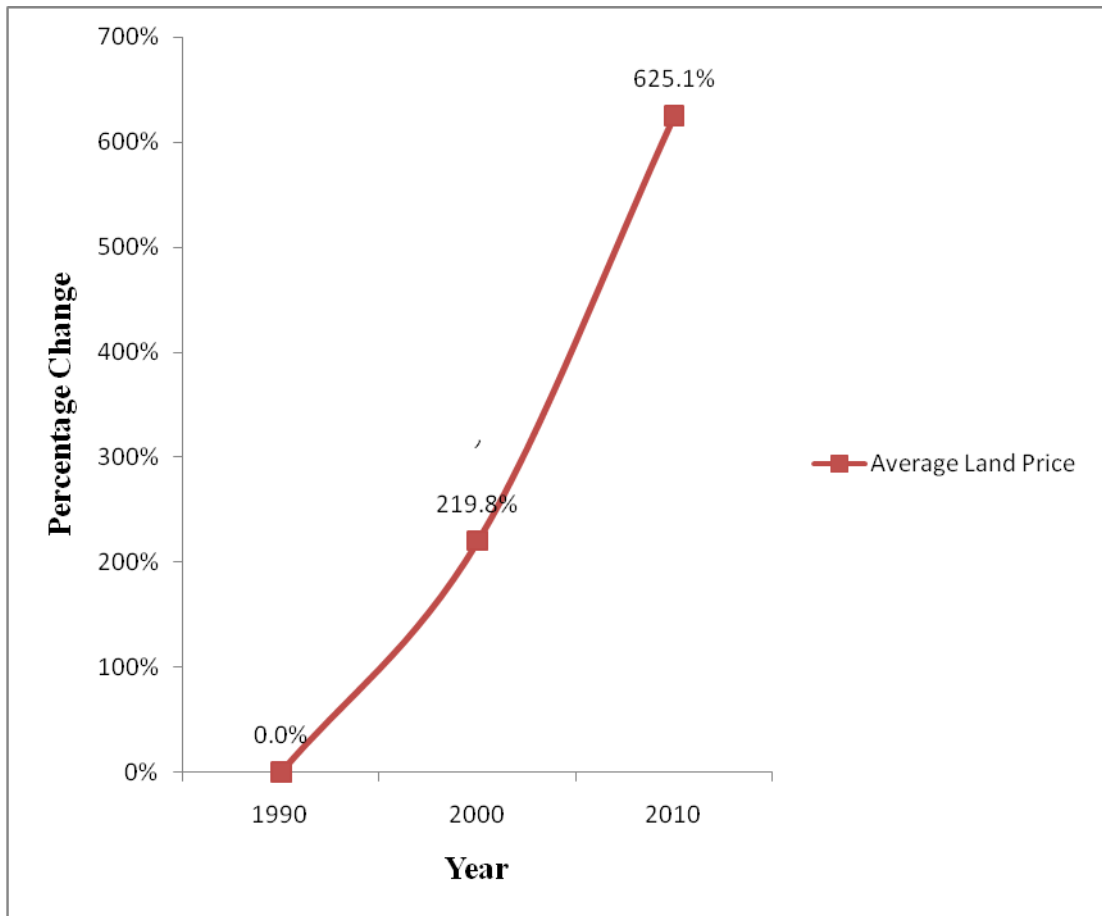
The following table shows the price of per katha land in the major areas of Dhaka city from 1990 to 2010.

Area	Price of land (Taka/Katha)				% Increase in price over the past two decades	
	Year				Between 1990-2000	Between 2000-2010
	1975	1990	2000	2010		
Baridhara	25,000	600,000	5,000,000	40,000,000	733%	700%
Gulshan	25,000	600,000	2,200,000	25,000,000	267%	1036%
Banani	25,000	600,000	2,000,000	15,000,000	233%	650%
Mahakhali	25,000	600,000	1,800,000	12,000,000	200%	567%
Dhanmondi	25,000	600,000	2,200,000	20,000,000	267%	809%
Lalmatia	20,000	600,000	1,800,000	15,000,000	200%	733%
Azimpur	175,000	600,000	1,600,000	5,500,000	167%	244%
Mohammadpur	25,000	500,000	1,200,000	7,000,000	140%	483%
Shantinagar	20,000	500,000	1,500,000	10,000,000	200%	567%
Shamoli	17,500	300,000	1,000,000	4,500,000	233%	350%
Uttara	20,000	300,000	1,000,000	7,500,000	233%	650%
Cantonment	20,000	400,000	1,000,000	7,500,000	150%	650%
Komlapur	17,500	400,000	800,000	4,000,000	100%	400%
Gendaria	10,000	400,000	700,000	3,500,000	75%	400%
Basabo	2,000	300,000	800,000	3,500,000	167%	338%
Kollanpur	17,500	300,000	800,000	3,200,000	167%	300%
Mirpur	10,000	200,000	700,000	4,000,000	250%	471%
Badda	4,000	200,000	600,000	3,000,000	200%	400%
Goran	4,000	200,000	600,000	2,600,000	200%	333%
Demra	4,000	200,000	600,000	18,000,000	200%	2900%
Motijheel	50,000	1,200,000	3,500,000	20,000,000	192%	471%
Kawran Bazar	41,500	1,000,000	2,500,000	15,000,000	150%	500%

Table 17: Price of Land (Taka/ Katha) from 1990 to 2010

- ▶ In the first decade of 21<sup>st</sup> century, the price of per katha land increased unbelievably almost all over the Dhaka city.
- ▶ Compared to the price increase of the earlier decade, the percentage increase in price almost doubled, and in some areas it is three times to ten times the earlier price.

The following figure shows the price hike trend of lands in Dhaka city from 1990 to 2010.



Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 31: Land price hike trend from 1990 to 2010

- ▶ The price of land is increasing at a very high rate after 1990. After 2000, the rise in land price became steeper. This price rise is unbelievable and unexplainable.
- ▶ There is no control of the govt. over the price increase of land within Dhaka city. Increased land price have a direct impact on apartment price.
- ▶ From the consumer survey it is also found that, 63.9% of the respondents think that the growth of private Real Estate Sector is hindered due to inefficient govt. initiative in fixing land prices at the favorable locations of housing. This has a direct impact on the prices of completed flats and purchasing power of the potential buyers.

### 3.8.3 PRICE HIKE TREND OF SOME MAJOR CONSTRUCTION MATERIALS

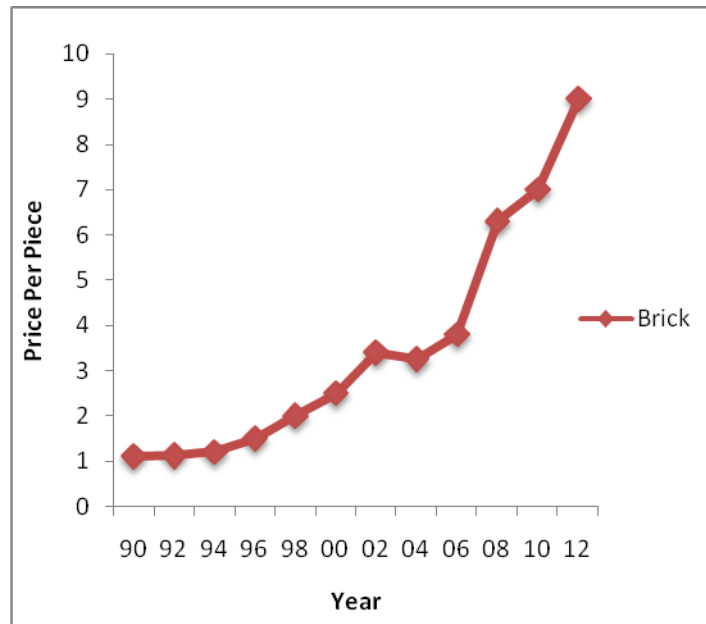
To analyze the apartment price hike scenario, the price hike trends of some major construction materials are analyzed. They are,

- ▶ Bricks
- ▶ Fine sand
- ▶ Granular sand
- ▶ 60 grade Rod
- ▶ Cement

A lot other construction materials are required to develop a Real Estate project, but only the above five are analyzed due to the availability of historical data. Data regarding other construction materials are not available.

#### 3.8.3.1 PRICE HIKE TREND OF BRICKS

The following figure shows the price hike trend of per piece brick from 1990 to 2010.



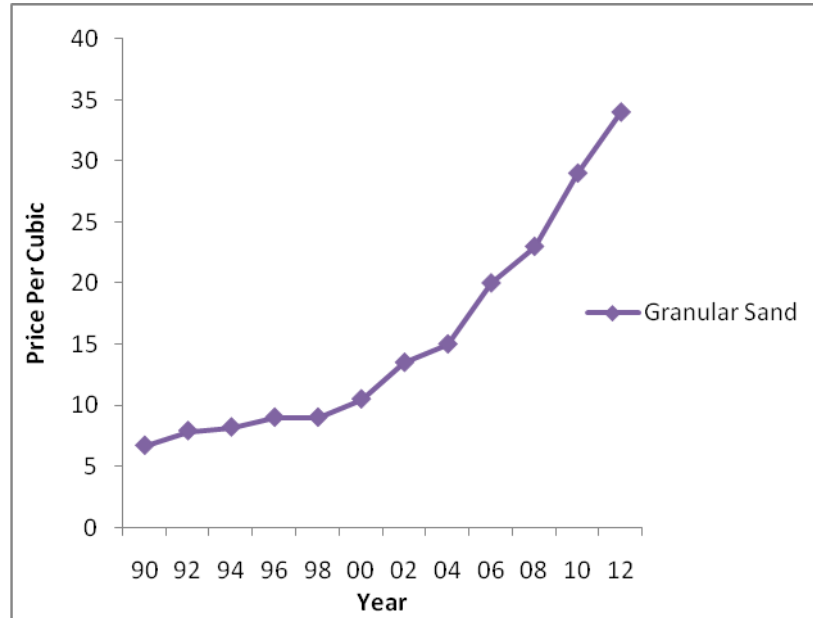
Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 32: Price hike trend of bricks from 1990 to 2010

- ▶ After 2005, price of bricks had a rapid, almost exponential, increase.

### 3.8.3.2 PRICE HIKE TREND OF GRANULAR SAND

The following figure shows the price hike trend of per cubic feet granular sand from 1990 to 2010.



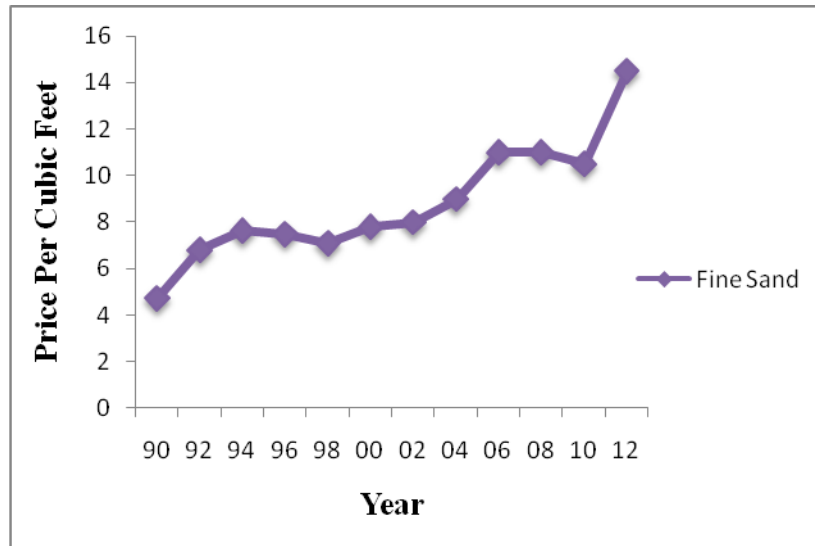
Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 33: Price Hike Trend of Granular sand from 1990 to 2010

- ▶ After 2004, price of granular sand had a rapid, almost exponential, increase.

### 3.8.3.3 PRICE HIKE TREND OF FINE SAND

The following figure shows the price hike trend of per cubic feet fine sand from 1990 to 2010.



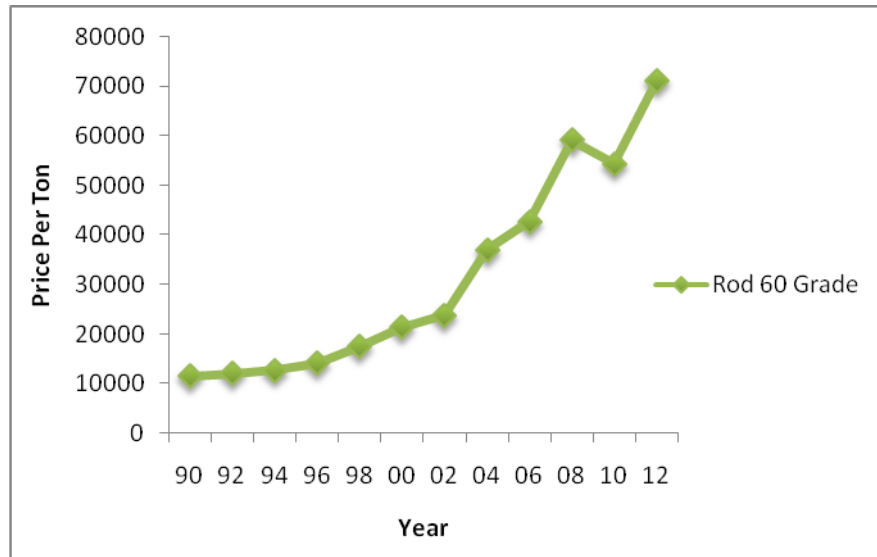
Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 34: Price Hike Trend of Fine sand from 1990 to 2010

- ▶ After 2004, price of fine sand had a rapid increase. Then at 2008, the price fall down a little, but then again at 2010 there is a sharp rise in per cubic feet price.

### 3.8.3.4 PRICE HIKE TREND OF 60 GRADE ROD

The following figure shows the price hike trend of per ton 60 grade rod from 1990 to 2010.



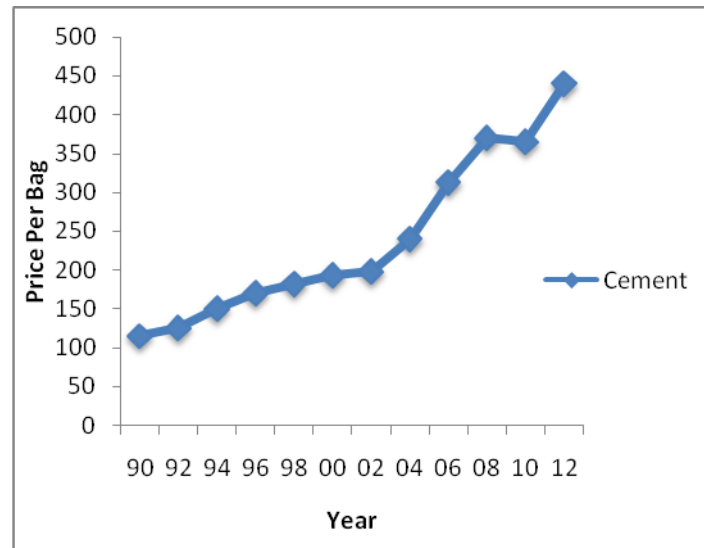
Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 35: Price Hike Trend of 60 Grade Rod from 1990 to 2010

- ▶ After 2002, price of 60 grade rod had a rapid increase. Then at 2008, the price fall down a little, but then again at 2010 there is a sharp rise in per ton price of rod.

### 3.8.3.5 PRICE HIKE TREND CEMENT

The following figure shows the price hike trend of per bag cement from 1990 to 2010.



Source: Statistical Yearbook, Bangladesh Bureau of Statistics (BBS)

Figure 36: Price Hike Trend of Cement from 1990 to 2010

- ▶ After 2002, price of per bag cement had a rapid increase. Then at 2008, the price fall down a little, but then again at 2010 there is a sharp rise in per bag cement price.



### 3.8.4 REASONS OF APARTMENT PRICE HIKE

The price hike of apartments is a major and debatable issue in the Real Estate sector of Bangladesh. The Real Estate developer companies are criticized of charging a lot of money for an apartment. But from the above discussion, it is obvious that, in recent years, apartment price increased due to the unimaginable increase in land price as well as sharp increase in prices of the construction materials.

The following figure shows the combined effect of price hike of land and construction materials on apartment price. The percentage increase in prices is calculated using 1990 as the base year.

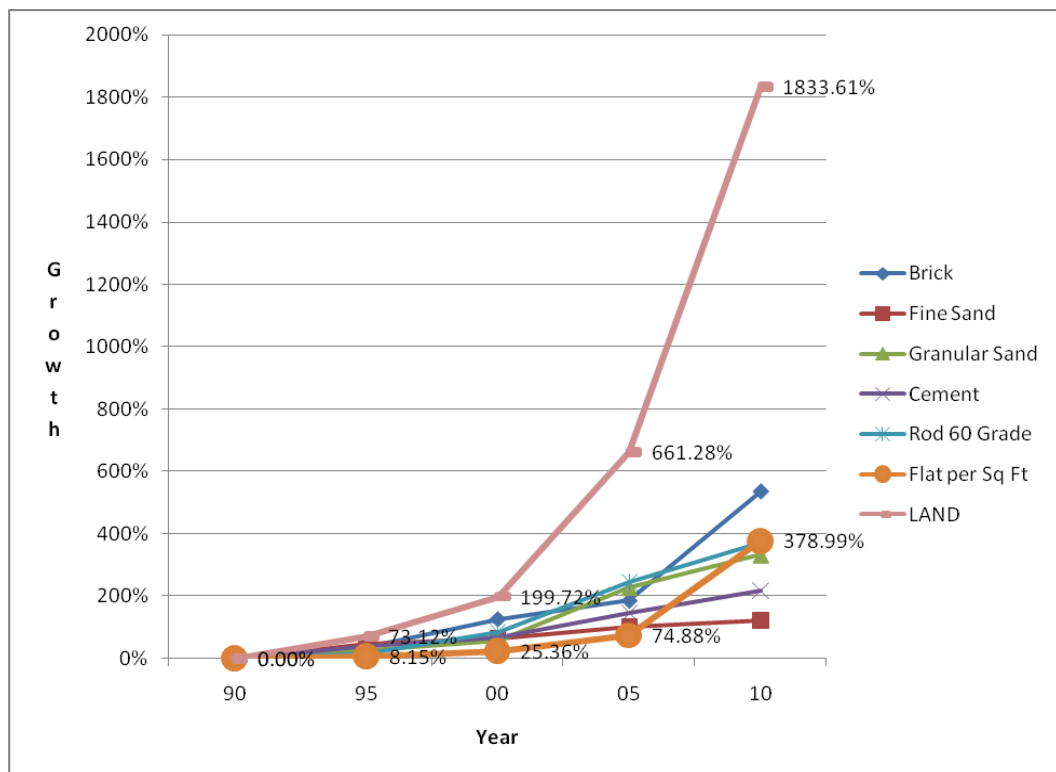


Figure 37: Combined effect of price hike of land and construction materials on apartment price

So, from the above discussion, it is clear that, price hike of apartments was obvious in the last few years. The Real Estate Developers were bound to increase their price to cover the cost of a project.

### 3.9 EMPLOYMENT ASPECTS

The construction industry is a labor-intensive industry, whose capacity of absorbing labor is great. The industry provides many jobs for skilled, semi-skilled and unskilled workers both in the formal and informal sectors. For the migrants from the rural areas the construction industry is often a stepping stone to urban life.

Real Estate sector is a major part of the construction sector. Most of the labour force engaged in the construction sector is basically engaged in the Real Estate sector.

The following table shows the labour force engagement to the construction sector from 1999 to 2010.

	1999-00	2002-03	2005-06	2010 (p*)
<b>Total Labour Force</b>	40,700,000	46,300,000	49,500,000	57,100,000
<b>Labour Force in Construction sector (unit)</b>	1,147,740	1,569,570	1,564,200	2,512,400
<b>Labour Force in Construction sector (%)</b>	2.82	3.39	3.16	4.4

Source: Statistical Year Book of Bangladesh – 2010

\*p = provisional

Table 18: Labour Force scenario

This scenario actually implies a consistent growth in the involvement of the labour force in the construction sector.

### 3.10 USAGE OF UNDOCUMENTED MONEY

Undocumented economic activity holds a large portion of the national economy of Bangladesh. Undeclared income could account for up to 80% gross domestic product - some US\$110 billion, Agence France-Presse reported this month, citing a new Finance Ministry study (Chowdhury, 2011).

Black or undocumented money is kept in different forms and shapes. Black money is kept deposited in local or foreign banks, Real Estate sector, invested in the purchase of shares and stocks, purchase of different saving instruments, sometimes transferred through unofficial channels and is invested outside the country, and also kept in the form of cash, gold, jewelry etc (Waresi, 2010).

In Real Estate sector, black money is utilized in acquiring land, apartments, buildings, shops etc. These are often acquired in the names of relatives, friends or trusted men of the black money holder (Waresi, 2010).

But the usage of undocumented money in the Real Estate sector cannot be measured precisely because no authentic information is available anywhere.

### 3.11 NRB INVESTMENT IN THE REAL ESTATE SECTOR

Like many other countries, most surveys indicate that the majority of remittances are used for consumptions. Food and clothing feature highest on the list. Siddiqui and Abrar's (2001) study revealed a proportion of 20% while in Murshid et al.'s (2002) survey 36% of the remittances were spent on food alone (IOM Rsearch Series, 2005).

A second important use of remittances is the purchase of land and home construction and repair. Murshid et al. (2002) stated that 15-40% and 10-30% is spent on each item respectively (IOM Rsearch Series, 2005).

From the consumer survey part of this study it is found that, foreign remittance is a prominent source of fund to purchase any real estate property along with personal and family savings, and bank loan. But, any consolidated figure about how much foreign remittance is invested per year in real estate sector was not available. From the survey, foreign investment was just identified as a source of fund. From the survey the following information was also derived.

- ▶ Among the 676 respondents of the survey 436 have a flat, or house, or plot in Dhaka city. Among the respondents, 13.5% (59 out of 436) stated that a portion of their total investment for the flat or house or plot was covered by foreign remittance from their family members.
- ▶ Foreign remittance covered around 31% of the total investment of the respondents who have used foreign remittance as a source of fund.
- ▶ Amount of remittance used to purchase a flat or house or plot ranges from BDT 20,000 to BDT 2,00,00,000

### 3.12 CONTRIBUTION IN THE GOVERNMENT EXCHEQUER INCLUDING ADVANCE INCOME TAX (AIT), VAT AND REGISTRATION FEES

The Real Estate sector contributes to the Government exchequer through Registration Fees, VAT, Advance Income Tax (AIT), Stamp Duty, Property Handover Tax etc. The following table shows the contribution to the government regarding flat and apartment purchase in Dhaka.

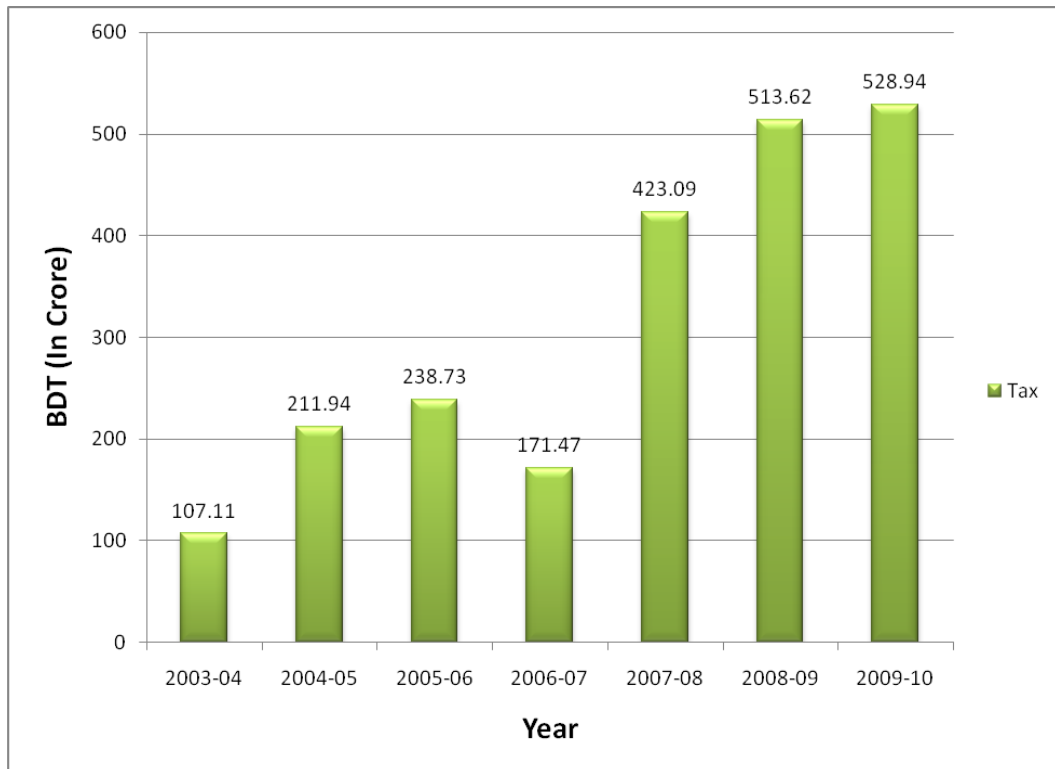
(In crore Tk.)

Year	Reg. fee	AIT	VAT	Gain tax	Stamp duty	Local govt. tax	Sub-registry Office fee	Total contribution
2006	14.4	40.7	8.7	28.9	17.3	11.5	2.9	124.4
2007	30.9	30.5	18.5	61.7	37.0	24.7	6.2	209.4
2008	82.1	33.3	49.3	65.7	98.6	65.7	16.4	411.1
2009	52.8	47.6	31.7	42.3	63.4	42.3	10.6	290.6
2010	86.9	87.7	65.2	86.9	130.4	86.9	21.7	565.9
2011	84.5	192.4	63.3	84.5	126.7	84.5	21.1	656.9

Table 19: Contribution to the govt. from 2006 to 2011 in Dhaka

According to the new rules, along with a gain tax of 2% (which was 5% till 2007) and stamp duty of 3% a customer is required to pay registration fees to the government, city-corporation and sub-registry office in the rates of 2% (which was 2.5% till 2009), 2% and .05% respectively bringing registration expenses down to a total of 9.5%. A customer also needs to pay an AIT of maximum Tk. 2000 for each Sq. meter of floor space and a VAT of 1.5% pulling cost of acquiring an apartment substantially up.

The following figure shows the amount of income tax collected by the govt. on transfer of properties.



Source: National Board of Revenue, Annual Report 2009-10

Figure 38: Income tax collected on transfer of properties

### 3.13 IMPACT ON GOVERNMENT REVENUE COLLECTIONS AS A RESULT OF INCREASE OF AIT

The following table shows the contribution of AIT to the government revenue collection in Dhaka from 2006 to 2011.

(In crore Tk.)

Year	Total contribution to the govt.	AIT	% contribution
2006	124.4	40.7	32.7
2007	209.4	30.5	14.6
2008	411.1	33.3	8.1
2009	290.6	47.6	16.4
2010	565.9	87.7	15.5
2011	656.9	192.4	29.3

Table 20: Contribution of AIT

From the above table, it is seen that the contribution of AIT in the total contribution to the government decreased during the period of 2007 to 2010. But, from 2011 the contribution of AIT in the total contribution to the government again increased sharply.

## 4 CONCLUSION AND RECOMMENDATIONS

### 4.1 CONCLUSION

With a rising population and increasing housing demand, apartment culture has grown up in Dhaka sharply. Apartments were first introduced by the formal private developers in early 80s to the housing history of Dhaka. It first appeared in Dhaka near Central Road and subsequently the city experienced a boom in apartment development in all residential areas including Paribagh, Maghbazar, Siddeshwari, Shantinagar, Dhanmondi, Mirpur, Banani, old DOHS, new DOHS, Gulshan and Baridhara, to name just a few. During the last decade, the total volume of Real Estate, Renting and Business service sector increased every year which implies a positive growth in the sector every year.

The growth in this industry also facilitated a fast growth in many linkage industries like glass and glass products industry, brick industry, cement industry, ceramic industry, iron and steel industry etc over the last decade. Such consistent growth in the real estate sector is mainly due to a consistent demand at the consumer end.

Currently, consumers are more interested to buy flats than build their own houses. People who already own a house or flat are still very willing to buy another property which actually adds in the growth in the demand. Buyers from the 40-50 years age group are more willing to build their own houses in upcoming years. Younger segments are willing to purchase flats rather than building their own houses. But in most cases they do not have any immediate plan. For building houses, people mostly prefer Uttara, Mirpur, Purbachal area, Bashundhara area, Mohammadpur, Dhanmondi, and Gulshan areas. For purchasing flats, consumers mostly prefer Dhanmondi, Uttara, Mirpur, Mohammadpur, Gulshan-Banani, Basundhara and Malibagh-Mogbazar areas. Among different occupational groups, Businessmen, Private Bankers, and Doctors (both Govt. service holders and private practitioners) are more willing to build their own houses or purchase flats. Major sources of fund are bank loan, and personal and family savings. One overall perception of the



consumers is that the government is yet to play proper roles in meeting the housing needs while the private sector is contributing significantly. The estimated demand for houses in upcoming three years is around 30,000 to 40,000; in upcoming five years demand is around 60,000 to 80,000; and in upcoming 10 years demand are around 95,000 to 130,000. In case of flats, estimated demand in upcoming three years is around 75,000 to 100,000; in upcoming five years demand is around 90,000 to 125,000; and in upcoming 10 years demand are around 70,000 to 95,000.

In line with the demand the price of real estate properties are also rising very fast. Price hike of land and construction materials also add to the overall price hike. The price of land is increasing at a very high rate after 1990. After 2000, the rise in land price became steeper. There is no control of the govt. over the price increase of land within Dhaka city. Increased land price have a direct impact on apartment price. Also, after 2005, price of bricks, granular sand, cement, grade 60 rod etc. had a rapid, almost exponential, increase. Due to such unimaginable increase in land price as well as sharp increase in prices of the construction materials price increase of apartments became an obvious consequence.

As an obvious result of such price hike, a good amount of undocumented money has been utilized in acquiring land, apartments, buildings, shops etc. in past few years. Apart from such undocumented money, foreign remittance is a prominent source of fund to purchase any real estate property along with personal and family savings, and bank loan.

Apart from meeting the housing needs, the Real Estate sector contributes to the Government exchequer through Registration Fees, VAT, Advance Income Tax (AIT), Stamp Duty, Property Handover Tax etc. Also, the construction industry is a labor-intensive industry, whose capacity of absorbing labor is great. The industry provides many jobs for skilled, semi-skilled and unskilled workers both in the formal and informal sectors. For the migrants from the rural areas the construction industry is

often a stepping stone to urban life. Real Estate sector is a major part of the construction sector. Most of the labour force engaged in the construction sector is basically engaged in the real estate sector. Thus real estate sector is also contributing a lot in the overall economy of Bangladesh.

From this study, it is evident that like most other economies of the world, the real estate sector of Bangladesh is playing a vital role in mitigating housing needs as well as contributing to the economy. It is felt by all concerned parties that a long term policy for the facilitation of sustainable growth of this industry is to be formulated very quickly as the industry is said to be entered into its matured state. For such policy formulation, it is very important that proper data is available and accessible to all concerned parties. In spite of being such an important segment of the economy of Bangladesh, there is very minimum data available. For assessing the overall business scenario, taking proper investment decisions and formulating long term strategies REHAB should immediately take some measure to create a central data depository for gathering data. Only this can ensure correct decision making regarding this sector in the future.

## 4.2 RECOMMENDATIONS

The objective of this research was to gather a comprehensive idea about the Real Estate sector of Bangladesh. During this study, the research team observed many things and identified some important issues that are to be noted and taken under consideration for ensuring a sustainable growth in this sector. Based on the observations of the researchers and outcomes of this research the following recommendations can be made:

- ▶ The major problem that was faced during the study was the lack of data availability. For a number of objectives of this study, financial data from the member companies were required. Especially, for calculating the GDP contribution of this sector in the overall economy and the total volume of this sector, primary data collection from its member organizations was essential. But, due to the absence of such financial information in REHAB depository and non responsiveness of the member companies, those objectives were fulfilled by using data from secondary sources – mainly from Bangladesh Bureau of Statistics. But Bangladesh Bureau of Statistics could not provide the methods of calculation of their information. It is essential that REHAB should establish a central data depository to preserve the financial information of its member companies. Through discussion with its member companies, REHAB may try to make it a requirement for the companies to submit financial information of previous five financial years for maintaining their membership.
- ▶ From the survey, it was found that in upcoming 10 years there is a demand for around 100,000 flats in or around the Dhaka city. So there is a huge demand for readymade flats among the potential buyers. From the survey, it was also found that, the 40-50 age groups are keener to purchase flats within 3 years from now. Besides, among different occupational groups, Businessmen, Bankers and Doctors (both Govt. service holders and private practitioners) are more willing to build their own houses or purchase flats. So the Real Estate developers should device appropriate marketing tools to target these groups of people.

- ▶ With this huge demand for flats in future, private Real Estate Sector has plenty of opportunities to play an important role in satisfying the housing needs of the people. The total volume of Real Estate sector has increased every year satisfying the housing needs of the urban people in the last few decades. And also contributions to the Government exchequer through Registration Fees, VAT, Advance Income Tax (AIT), Stamp Duty, Property Handover Tax etc. has increased every year. In future, this sector has enormous potential to expand its volume and thus contribute more in the national economy. For this, sufficient the Government assistance is required. While negotiating with the Government, this can be argued that, rather than tightening the grip to regulate this sector, if the Government takes initiatives to support this sector to grow and expand its volume, then this sector will be able to contribute more not only by generating more revenue to the Government but also by generating more employment opportunities to the people and by satisfying the essential housing needs of the people.
  
- ▶ The growth of private Real Estate Sector is hindered due to the incredible increase in land price. In fact, there is no control of the govt. over the price increase of land within Dhaka City. While negotiating with the govt., this can be argued that, to support the private Real Estate sector, govt. should take appropriate steps in fixing land prices and introduce price ceiling of per katha lands in different regions of Dhaka City.
  
- ▶ REHAB can take initiative to conduct a large scale consumer survey for better understanding of the housing needs of the buyers, and for identifying new market expansion and project development opportunities. For example, area specific survey within the 22 administrative units of Dhaka City and around the outskirts of Dhaka City can be conducted. Also surveys can be designed and conducted to explore new market opportunities in the prominent districts like Chittagong, Comilla, Sylhet, Rajshahi, Khulna, Bogra, Rangpur, and Jessore. These surveys can find out the demand of readymade flats in those district towns as well as identify when a company should penetrate these markets to satisfy the housing needs, how the projects should be designed, what should be the average flat size and average price per square feet etc.