Direct and Associated Factors Influencing the Growth in Supermarket Activity in Bangladesh

Md. Shaikh Farid¹, Mohammad Jahangir Alam², Md. Mostafizur Rahman¹, Swarup Barua¹ and Bishwajit Sarker³

¹Department of Agricultural Marketing and Business Management, Sylhet Agricultural University, Sylhet, Bangladesh.
²Department of Agribusiness and Marketing, Bangladesh Agricultural University, Mymensingh, Bangladesh.
³Department of Agricultural Statistics, Sylhet Agricultural University, Sylhet, Bangladesh.

Authors’ contributions

The work has been carried out from Author MSF master’s thesis and collaboration with supervisor author MJA and other authors. Author MSF designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors MSF, MMR, SB and BS managed the econometric analyses of the study. All authors managed the literature searches, edited the manuscript, read and approved the final manuscript.

Article Information

DOI: 10.9734/ARJASS/2018/38593

ABSTRACT

As retail chain store business is gaining popularity very quickly, people engaged in this sector should pay special attention to the growth of this sector. The present study elucidates the direct and associated factors influencing the growth of supermarket activity in Sylhet district in Bangladesh. Both secondary and primary data were used. Secondary data were collected from published books, various published articles, websites of different superstores etc. Primary data were collected from 100 consumers during the months of September to October, 2016. The study found that several macro and micro economic factors (i.e., age, education and income) have close relation with the growth of supermarket. The macro-economic factors are GDP growth rate, increasing trend of women participation in workforce, FDI and urbanization. The implications and conclusions are discussed.
1. INTRODUCTION

Bangladesh supermarkets have successfully made a breakthrough in the urban lifestyle with the idea of all essential commodities under one roof. From the concept of global retailers such as Wal-Mart, Safeway and Target, some private organizations have established the retail chain store services in Bangladesh. The process of retail modernization has been the subject of a large number of studies. Many have focused on less developed countries (LDCs) [1,2] others, on emerging economies [3,4,5]. The rise in supermarkets was most significant in South Africa, Kenya and Nigeria [6]. Rahimafrooz Superstores Ltd. (RSL) was the first one to launch the first ever retail chain in Bangladesh in the year 2001 [7]. Bangladesh's food retail sector is dominated by traditional shops. Nonetheless, it has shown growth and modernization, keeping pace with overall economic growth, the increase in middle-class consumers, and changes in consumption patterns. The organized retail sector, including supermarkets, remains relatively small, but consumes increasing volumes of imported food products and exhibits the fastest growth [8]. Retail trade is a traditional business in Bangladesh. Its expansion is keeping pace with the country’s population growth and changes in consumption patterns consistent with economic growth. About 30 companies with more than two hundred outlets at a strong rate of 15% annual sales growth are now running in the food modern retail industry in Bangladesh from which turnover has been estimated to be about two percent of food retailing [9]. Little to no market information is available on the retail sector, though industry sources indicate that the size of the food retail sector in Bangladesh could have been $16 billion in 2010, and the number of retail grocery shops could number more than 1 million. Retail chain store is a large source of employment in Bangladesh (12 percent), and together with wholesaling it contributed a combined 14.3 percent to Bangladesh’s GDP in FY 2010-11. Retail and wholesale growth averaged over 7 percent in the last decade [10].

In the meantime supermarket in Bangladesh has proven itself as a highly competitive and unmerciful business place to get into but also highly profitable business to do if one can play it right so did many such as 'Shwapno' with their 70 stores around the country with 30 stores outside Dhaka while sharing the dominance of Dhaka city with giant retail stores as Meena Bazar, Agora and Almas. With the passage of time retail chain stores have been expanded remarkably including small and big ones in Bangladesh as people are becoming time conscious and they do not have enough time to spend for shopping. In the large cities of Bangladesh like Dhaka, it is very difficult to move from one place to another place for shopping purposes due to traffic. Majority of people want to shop all kinds of goods from a particular departmental store at a time so that they can save their time, money and energy. Due to high level of awareness, most of the educated customers are quality conscious and service conscious. So they might want to purchase the goods where they get the quality products, better personnel services and hassle free environment. However, a good number of research works have been performed on the rapid rise of supermarkets in the developing countries [11-16] etc. but there is a dearth of research work on the supermarkets and food retailing in Bangladesh [17-22] etc. Sylhet district was selected because supermarkets grow rapidly in this region over the last few years. The plausible reasons are higher income from foreign remittance, public and private institutions including educational institutions. Therefore, the study was undertaken to identify the direct and associated factors influence the growth of supermarket. It is expected that this study will examine the entire spectrum of the spread of supermarkets that will be helpful for the policymakers to improve the marketing strategies and forecast the future aspect of the supermarkets in the country.

2. REVIEW OF LITERATURE

There is a scanty of literature on factors influencing the growth of supermarket in Bangladesh and abroad. However an attempt has been made to review the available findings. Modern organized food retailing constitutes about 8 percent of Bangladesh’s estimated US$16 billion food retailing sector and is estimated to be growing at 15 percent per year. Overall retailing is growing about 7 percent per year due to both economic growth and urbanization. The top 20 percent of the population in terms of income accounts for 41.4 percent of total consumption, implying modern retail has the potential to quintuple in turnover with time [9]. The impact of growth in the number of supermarkets in South Asian Development Countries (SADC) is that the

Keywords: Factor; growth; supermarket; Bangladesh.
consumers gain from purchasing food products from chain supermarkets rather than traditional market [23]. Consumer choices and the changing food retail market structure, has evaluated the reason behind increasing number of supermarkets in developing countries and revealed that both large and small retailers can survive profitably by segregating their markets on the basis of income groups and their grouping of products [16]. There has been extremely rapid transformation in the past decade of the food retail sector, embodied in the rapid spread of supermarkets, in East and Southeast Asia and Latin America—the emerging markets of the Pacific Rim region [15]. Bangladesh's food retail sector is dominated by traditional shops. Nonetheless, it has shown growth and modernization, keeping pace with overall economic growth, the increase in middle-class consumers, and changes in consumption patterns. The organized retail sector, including supermarkets, remains relatively small, but consumes increasing volumes of imported food products and exhibits the fastest growth [8]. Aga
demand side factors comprise such variables as increase in income per capita, urbanization, share of women in the workforce and growing number of refrigerators ownership. On the supply side the rise of supermarkets was driven primarily by FDI in food retailing [24].

From the above discussion, it is clear that supermarket plays a very important role for the welfare of mass urban and rural people. A very few of the studies are concerned on retail chain store or super shop in Bangladesh. So, it is expected that the present study would be helpful to the owner of super shop, policy makers, extension workers and researchers with a view to taking further plan for supermarket development as well as for carrying out further research.

3. METHODOLOGY

The study was conducted in Sylhet city in Bangladesh. The supermarkets located in Sylhet city were sampled. Sylhet is one of the smallest cities in Bangladesh. Sylhet was selected because it is a fast growing and highly populated urban town and the supermarkets have rapidly spread over the last few years. The large population implies that the city offers a huge market for food commodities compared to other towns. Data were collected from both primary and secondary sources. For primary data, a sample of 100 consumers was selected by using mall intercept sampling technique. The researcher himself collected the primary data through direct personal interview from the respondents during the month of September through October, 2016. Secondary data and other relevant information were collected from supermarkets reports, Journals, publications, Bangladesh Supermarket Owners Association (BSOA) and others. Secondary data include GDP growth rate, employment rate, FDI and urbanization over the year. The collected raw data was carefully checked to detect errors and omissions and to avoid irrelevant information. In order to achieve the objective, the analytical technique used is typically referred to as a logistic regression model.

3.1 Logistic Model

The following Logit model [25] was used to identify the factors associated with the visit of supermarket:

\[
I_i = \ln[P_i / (1 - P_i)] = \beta_0 + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + \beta_5 F_5 + \beta_6 F_6 + \beta_7 F_7 + \beta_8 F_8 + U_i \tag{1}
\]

Where,

- \(P_i\) is the probability of supermarket visit;
- \(F_1 = 1\) indicates more than one time visit in a week;
- \(F_1 = 0\) indicates one time visit in a week;
- \(U_i\) = Probability of supermarket visit;

Independent Variables:

- \(F_1 = \text{Age of the respondent (}\text{P}_1 = 1\text{ indicates active age with job and }\text{P}_0 = 0\text{ indicates active age without job)}\);
- \(F_2 = \text{Sex of the respondent (}\text{P}_1 = 1\text{ indicates male and }\text{P}_0 = 0\text{ indicates female)}\);
- \(F_3 = \text{Education of the respondent (}\text{P}_1 = 1\text{ indicates literate and }\text{P}_0 = 0\text{ indicates illiterate)}\);
- \(F_4 = \text{Occupation of the respondent (}\text{P}_1 = 1\text{ indicates government employee and }\text{P}_0 = 0\text{ indicates self-employed)}\);
- \(F_5 = \text{Income of the respondent (}\text{P}_1 = 1\text{ indicates higher income and }\text{P}_0 = 0\text{ indicates lower income)}\);
- \(F_6 = \text{Spent on food items (}\text{P}_1 = 1\text{ indicates 11-15 percent and }\text{P}_0 = 0\text{ indicates above 15 percent)}\);
- \(F_7 = \text{Household size of the respondent (Categorical)}\);
- \(F_8 = \text{Distance km (Continuous)}\);
- \(U_i = \text{Error term} \).
4. PRACTICAL ASPECTS REGARDING FACTORS INFLUENCING SUPERMARKETS ACTIVITY

This chapter begins with the description of macro variables to find out the causality relation among GDP growth rate, urbanization rate, labor force and employment situation, FDI and supermarket growth. In the later an attempt was undertaken considering the micro variables to examine any statistical relationship between the supermarket visits as a proxy for the growth of supermarket.

4.1 Bangladesh GDP Growth Rate

Bangladesh is considered as a lower middle income economy. Yet, almost one-third of Bangladesh’s 150 million people live in extreme poverty. In the last decade, the country has recorded Gross Domestic Product (GDP) growth rates above 6.8 percent due to development of microcredit, cottage industry, foreign remittance, garment industry etc. Although three fifths of Bangladeshis are employed in the agriculture sector, three quarters of exports revenues come from producing ready-made garments. The biggest obstacles to sustainable development in Bangladesh are overpopulation, poor infrastructure, corruption, political instability and a slow implementation of economic reforms. The GDP in Bangladesh expanded to 7.05 percent in 2016 from the previous year. GDP growth rate in Bangladesh averaged 5.72 percent from 1994 until 2016, reaching an all-time high of 7.05 percent in 2016 and a record low of 4.08 percent in 1999 [26]. From the figure 1, it may be concluded that there might have a positive relationship between GDP growth rate and supermarket growth. The figure shows that the percentage of GDP in Bangladesh is increasing with an increasing rate. As GDP per capita increases, people’s standard of living also increases. On the other continuum, due to increase of GDP, people’s expenditure on quality products increases. People are more conscious about the quality of products. In that case supermarket provides better products and facilities compared to traditional market. People are willing to pay even higher prices for good products. Low-income neighborhoods have half as many supermarkets as the wealthiest neighborhoods and four times as many smaller grocery stores, according to an assessment of 685 urban and rural census tracts in three states. The same study found four times as many supermarkets in predominantly white neighborhoods compared to predominantly black ones [27]. Another multistate study found that eight percent of African Americans live in a tract with a supermarket compared to 31 percent of whites [28].

4.2 Labor Force and Employment Situation in Bangladesh

Bangladesh is a labor surplus country with a population of 156 million. In 1995-1996 population was 122.1 million and labor force was 36.1 million while percentage of labor force in total population was 29.56 percent. With the increase of population share of labor force in total population increased and stood at 38.3 percent and labor force increased to 56.7 million in 2010 while population was 147.7 million. It can be seen from the figure-2 that percentage of labor force had been increased by 57 percent from 1995-96 to 2010. It is observed that since 1995-96 to 2010-11 average annual growth

![GDP growth rate in Bangladesh](Source: BBS, 2015)
of labor force was 2.06 percent. During the same period 1.37 million labors added with labor force. In 1995-96 employed labor force was 34.8 million which increased to 54.1 million in 2010. During the period 19.3 million additional employments were created. As labor participation in the diverse workplace increases over the year, there might be a huge scope for the growth of supermarket in the country. Supermarket not only provides necessary commodities but also a scope for working facilities. As a result people scope for engage themselves in workplace increases and unemployment situation decreases.

4.3 Labor Force Participation

Rate of labor force participation in 1974 was 43.8 percent which stood at 59.3 percent in 2010. It was 15.0 per cent higher than labor force participation of the year 1974. Labor force participation rate is increasing and in 2010 it increased to 59.3 percent. The increase in labor force is mostly due to increase of female labor which increased from 4.1 percent to 36 percent from the year 1974 to 2010. Male labor participation rate fluctuated during the period. Though the economic impacts of food retailers are understudied, we know that grocery stores contribute to community economic development. Analysis of a successful statewide public-private initiative to bring new or revitalized grocery stores to underserved neighborhoods in Pennsylvania provides positive evidence that fresh food markets can create jobs, bolster local economies, and revitalize neighborhoods. The effort has created or retained 4,860 jobs in 78 underserved urban and rural communities throughout the state. Analyses of stores supported by the effort find they lead to increased economic activity in surrounding communities.

From the Fig. 3 it may probably concluded that female participation in diverse sector can play a vital role for the growth of supermarket. The Fig. 3 shows that female participation in work place over the year increasing. This may be due to expansion of female education and their active participation in the decision making power in family. Again self-employment in non-agricultural activities increased due to micro credit of NGOs, cottage industries, handicrafts etc. where females are the main participants.

4.4 Urbanization in Bangladesh

Bangladesh is one of the world's most densely populated country and has also faced rapid population growth throughout the last century although the population growth rate has somewhat decreased to a moderate level in recent times. The country is going to witness a rapid spread of urbanization over the next decade. According to an estimate, by 2020, nearly every other man, woman and child will live in an urban area (World Bank ed., Bangladesh 2020). However, with a proper strategy for growth and employment, this can give rise for job creation in the non-farm sector and thus absorb surplus labor force generating in the agricultural sector. Like many other Asian developing countries, an increasing share of population of Bangladesh migrates to urban centers in search for employment opportunities outside agriculture and into industrial enterprises or the services sector. A historical transition has been taking place during the decade 2000-2010 for low income countries like Bangladesh, since for the first time in history the urban population in this group of countries is growing faster than rural population [29]. The figure 4 shows that the actual scenario of urbanization over the year. The level of urbanization was highest in the census year 2010 and lowest was 1974. From the Fig. 4 it can be said that due to increasing rate of urbanization, the rural marketing system is decreasing. This is because a large portion of the rural people shifts from rural areas to urban areas. For this reason people are trying to purchase their necessities in a single roof. On the other hand, due to increasing rate of urbanization level, the pressure on work places also increases. People are more conscious about their time. People are not interested to spend more time for purchasing commodity from the traditional market. From the above backdrop, it may be concluded that level of urbanization might has positive impact for the growth of supermarket.

4.5 Foreign Direct Investment in Bangladesh

Foreign Direct Investment in Bangladesh increased by 1834 USD Million in 2015. Foreign Direct Investment in Bangladesh averaged 930 USD Million from 2002 until 2015, reaching an all-time high of 1834 USD Million in 2015 and a record low of 276 USD Million in 2004. From the above figure 5 it can be concluded that FDI is
crucial for the growth of supermarket. The figure shows that FDI in Bangladesh over the year increasing. There might be a positive relation with the growth of FDI and supermarket growth. As FDI increases in agricultural sector, there is a huge scope for the employment which in turn increases the per capita income of the peoples, hence increases the demand for supermarket in our country gradually.

![Fig. 2. Labor force and employment situation in Bangladesh](Source: BBS, 2011)

![Fig. 3. Labor Force Participation Rate by Gender](Source: BBS, 2011)

![Fig. 4. Urbanization in Bangladesh](Source: BBS, 2011)
From the above discussion it is clear that GDP, women employment, urbanization and FDI might have a close relation for the growth of supermarket. Now an attempt was undertaken by considering the micro-economic variables i.e., socio-economic variables to examine these variables have any statistical relationship with the visit of supermarket, which in turn ultimately might accelerate the growth of supermarket.

5. RESULTS AND DISCUSSION

Several sets of independent variables were used in different combinations to identify the best fitted equation in each case based on a set of hypotheses in relation to the effect of the micro variables on the supermarket visit of consumers. The econometric analysis was carrying out using the sample of supermarket consumers. The results of logistic analysis are presented in Table 5.

5.1 The Hosmer- Lemeshow Goodness of Fit Test

The Table 2 shows that test statistic is 10.825 and the p-value is 0.212 which is greater than 0.05 (level of significance), so we do not reject the null hypothesis that there is no difference between the observed and predicted values, i.e. the model appears to fit the data reasonably well.

5.2 Measures of the Proportion of Variation Explained

SPSS gives two variations on this, Cox’s and Snell’s $R^2$ and Nagelkerke’s adjusted $R^2$. Nagelkerke’s adjusted $R^2$ is an improvement over Cox and Snell’s $R^2$ that can attain a value of one when the model predicts the data perfectly. The values for these two statistics are shown in the model summary table 3. The Cox and Snell’s $R^2$ is 0.588 and Nagelkerke’s $R^2$ is 0.797. The interpretation is that the model explains about 80 percent of the variation in the data.

5.3 Classification Table

The overall percentage of correct prediction is 92 percent by this model. Generally the higher the overall percentage of correct predictions the better the model.

5.4 Test of Significance of Logistic Regression Coefficients and Interpretation of Odds Ratio

The Logistic regression analysis is shown in the Table 5. The Table 5 revealed that the variables in the equation along with an associated p-value. The p-value for the coefficient corresponding to the variables age, education and income is less than 0.5, 0.01 and 0.1 respectively. So these variables are considered as significant predictor, as expected.

5.4.1 Age of the respondent ($F_1$)

As age increases, prepared food purchases decrease [30-34]. Odds ratio of age coefficient is 5.44 indicates that, holding other variables as a fixed value, if age of the respondent increased by 1 percent, the probability of supermarket visit increased by 4.44 percent per week. Here the null hypothesis is accepted at a significance level 10 percent. There is a positive relationship
Table 1. Description of the dependent variable and independent variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Types</th>
<th>Values</th>
<th>Hypothesized sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket visit</td>
<td>Dummy</td>
<td>1 = More than one time visit and 0 = One time visit</td>
<td>+</td>
</tr>
<tr>
<td>Age of the respondent</td>
<td>Dummy</td>
<td>1 = Active age with job and 0 = Active age without job</td>
<td>+</td>
</tr>
<tr>
<td>Sex of the respondent</td>
<td>Dummy</td>
<td>1 = Male and 0 = Female</td>
<td>+</td>
</tr>
<tr>
<td>Education of the respondent</td>
<td>Dummy</td>
<td>1 = Literate and 0 = Illiterate</td>
<td>+</td>
</tr>
<tr>
<td>Occupation of the respondent</td>
<td>Dummy</td>
<td>1 = Government employee and 0 = Self-employed</td>
<td>+</td>
</tr>
<tr>
<td>Income of the respondent</td>
<td>Dummy</td>
<td>1 = Higher income and 0 = Lower income</td>
<td>+</td>
</tr>
<tr>
<td>Spent on food items</td>
<td>Dummy</td>
<td>1 = 11-15 percent and 0 = Above 15 percent</td>
<td>+</td>
</tr>
<tr>
<td>Household size of the respondent</td>
<td>Categorical</td>
<td>Categorical</td>
<td>+</td>
</tr>
<tr>
<td>Distance</td>
<td>Continuous</td>
<td>Km.</td>
<td>+</td>
</tr>
</tbody>
</table>

among the age of respondent and supermarket visit, which in turn growth of supermarket. As age increases people find it easier to buy necessities under a single roof.

Table 2. Hosmer and Lemeshow Test

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10.825</td>
<td>8</td>
<td>0.212</td>
</tr>
</tbody>
</table>

Source: Author’s estimation, 2016

5.4.2 Sex of the respondent (F_2)

Odds ratio of sex of the respondent is 0.915 implies that, holding other variable as a fixed value, if sex of the respondent increased by 1 percent, the probability of supermarket visit increased by 0.085 percent per week. Here the null hypothesis is rejected means that the female visit the supermarket more compared to male. One of the important reasons may be female feel more comfortable to purchase their necessities from hassle free environment. In this regard supermarket is the best option compared to the traditional market.

5.4.3 Education of the respondent (F_3)

Odds ratio of education coefficient is 3.33 indicates that, holding other variables as a fixed value, if education of the respondent increased by 1 percent, the probability of supermarket visit increased by 2.33 percent per week. Meaning that the educated people visit the supermarket more compared to others. Here the null hypothesis is accepted at 1 percent level of significant. The educated people are highly conscious about their eating habits. They think supermarkets provide better products compared to traditional market especially fish, meat, vegetables etc.

5.4.4 Occupations of the respondent (F_4)

Odds ratio of occupation coefficient is 2.307 refers to, holding other variable as a fixed value, if occupation of the respondent increased by 1 percent, the probability of supermarket visit increased by 1.307 percent per week. Here occupation is statistically insignificant but consistent with the expected sign, so the null hypothesis is rejected. This implies that occupation has less significant impact for visiting the supermarket, hence the growth of supermarket.

5.4.5 Income of the respondent (F_5)

Supermarkets first open in higher-income areas and later in lower-income ones. This pattern was observed in many developing economies [35] Higher-income consumers getting higher benefits from switching from traditional stores to supermarkets. The underlying reason is their higher opportunity costs of time, more storage space and transportation possibilities enabling less frequent shopping for food. In contrast, lower income consumers, who purchase small amounts and shop frequently, get lower benefits from shopping in supermarkets. Odds ratio of
Table 3. Model summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox and Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>45.070</td>
<td>0.588</td>
<td>0.797</td>
</tr>
</tbody>
</table>

Source: Author's estimation, 2016

Table 4. Classification table

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visit</td>
<td>One times visit</td>
<td>More than one times</td>
</tr>
<tr>
<td>Step 1</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>more than one times visit</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author's estimation, 2016

Table 5. Logistic regression analysis output

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.69</td>
<td>0.935</td>
<td>0.070*</td>
<td>5.442</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.08</td>
<td>0.973</td>
<td>0.928</td>
<td>0.915</td>
</tr>
<tr>
<td>Education</td>
<td>3.33</td>
<td>1.025</td>
<td>0.001***</td>
<td>28.110</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.83</td>
<td>0.897</td>
<td>0.351</td>
<td>2.307</td>
</tr>
<tr>
<td>Income</td>
<td>2.03</td>
<td>0.993</td>
<td>0.041***</td>
<td>7.616</td>
</tr>
<tr>
<td>Spent on food items</td>
<td>-0.20</td>
<td>0.862</td>
<td>0.814</td>
<td>0.816</td>
</tr>
<tr>
<td>HH</td>
<td></td>
<td>0.349</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HH (1)</td>
<td>-15.81</td>
<td>22715.49</td>
<td>0.999</td>
<td>0.000</td>
</tr>
<tr>
<td>HH (2)</td>
<td>-17.57</td>
<td>22715.49</td>
<td>0.999</td>
<td>0.000</td>
</tr>
<tr>
<td>HH (3)</td>
<td>3.25</td>
<td>25027.592</td>
<td>1.000</td>
<td>25.780</td>
</tr>
<tr>
<td>Distance (Km)</td>
<td>-0.15</td>
<td>0.38</td>
<td>0.690</td>
<td>0.859</td>
</tr>
<tr>
<td>Constant</td>
<td>14.21</td>
<td>22715.49</td>
<td>1.000</td>
<td>1476312.81</td>
</tr>
</tbody>
</table>

Source: Author’s estimation, 2016

***, **, * indicates significant at the level of 1 percent, 5 percent and 10 percent respectively.

income coefficient is 7.616 indicated that, holding other variables as a fixed value, the supermarket visit will increase 6.616 percent per week that means those people whom income is higher visit the supermarket more compared to others. Here the null hypothesis is statistically significant 0.041 at 5 percent level of significance. Higher income people are willing to pay higher prices for the best quality of products. In that case, they do not concern about the product prices. They think supermarket offer better quality of products compared to traditional market which may be the most important factors for increasing the frequency of supermarket.

5.4.6 Household size of the respondent (F7)

Odds ratio of household size of the respondent is statistically insignificant (0.349) that means size of the household has no impact on supermarket visit. Here the null hypothesis is rejected because the higher the size of the household requires more money to maintain their living standard. In the developing country per capita income and consumption is relatively lower for large household compared to developed countries. From the above findings, it can be concluded that, larger household size may be a constraints for the growth of supermarket.

5.4.7 Distance (F8)

This scenario addresses the spatial accessibility of food outlets and its impact on consumer’s format choice decision. Low accessibility of supermarkets, reflected in relatively long travel time, may restrict their adoption. Specifically, studies in developing economies reported cases where in spite of easy accessibility to supermarkets consumers prefer to continue and purchase their food in traditional formats. Many researchers attributed supermarkets’ failure in these cases [36,4] to economic factors: higher-income consumers getting higher benefits from switching from traditional stores to supermarkets. Odds ratio of distance coefficient is 0.859 indicates that, holding other variables as a fixed value, the supermarket visit will increase 0.141 percent per week. Here distance is statistically insignificant (0.890) means that as distance
increases supermarket visit decreases. People tend to buy necessaries from the nearest place because of their time constraints. Greater distance may be a crucial factor for decreasing the visit of supermarket which in turn the growth of supermarket.

6. CONCLUSION

Supermarkets are newly established market phenomenon in our country. These provides a variety of goods and services under one roof. As the people are becoming time conscious and they do not have enough time for shopping, urban and semi-urban consumers prefer to buy all kinds of goods from the superstores. Moreover, due to high level of awareness most of the educated customers now want to purchase the goods from a place where they find disruption free shopping environment. All these facilities are being offered by the supermarkets. The results showed that, several macro-economic variables as well as some socio-economic variables at micro level are positively related with the growth of supermarket. The macro-economic variables include FDI, women employment, urbanization and GDP per capita. In addition, to the micro economic variables such as age; education level and income have direct relation on the growth of supermarket in Bangladesh. Thus, there is a need to understand the increasing trend of food retailing under supermarkets. Based on this the following recommendations were made; Develop forward and backward linkages (arrangements) with the farmers, install number of outlets at different places of the city, as income (also, urbanization, lifestyle etc.) of the consumers increases and the trend is expected to continue the government intervention and logistic supports including facilitations should be made available for expansion of retail chain store. The main limitations of the studies are, the retailers are spread all over the country but only Sylhet city has been taken into consideration. For collecting data from all over the country, a large amount of financial resources and huge time are required. The findings of the current study may be applicable only to the retailers (Super markets). Another limitation is that it was a micro level study based on primary and secondary data, so it may not be the representative of the situation of the country as a whole.

ACKNOWLEDGEMENT

Author is really grateful to Supervisor Mohammad Jahangir Alam, Swarup Barua and others authors for their scholastic guidance because this research was conducted based on researcher own funding.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

People’s Republic of Bangladesh, Dhaka; 2015.


18. Seiranevoda. The factors that Influence the consumer in choosing departmental store in Bangladesh; 2011.


24. Emongor AR, Kirsten J. Supermarket expansion in developing countries and their role in development: Experience from the southern african development community. The International Association of Agricultural Economists Conference, Beijing; 2009.


