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Factors Affecting Consumers' Purchase Decisions of Packaged Food: A Study on Consumers of Dhaka City

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Abstract: *The major focus of the study is to understand the purchase decision of the consumers, which directly influence them to choose a specific packaged food item. Theoretical insights explain that consumers mainly put their emphasis on price, color, nutritional labeling, promotional attributes, brand, country of origin, taste and manufacturing and expire date while purchasing their packaged food product. Factor analysis has been used to have the rank order of the factors. Factors have been selected through in-depth discussion with five industry experts and focus group discussion (FGD) with ten consumers of packaged food products in Dhaka city. Then 300 consumers were surveyed through structured questionnaire using clustered convenience sampling technique. For checking the cross validation of the factors, Exploratory Factor Analysis has been used as analytical tool for the study. Results reveal that selected factors has been abridged to three main categories (Sales deriving factors, informational factors and taste related factors) which influence the consumption pattern of packaged food product in Bangladesh.*

Keywords*:* Packaged food, Purchasing pattern, Bartlett's test, Bangladesh

1.0 INTRODUCTION

Packaging of food industry defer significantly from that of the other industry like fast moving consumer goods (FMCG). For FMCG, packaging itself represents exclusive value to offerings (Underwood et al,. 2001). Consumers/customers can differentiate a particular brand from wide range of similar products, which ultimately stimulate the buying behavior of the customers (Wells, Farley & Armstrong, 2007). For example, in Srilanka, nutrition label with relevant nutrition information onto the package food item is considered as one of the key indicators of product quality to consumers, which play a key role behind the willingness to pay for that (Prathiraja and Ariyawardana, 2003). Analyzing the Indian consumer base, it has been found

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that the consumers of packaged processed food prioritize taste, cleanliness, manufacturing and expiry date, vegetarian and non-vegetarian information, nutritional information while having the purchase decision (Zia, 2017).

According to Prendergast and Pitt (1996) consumers of food products pivotally put emphasis on the packaging of the food products at point of sales (POS) and they also consider colour, shape, technology of package and information written on the package as the most determining elements of food purchase decision (Warlop et al., 2005). According to Woodside and Motes (1979) the customers have their purchase decision based on nine stages and for decision making style, size and brand are mostly prominent factors.

The growing trend of proceed food consumption in all over the world indicates the significant contribution of processed food industry to both developed and developing economy (ADB, 2009). It has been predicted that the Asia- Pacific region will have a market of packaged food with the accelerating growth because of the increased cognizance of consumer and thus habituating with packaged food. Moreover, it has been estimated that total earning of the packaged food manufacturers will be 3.03 trillion dollars within the period of 2015 to 2020 in this South Asian market (Allied Market Research, 2015).

Bangladesh, as part of South Asian region, is experiencing the significant decline in the poverty rate, increased employment and subsequently enhancing health and education accessibility, thus, has been elevated as one of the middle-income countries from poor standing one (ADB, 2016). As it's middle-income group of people seems growing more than 3 crores, Bangladesh is now pursuing the growing economy and the industry related with processing of food is also expecting positive growth in the near future (Katalyst, 2016). From the researcher's point of view, it is perceived that the growing economy have rapid urbanization, increased women's involvement in workforce, unavailability of domestic help, small nuclear families which are the direct reasons for growing consumption of packaged food.

The consumers know that in value chain, processing of the food with no packaging can be compromised in quality as it can be adulterated by direct interaction with biological, chemical and physical contaminants (Food Packaging and Shelf Life). Packaged foods are universally cheaper and less healthy than fresh (Organic and homemade) food. In recent time, it has been found that the consumer base of the Bangladeshi food market has gone through more diversification than the past and thus the product range evolved drastically over the last decade (The Daily Star, 2014). With the increased diversified food market, consumers of Bangladesh have started to focus on the quality and health issue of the processing and procurement of the packaged food like as the case of India where the consumers base assert that their preferences for food products are significantly depends on the price,

variety, packaging and non-seasonal availability along with the cleanliness, freshness, etc. (Ali et.al., 2010). Though, analyzing the industrial aspect of the manufacturing organization, it has been found that major determinants that contribute to the growth of packaged food industry are functionality, convenience and indulgence (Ahmed, A., Ahmed, N. & Ahmed, S. 2005).

As there exists no academic evidence of the critical factors of the packaged food industry of Bangladesh, this paper investigates the most imperative factors deriving the decision of consumers of packaged foods products. Before conducting the research on field, it has been tried to scrutinize the theoretical background of research proposition based on previous scholarly works. As the theoretical framework for Bangladeshi context on this proposition seems unavailable, the variables and theoretical framework has been designed based on the global scholarly works. While conducting focused group discussion with individual consumers, key informant interview with regulatory authority and discussion with the private sector service providers of packaged food, it has been found that there are so many factors influencing the purchase decision of the consumers of the food product industry, though all the stakeholders didn't put emphasis with similar weight to all of the variables affecting the purchase decision of the consumers. In context of Bangladesh, it has been found that the literature base of packaged food preferences of the consumer's lacks proper background works.

Therefore, this paper tries to investigate the key determinants of the consumer's choice towards packaged food products in Bangladesh. Based on the academic papers endeavoring to point out the deriving factors of the consumer choice toward packaged food product and considering the valued insight from the stakeholders, this paper have scrutinized the most determining factors of packaged food industry which leads the consumers to have a purchase decision. This paper also provides the detail consumer insights for manufacturers of packaged food product to design their packaged food product according to consumers' preference.

2.0 LITERATURE REVIEW

Over many years, researchers have tried to estimate the different significant features of the products which affects the purchasing decision of consumers. (Enneking et al., 2007; Green and Srinivasan, 1978, 1990). Now a day's packaging is being considered as one of the key parts of the product and the consumers of packaged food product firstly interact with the brand through packaging of the product (Rundh, 2005). Packaging is also important for playing a dominant role to protect the product from eternal distractions, affecting the health safety and the quality of the food product and it also plays a key role by protecting packed food from damage while transportation, storage and dispensing (Wyrwa and Barska, 2017; Jahre and Hatteland, 2004).

Rettie and Brewer (2000) stated that packaging of the product is considered as primary communication and promotional tool for any brand. Silayoi and Speece (2004) assert that shelf display of packages significantly affects the consumer decision making process and the package design also influences the response of the consumers of the product.

Consumers of packaged food industry put emphasis on a wide range of factors within the package and the product. Some consumers are very much keen to have the nutritional information on the leveling of the packaged food product (Coulson, 2000).

Consumers of processed food product put emphasis on many critical factors as price, packaging, promotional schemes, cleanliness, brand, nutritional information, manufacturing and expiry date, vegetarian and non-vegetarian information, eco-labeling, country of origin etc. (Ali & Kapoor, 2008; Ali et al., 2010; Bogue, Coleman, & Sorenson, 2005; Duarte, Raposo, & Ferraz, 2013; Fenger, Aschemann-Witzel, Hansen, & Grunert, 2015; Giancristofaro & Bordignon, 2016; Goyal & Singh, 2007; Gupta & Jain, 2014; Hoffmann, 2000; Kathuria & Gill, 2013; Kumar & Kapoor, 2015; Rada, 1998; Schnettler et.al., 2015; Srivastava et al., 2013). In some cases, consumers seem indifferent to distinguish between the package and product (Ahmed, A., Ahmed, N. & Ahmed, S. 2005). Prathiraja and Ariyawardana (2003), state that consumers seek food products having nutritional information on to the product package.

In case of Trinidad and West Indies, it can be depicted that 41.5 percent consumers of food product put their emphasis on the information on the label of product where 22 percent consumers seek brand value or product popularity and 24.4 percent consumers prefer quality and type of packaging along with the consumer base of 12.2 percent who are fond of visual impact of the product package (Peters-Texeira and Badrie, 2005). Alice (2006), in his study established a significant relationship between impulse buying behavior of the consumers and promotional events (discount, coupon and free product), credit card, window display. The preferences of the consumers of the packaged food industry in Srilanka significantly depend on the nutritional level onto the package of the food product and the consumers also assert that the nutritional level on to the product ensures the product quality (Prathiraja and Ariyawardana, 2003).

According to Prendergast and Pitt (1996) consumers of packaged food products pivotally put emphasis on the packaging of the food products and they also consider colour, shape, technology of package and information written on the package as the most determining elements of food purchase decision (Warlop et al., 2005). Consumers in European Union prefer informational labeling on to the quality food products and drinks among the wide range of the product variety (Dimara & Skuras, 2005). By analyzing the

most concerned population of health and weight control in Spain, it has been found that convenience, price and sensory appeals seem most determining factors for choosing food items (Carrillo et al., 2011). Based on the academic evidence from many researchers it can be conferred that the consumers of packaged food industry mainly put their emphasis on price, colour, nutritional labeling, promotional attributes, brand, country of origin, taste and manufacturing and expire date onto the packaged food products when they make a choice to have a packaged food product.

3.0 OBJECTIVES

The paper aims at discovering the most important factors which are directly influencing the purchasing decision of the customers/consumers in the packaged food market in Bangladesh.

4.0 METHODOLOGY

The study focuses on overall market of the packaged food industry in Dhaka city. As it is the most important business hub for all the packaged food manufacturing companies. FGD has been conducted to validate and contextualize the factors identified from research done in other countries. Factors of the study have been selected through in-depth discussion with five industry experts and focus group discussion with ten customers of packaged food. Factors taken from FGD has been cross checked with literature as this study initiates a new aspect of preferences regarding packaged food consumptions.

Ultimately factors that are identified and considered as important are following:

Factors	Identifications
Flavour/Taste	F1
Price	F2
Manufacturing date	F3
Nutritional Ingredients	F4
Promotional Scheme	F5
Brand	F6
Packaging	F7
Use of Natural Food Colours	F8
Advertisement	F9
Country of Origin	F10

Data Collection and Sampling Methods

To accomplish our research objectives, researchers have collected primary data from individual consumers through survey. By using Convenience sampling method, primary data have been collected from 300 respondents

doing face to face interview through structured questionnaire based on locational convenience. The response has been collected through close ended questions and Likert-scale rating.

The secondary data have been collected from annual reports of different packaged food manufacturing companies, different articles on packaged food industry and several previous research on this sector to get an overall idea about the packaged food sector in Dhaka city.

As the targeted base of the respondents group seems scattered throughout the data collection area, researchers have divided the study area in 25 clusters. After segregating the study area, five clusters have been selected and 300 consumers from those clusters have been interviewed with intercept survey.

Data Analysis

The analysis is divided into two different segments. First segment leads descriptive statistics to summarize and describe data and also measures the central tendency (average) as well as dispersion (scatteredness of data from the central tendency).

In subsequent segment, Factor analysis has been used to describe variability among observed and correlated variables. For data collection and compilation Microsoft excel has been used and for factor analysis SPSS has been used.

Factor Analysis

Factor analysis is a generic term that is used to describe a number of methods designed to analyze interrelationships within a set of variables or objects (resulting in) the construction of a few hypothetical variables/objects (Reyment & Jvreskog, 1996).

The generalized factor analysis model can be expressed as (Malhotra, 2006):

$$\mathbf{X_i = A_{i1}F_1 + A_{i2}F_2 + A_{i3}F_3 + \ldots + A_{im}F_m + V_iU_i}$$

Whereas,

X_i=i^{th} standardized variable

A_{ij}= Standardized multiple regression coefficient of variable i on common factor j

F_i= Common factor

V_i= Standardized regression coefficient of variable i on unique factor j

U_i= The unique factor for variable i

m= The number of common factors

The unique factors are uncorrelated with each other and with the common factors. The common factor themselves can be expressed as linear combination of the observed variables.

$$\mathbf{F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \ldots + W_{ik}X_k}$$

Whereas,

F_i= Where Estimate of ith factor

W_i= Weight or factor score coefficient

K= Number of variables

It is possible to select score coefficients so that first factor accounts for the highest variance in the data, the second factor the second highest, and so on subject to being uncorrelated with each other.

As the objective of the research is the cross validation of earlier reported factors, Exploratory Factor Analysis seems most applicable analysis for the study. The study has followed the EFA to determine the number of factors to retain for subsequent rotation.

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

KMO & Bartlett's Test has been recommended for measuring sampling adequacy where variable case to variable ratio is analyzed. Score of KMO varies between 0.00 to 1.00, 0.6 score seems well accepted index in any data set. Researchers also recommended that, KMO should be greater than 0.50. If the score is less than .05, then the data sets are not eligible for doing factor analysis (Cagley & Kress 2015).

By analyzing the validity of data set and suitability of responses, Bartlett's Test of Sphericity defines the significance of the study. For the suitability of Factor Analysis, it is recommended that result of Bartlett's Test of Sphericity cannot be more than 0.05. (Snedecor & Cochran, 1989). From the above discussion the following hypothesis can be stated as

Null Hypothesis: The variables are orthogonal

Alternate Hypothesis: The variables are diverse significantly

5.0 Results and Discussion:

From the descriptive statistics it can be inferred that the response of the consumers about flavor and manufacturing date seems not to vary significantly than that of the mean value and it can also be concluded that the consumer response varies significantly in favor of use of natural food colors.

Analyzing the mean value, it has been found that the consumers put more emphasis on flavor and manufacturing date with a value of 4.2 and 4.6 and they are reluctant to have emphasis on promotional scheme and advertisement than all other variables with a value of 3.04 and 3.15.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.839	.835	10

Table 2: Descriptive Statistics

Variables	N	Min	Max	Mean	Std. Dev
F1	300	1.00	5.00	4.2033	0.95132
F2	300	1.00	5.00	3.9067	1.12048
F3	300	1.00	5.00	4.6033	0.83365
F4	300	1.00	5.00	3.8333	1.20154
F5	300	1.00	5.00	3.0433	1.22739
F8	300	1.00	5.00	3.5300	1.38884
F9	300	1.00	5.00	3.1500	1.29347
F10	300	1.00	5.00	3.4333	1.30046
Valid N (List Wise)	300				

Source: Researchers own calculation

For measuring internal consistency, reliability is usually tested using Cronbach's alpha reliability statistics. The coefficient of Cronbach's alpha for the ten items has been found .839 which indicates that there exists high internal consistency and the value seems quite higher than the acceptable level as, in general, the rule indicates 0.6-0.7 is the acceptable level of reliability (Ursachi, 2015).

According to the literature review, the threshold of variable loading has been fixed at 0.40 and the reasonable deviation of the loadings of .30 (Field, 2013). Analyzing the results of the paper, it has been found that brand value (F6) and packaging (F7) of product have been found to have cross load and the deviation of the loadings seems less than .20, so these two variables need to be excluded from the model. As a result, final output of the model turns out with 8 variables to exclude cross load from the analysis.

Table 3: Correlation

		F1	F2	F3	F4	F5	F8	F9	F10
F1	Pearson Correlation	1	0.156**	-0.054	0.056	0.262**	0.156**	0.049	0.037
F2		0.156**	1	0.311**	0.291**	0.385**	0.298**	0.291**	0.299**
F3		-0.054	0.311**	1	0.505**	0.095	0.350**	0.111	0.196**
F4		0.056	0.291**	0.505**	1	0.377**	0.420**	0.367**	0.511**
F5		0.262**	0.385**	0.095	0.377**	1	0.340**	0.468**	0.441**
F8		0.156**	0.298**	0.350**	0.420**	0.340**	1	0.352**	0.324**
F9		0.049	0.291**	0.111	0.367**	0.468**	0.352**	1	0.599**
F10		0.037	0.299**	0.196**	0.511**	0.441**	0.324**	0.599**	1
** Correlation is significant at the 0.01 level (2-tailed).									

Source: Researchers own calculation

From correlation matrix, the paper investigates the cross correlation between the variables. By analyzing correlation matrix, it is evident that flavor of the

product is significantly correlated with product price, promotional scheme and the use of natural food color, price of the product shows positive correlation with all other variable of the study, manufacturing date seems to have significant correlation with price of the product, nutritional ingredient, use of natural food colors and country of origin.

With the value of Pearson correlation, it can also be said that nutritional ingredient and country of origin have positive correlation with all the variables except flavor of the product. In contrast, natural food color seems to have significant positive correction with the entire variables of the paper. And finally, advertisement is not correlated with the flavor and manufacturing date.

Table 4: KMO and Barlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.764
Bartlett's Test of Sphericity	Approx. Chi-Square	624.068
	df	28
	Sig.	0.000

Source: Researchers own calculation

From the result of KMO Test, it has been found that the value is 0.764 which is clearly above from acceptance level of 0.50. The score indicates that the data set passes the measure of appropriateness and is eligible for factor analysis. It also explains that sample is 76.4% error free and 23.6% sample can be with some error. It is evident from Bartlett's test of Sphericity that the strength of relationship among variables is strong.

The result of KMO and Bartlett's test suggest continuing factor analysis for the data. Chi-square test result (624.068 with significance level 0.000) implies the rejection of null hypothesis which indicates a significant difference between the factors affecting brand selection decisions. This states that the variables are correlated and suitable for structure detection and the factor analysis can be useful for this data set.

Table 5: Communalities

Variables	Initial	Extraction
F1	1.000	0.828
F2	1.000	0.450
F3	1.000	0.831
F4	1.000	0.662
F5	1.000	0.655
F8	1.000	0.499
F9	1.000	0.748
F10	1.000	0.737
Extraction Method: Principal Component Analysis.		

Source: Researchers own calculation

"The Kaiser Criterion is said to be reliable when the averaged extracted communalities are at least more than .70 when there are less than 30 samples and the averaged extracted communalities are equal or above .60 and the sample size is above 250 cases" (Cerny & Kaiser,1977, Field, 2009).

Communality of each statement refers to the variance being shared or common by other statements. Table 5, explains that communality for each factor is 1.0. So, Kaiser Criterion is reliable. But it seems that price of the product and use of natural food color have extracted value of .450 and .499 which is less than the standard of .6 for 300 samples.

Table 6: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.159	39.486	39.486	3.159	39.486	39.486	2.185	27.315	27.315
2	1.211	15.141	54.627	1.211	15.141	54.627	1.958	24.478	51.793
3	1.040	12.994	67.621	1.040	12.994	67.621	1.266	15.828	67.621
4	0.737	9.208	76.829						
5	0.619	7.740	84.569						
6	0.502	6.271	90.840						
7	0.402	5.030	95.871						
8	0.330	4.129	100.000						

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Source: Researchers own calculation

The number of significant factors can be determined by 'Total Variance Explained' table. For the interpretation of the results, only extracted and rotated value seems meaningful. The arrangement of the factors has been done on the basis of highest loadings of explained variance.

Total variance explained matrix also tests the common factor bias of the framework. It has been found that the loading of the variance seems 39.49 percent for factor 1, 15.141 percent for factor 2 and 12.99 percent for factor 3. So it is evident that none of the single factor has variance loading of more that 50 percent and it can be concluded that the variance loadings are free from common factor bias.

The Extraction Sums of Squared Loadings is identical to the Initial Eigen values except factors that have eigenvalues less than 1 are not shown. From the results it is evident that rotation loading has been presented after the Eigenvalues and variance. The Rotation Sums of Squared Loadings show the eigenvalues and variance after rotation. To determine the number of factors which are significant for the study, rotated eigenvalues and scree plot have been used. From the result of total variance explained, it can be stated that three variables seem to have initial Eigen value of more than 1 and these three variables explain 67.621% variation of the total variance. From analyzing the results, it has been found that 8 factors have been concentrated to 3 factors comprising 67.621% of the total variance.

Figure 1: Scree Plot

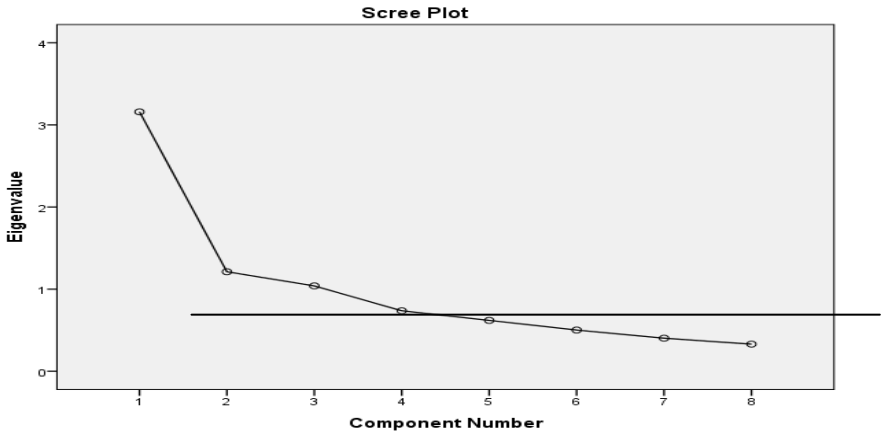

Figure 1 shows the eigenvalue based on the factor number. It also portrays that the value of first three component have the value of more than one and the remaining components (4 to 8) have eigenvalue less than the significant level one and shows almost a flat line which infers that these factors are accounted for small amount of variation.

Table 7 reports the factor loadings for each variable on the unrotated components or factors. Each number represents the correlation between the item and the unrotated factor. As the values represent the correlation among variables, the values are supposed to be between -1 to +1. This correlation has been used to formulate an interpretation of the factors or components. In this component matrix all loadings less than 0.4 (absolute value) has been suppressed to make the interpretation easier.

Table 7: Component Matrix

Variables	Component		
	1	2	3
F1	0.210	0.618	0.634
F2	0.599	0.029	0.301
F3	0.496	-0.690	0.330
F4	0.746	-0.325	0.014
F5	0.691	0.421	-0.014
F8	0.658	-0.111	0.232
F9	0.701	0.228	-0.452
F10	0.743	0.079	-0.423
Extraction Method: Principal Component Analysis. a. 3 components extracted.			

Source: Researchers own calculation

The matrix shows that promotional scheme, advertisement, and country of origin contribute to component 1 while nutritional ingredient, price of the product, manufacturing date, use of natural food color contributes to component 2 and only flavor of the product contributes to component 3.

Table 8: Rotated Component Matrix

Variables	Component		
	1	2	3
F1	-0.028	-0.015	0.909
F2	0.265	0.482	0.384
F3	-0.061	0.903	-0.110
F4	0.430	0.690	-0.014
F5	0.649	0.153	0.459
F8	0.304	0.583	0.258
F9	0.858	0.107	0.030
F10	0.822	0.243	-0.040
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Source: Researchers own calculation

Pattern Matrix identifies the pattern followed by the factors to the three extracted components. Component 1 includes promotional scheme, advertisement and country of origin which can be determined as the sales deriving factors.

Component 2 includes nutritional ingredient, price of the product, and manufacturing date, use of natural food color which can be determined as informational factors and component 3 includes flavor of the product which can be termed as taste related factor.

Component 1:

Sales deriving factors leads to generate sales growth by gaining consumer attention through promotional scheme and advertisement and in some cases country of origin derive customer to have a packaged food product in Bangladesh.

Component 2:

Informational factor motivates consumers of packaged food product intrinsically by having nutritional ingredient information, price of the product and manufacturing date on the product packaging.

Component 3:

Taste related factors motivate consumer to stimulate their repeated purchase behavior for a particular packaged food product from a wide variety of available product range.

The findings of Kiran and Sethia (2015) also makes similar conclusion. In rural and urban areas of Haryana, consumer preferences of processed food industry mainly can be divided into three major principal components. First principal component covers the cleanliness of the storage facility, fascination towards the branded food outlets (McDonalds, KFC etc.) and availability of the shopping malls. Second principal component engulfs the advertisement efforts, nutritional values and cleanliness of the product and storage facility. From the findings represented by Ali etal. (2010), it has extracted five sets of related factors from 17 attributes. They presented, in an emerging economy, convenience as the highest loaded factor and then other value addition services, enchantment for children at the marketplace, basic amenities at the marketplace and availability and affordability attributes of a marketplace seems also critical factors for influencing decisions of the customers of food products.

5.0 CONCLUSION

The paper investigates the most influencing factors of consumption pattern of packaged food products in Bangladesh. While collecting data from 300 respondents of Dhaka city, major 10 variables, backed by literature review, have been scrutinized to have the directly influential factors for consumer decision process.

By analyzing the response pattern, it can be inferred that manufacturing date onto the product package is more preferred factor than taste of the product or nutritional ingredient. From KMO and Barlett's Test the extracted value is 0.764 which is more than the required value of 0.50 where the score implies the appropriateness of the data set for having factor analysis. Communality test it shows that all the variables have value of at least 0.60 which is required for the sample size of 250 or more. From variance explained matrix, it is evident that ten factors can be concentrated to 3 factors comprising 67.621% of the total variance.

Growing trend of economy has been creating satisfactory disposable income group as well as health conscious people, who are demanding more hygienic and healthy product specially in fast moving city.

Local and multi-national companies (MNCs) are trying to harvest the benefits of consumers shifting behavior and their ability of buying quality food items, by investing in packaged food industry.

Finally, the component matrix suggested three main factors (Sales deriving factors including promotional scheme, advertisement, county of origin; informational factors including price, manufacturing dates, nutritional ingredients and use of natural food colors; taste related factors including flavor of the products) influencing the consumption pattern of packaged food product in Bangladesh. The paper also endeavors to have some consumer insights for manufacturers of packaged food product in Bangladesh and the paper will guide them to design their packaged food product according to consumers' preference. The study is conducted only within Dhaka city but it may lead to more specific customer preferences if it can cover the whole country. Moreover, this primary research has created a wide range of scope for further research on the quality requirements for packaged food products and the buyers' awareness towards the hygienic and highest quality of packaged food in Bangladesh.

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Appendix: 1

Table 1: Rotated Component Matrix (Before Correcting Cross Load)

	Component		
	1	**2**	**3**
F1	-.027	-.056	.886
F2	.204	.377	.470
F3	-.068	.911	-.043
F4	.413	.690	.042
F5	.646	.137	.477
F6	.553	.555	.112
F7	.548	.610	.114
F8	.270	.533	.319
F9	.838	.088	.067
F10	.812	.241	-.002
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 4 iterations.			

Source: Researchers own calculation

Appendix: 2

Table 2: Characteristics of the consumer

Characteristics	**Response**
Sample size (number)	300
Gender (%)	
Male	63%
Female	37%
Age (%)	
< 18	2%
18-25	77%
26-35	14%
36-50	6%
50>	1%
Family Member (%)	
1	2%
2	4%
3	13%

4	34%
5	24%
5>	23%
Income	
<15,000	25%
15,000-30,000	16%
30,001-45,000	19%
45,001-60,000	20%
60,000>	20%
Purchase Pattern	
Cake	21%
Frozen Foods	18%
Juice	11%
Noodles	36%
Soup	14%
Source of Purchasing (nos)	
Neighborhood Grocers	171
Super-shops	94
Wet Market Grocers	35