

The Impact of Modern Retailing on Urban Consumers' Buying Behavior towards Agro-Based Products in Dhaka City

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Abstract: The necessity of modern retailing practices regarding marketing and sales of agro-based products in Bangladesh has resulted in enormous growth over the last couple of years. The study explored the urban consumers' buying behavior from the super shops, online portals, retail outlets, and traditional marketplaces in the context of Dhaka, Bangladesh. It examined how the modern retailers have applied various new propositions about the marketing of agro-based products concerning value-added services; market operations and offerings; future market prospects, etc. Under convenience sampling technique, around 162 responses were utilized to gather reliable data. The data was collected using "Google Forms" and secondary information was utilized to support the data. Responses were analyzed with SPSS 20.0 using both Descriptive and Factor Analysis tools. The findings showed that consumers are having preferences for modern retailing over traditional retailing practices for multiple reasons. Researchers have witnessed certain limitations which are hindering such prospects and the 'cultural mindset and fixation' towards shopping is a significant factor. However, for more inclusive assessment, future research could extend to other spheres like the supply chain management strategies to minimize the time gap between the procurement to the sales level and hence ensure the expected value for the consumers.

Keywords: Agro-based Products, Cultural Mindset, Modern Retailing Platforms, Traditional Markets, Value-added Services

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I. Introduction

Bangladesh is endowed with a unique natural resource base. The Government of Bangladesh has identified agriculture as its thrust sector. In a national report entitled "Rio+20: Bangladesh Report on Sustainable Development (2012)" it was mentioned that the country has twenty-nine agro-ecological zones that have micro-climates of their own. Agriculture including crop cultivation, livestock and poultry rearing and fishery, remains the mainstay of the economy of Bangladesh. Production of vegetables, fruits and spices has also recorded prominent expansion. The horticulture and nutrition development initiative established horticulture nurseries around the country. The dairy sector is now growing at the initiative of the private sector. Processing fruits, vegetables and juices has potential. Another significant achievement in the agriculture sector is the improvement in research and development capabilities. Rising income, rapid urbanization and changing tastes are likely to continue to push up the demand for poultry, dairy and other livestock products. Bangladesh presents a profitable offering for setting up an agro-based business. [1]

Marketing is of interest to everyone, whether they are dealing with goods, services, properties, persons, places, events, information, ideas, or organizations. The demand for Bangladeshi agro-based product in both the local and international markets is growing quickly. Country's leading producers, exporters and manufacturers of agro-based products are witnessing prompt growth. In Bangladesh, agro-based products are one of the potential contributors to the economy. In recent years, Bangladesh has transformed from a country of food shortages to one of food self-sufficiency. Strong demand for imported processed foods suggests that food consumption patterns in Bangladesh will continue to shift from subsistence agriculture towards consumption of processed foods, leading to strong growth in domestic demand over the next decade. On the other hand, the country is noticing different avenues for agricultural commodity export. Fish and fish products, including shrimps, account for the major share in Bangladesh's agri-food products exports. Other export items include vegetables, fruits, spices etc. [2]

As per the GAIN report as of 2013, around 30 companies operate about 200 supermarket-format retail outlets in Bangladesh of which around 40 are in Dhaka. These organized chains are gradually gaining popularity over unorganized traditional retailing among the urban population. However, this expansion requires faster proceeding in Bangladesh to meet the requirements of agro-based products of customers. [3]

In one study (Baruah, 2008) stated that the business has become very competitive and complex. This is mainly due to changing taste and fashion of the consumers on the one hand, and introduction of substitute and cheaper and better competitive goods, on the other. [4] There were important changes occurring in Bangladesh during the 1990s that drove changes in food consumption patterns and the food system. Increasing urbanization and industrialization is leading to various socio-economic changes impacting on the system. The country has witnessed participation of more women in the total workforce. The growth of urban middle-income groups due to economic growth has created the demand for higher value products such as livestock products, fruits and vegetables. Combined with technological change this has altered nature of domestic food processing resulting in a shift to the purchase of more pre-processed produce. Urban consumers are becoming more concerned about tracing the origin of their food and hence trying to make a connection between safer food and better health. Available information suggests that both urbanization and changing consumption forms are having impacts on food systems and large-scale agro-industry especially modern retailing system (Super Shops, Chain Stores, Exclusive Brand Outlets, Online Stores, etc.) can keep food safe more efficiently than subsistence farmers or unorganized traditional retailing such as the Wet Markets (known as 'Kacha Bazars'), mobile van sellers, nearby grocery stores, etc. With the changes in food production and consumption, the total food value chain system in Bangladesh is also changing. This has also encouraged market expansion for food products and increased market dependence for certain households. [5]

Modern retailing concept has been launched few years back. It is natural that the introducers of a new type of service might face different hindrances. The customers might not be able to understand the service of modern retailing, the outlets of retail shops may not be available at the nearest places, and the service charge might be higher and so on. However, modern retailing concept, which is one of the buzz words in the value chain arena of Bangladesh, is highly appreciable owing to its outstanding performance to attract the educated busy customers to exult the services of the sector. Enormous numbers of customers are involved in the retail sector by value-added services in the context of Bangladesh. The modern retailing system, moreover, is also contributing to the national economy of Bangladesh.

According to the World Bank, the top 20 percent of the population of Bangladesh accounts for 41.4 percent of total consumption. Of the country's estimated total population of 150 million, Dhaka, the Capital City, is a rapidly growing megacity of well over 15 million (as said by the latest 2011 census), with 34 percent living below the poverty line. The size of Bangladesh's urban population is about 40 million, of which approximately 10 million people are potential customers of permanent retail shops, including Supermarkets. [3] So, considering this, the researchers hope that it will be very much beneficial to them to determine the performance and prospects of an emerging marketing concept in Bangladesh.

II. Objectives of the Study

Addressing the issue of emergence and prospects of modern retailing to facilitate the changing consumption behavior of urban consumers in Dhaka City especially for agro-based products is the significant broad objective of this study.

The specific objectives are as follows:

- To study the major variables involved in urban consumers' buying behavior.
- To compare the operations and market offerings by the modern retailers compared with the traditional market practices in Dhaka City.
- To analyze the value-added services provided by the modern retailing platforms.
- To evaluate the market prospects and limitations of the modern retailing practices in the Dhaka Metropolitan City Area.

III. Methodology of the Study

The study explored the consumers' buying behavior for different agro-based products from the super shops, online portals, retail outlets and the traditional marketplaces in the context of the urban areas (especially Dhaka City) in Bangladesh. It examined how the marketers manage their operations in specific areas, how they absorb the cultural variances, changing customers' buying patterns, measuring the satisfaction level through the value-added services; market offerings towards a brand/product of consumers. The sources of secondary data are very limited in this study. One of the significant reasons is that few types of research have been conducted based on the mentioned topic. However, secondary data were gathered mainly through review of related journal articles and books to develop the conceptual framework of this study regarding modern retailing and its contribution to change the consumption pattern for agro-based products.

A combination of quantitative and qualitative methods has been utilized for this study. The research work mainly employed the online survey methodology to gather primary data necessary to meet the research objectives. "Google Forms" - the online survey tool has been used, for developing the questionnaire and gathering the data, and was also selected for its user-friendliness, time efficiency, and cost-effectiveness. The

responses allowed respondents' sensitivities about the subject matter that eventually assisted in developing a qualitative analysis of the study. Non-probability sampling method especially convenience sampling technique was used for the online survey on a population of prospective respondents between the ages from 15 to 65+ years. With several modifications, questionnaires with 39 questions, among which 27 five-point Likert Scale statements were developed. These questions were prepared in accordance with the objectives of this research. More than 200 responses have been received and around 162 responses were collected and analyzed using SPSS 20.0 to gather more reliable and accurate data.

Moreover, the study is to measure not only the performance level of modern retailing platforms over traditional market practices but also to determine how this service is contributing to shaping consumption patterns of the urban customers especially in Dhaka City, as well as how much popular this service is to the busy generations of Bangladesh. They have opined whatever they had been thinking regarding the modern retailing services for agro-based products. The multi-disciplinary analytical approach is adopted. Economic tools and relevant management techniques are extensively utilized for the analytical purpose. To determine the minimum number of factors that will account for maximum variance under Factor Analysis, methods like "Principal Component" is utilized. The number of factors was determined based on the "eigenvalue" (Only factors with a variance > 1 are included) using the table named "Total Variance" explained, and the graph named "Scree Plot". In this study method "Varimax Procedure" (orthogonal method of rotation) is used for rotation to represent the correlation between the factors and the variables.

IV. Literature Review

Catherine et al. (2015) have mentioned that huge changes are occurring in the retail environment in developing countries over the last couple of years and hence it is imperative to offer a more comprehensive perspective of the inevitability of these modern retailing for consumers of Bangladesh. [6] The modern retail industry in Bangladesh comprises of both organized and unorganized sectors. The unorganized traditional sector is dominated by conventional local markets, and small-scale single outlet businesses (e.g. local temporary sheds and street markets in various locations; area wise Big Kacha Bazar (Local Wet Markets) such as Dhaka Cantonment's KachukhetKacha Bazar, HatirpoolKacha Bazar, Mirpur 1 Kacha Bazar, DhanmondiKacha Bazar, MohammadpurKrishi Market Kacha Bazar, Rampura-BanasreeKacha Bazar, etc. and van selling in the local areas and neighborhoods. Traditional 'Open-Air Temporary Shed Shops' are the most traditional type of retail shops in Bangladesh, and such types of traditional markets are visible both in urban and rural areas of the country. Primary commodities like fresh vegetables, fruits, fish and semi-processed homemade foods are sold in such kind of shops. On the other hand, the organized sector has retail chains, supermarkets and privately-owned retail business centers (e.g. Shwapno, Agora, Meena Bazar, Unimart, Lavender Super Store Ltd., Prince Bazar, Kazi Farms Kitchen's Outlets, Bengal Meat Butcher Shops, etc. and some online shops like www.chaldal.com, www.daraz.com.bd, www.directfreshbd.com, etc. The USDA Foreign Agricultural Service GAIN Report (2013) revealed that roadside shops together with the open-air temporary shops constitute around 70 percent of the retail sector business whereas modern retailing represents the rest of the percentage. [3]

Under the traditional system, the nature of the food marketing system in Bangladesh is shaped by the numerous small farmers spread throughout the country and the small size of marketable surpluses of the crops they grow. Assembly of these widely dispersed and small marketed quantities is costly and inefficient. The supply chain of this unorganized sector is inefficient due to lack of some considerations as refrigeration, transportation and warehousing facilities. Most of these retailers in this sector buy their supplies from local distributors or wholesalers. From their perception, the marketing of agricultural commodities is difficult; complex; costly and inefficient because of some characteristics as perishability of the product, seasonality of production, the bulkiness of products, variation in quality of products, irregular supply of agricultural products, product pricing, processing, etc.

Considering these limitations faced by the unorganized sector, retailers from organized sector come up with required infrastructure by establishing a reliable supplier base for the sake of consumers especially in the urban areas. Processing functions (e.g. proper storage and warehouse; cold storage and cold chain; packing and packaging) under this structured system can reduce the extent of the perishability of farm products especially for horticultural crops (fruits, vegetables, flowers) and livestock products (milk, meats, eggs, and fisheries). By this function, perishable products do not deteriorate in quality; ensure regular supply of perishable commodities in the market and made it possible for the consumers to live in greater comfort. The storage function of this modern retailing system, therefore, adds the time utility to products. Islam (2014) opined that customers are now tending to buy a well-packed product with proper labeling and date of expiry. For agro-based products business, the packaging is reflecting a role of brand, hygiene, protection, and quality. To win the heart of customers, attractive packaging of all products especially agro products is a must. [7] The bulkiness of most agricultural products makes their transportation and storage difficult and expensive (because of higher costs of transportation, handling, and storage). Hence, this transportation of organized retailing adds to the place utility

of the goods. Because of the large variation in the quality of agricultural products, their grading, and standardization is somewhat difficult. Products are graded according to the quality specifications. But if these quality specifications vary from seller to seller, there would be a lot of confusion about the grade standard. And the result is buyers will lose confidence in grading. To avoid this, the consistent supply base of this organized retail sector has fixed grade standards (Acharya and Agarwal, 2011). [8] Under modern retailing system technological advance was being made in food preservation method. Advance in food processing has made it possible to get those commodities all throughout the year. Razzaque (2014) suggests that these organized developments are likely to increase competition convincing the retailers to be market driven. They must provide high-class customer service, minimize the gap between the levels of service they offer and that their customers expect from them. [9]

Modern retailers have facilities regarding both cold storage and cold chain. In these storage structures, the temperature is controlled and maintained so that the stored perishable products may not deteriorate in quality and makes a possible regular supply of perishable commodities in the market and made it possible for the consumers to live in greater comfort. On the other hand, the cold chain system involves cooling of the (horticultural and livestock products) produce immediately after harvest to the lowest non-damaging temperature and then maintaining the temperature constant throughout all the post-harvest operations as handling, packaging, storage, transportation and marketing up to and including the retail sale. [8]

Shopping in traditional market is no longer a pleasant experience for the customers of Bangladesh. Moreover, customers prefer to go to a Chain Superstore as it offers them a unique shopping experience. [10] [11] Based on the findings of Dholakia and Syeda (2004) new supermarket would have to offer more quality products at competitive prices to induce consumers to switch from their existing shopping patterns (for the daily necessities routinely purchased from the “Kacha Bazars”). [12]

The researchers may thus summarize that, the initiation of the transformation process from unorganized traditional retailing practices to modern retailing system will be very much beneficial for agro-based producers and marketers to redesign their marketing tools having in detailed information about changing consumption pattern of urban consumers and hence, the contribution of modern retailing system in this regard.

V. Analysis and Findings of the Study

The analysis based on the information gathered is presented in the respective tables, which are subsequently analyzed below:

5.1 Target Market for Agro-based Products:

Table 1: Demographic Profile of Respondents (in Percentage)

Variables	Category	Percentage
Gender	Male	59.9
	Female	40.1
Age	20 – 34	71.0
	35 – 49	14.8
	50 – 64	6.8
	65+	7.40
Profession	Student	17.8
	Business/Self Employed	7.4
	Govt. Service Holder	6.2
	Private Service Holder	58
	Housewife	3.1
	Retired	5.6
Monthly Income	Others	1.9
	Below Tk. 20,000/-	9.3
	Tk. 20,001/- Tk. 35,000/-	13
	Tk. 35,001/- Tk. 50,000/-	14.8
	Tk. 50,001 – Tk. 65,000/-	13.6
	Tk. 65,001/- Tk. 80,000/-	19.1
	Tk. 80,001/- +	30.2

Source: Primary Survey, January 2018

Table 1 exhibits the detailed sample profile of the respondents. The demographic table shows about 86 percent fall into the Age range between 20-49 years and are contributing more in the modern retail services compare to other age groups. These groups are usually the target market segment for the modern retailers observed in Dhaka, Bangladesh. Majority of the respondents are the private service holders, and on an average, they have a monthly family income above BDT 80,000/-. The level of interest of this respective aware group with disposable income is a lucrative market to venture into the modern retailing concept in Bangladesh.

5.2 Consumers' Awareness Level and the Promotion tools applied by the Modern Retailers:

Table 2: Knowledge about Modern Retailing (in Percentage)

Variables	Category	Percentage
Awareness about "Modern Retailing Practices" (Super Shops, Online Portals, Retail Outlets, etc.)	Poor	5.6
	Moderate	17.3
	Aware	48.1
	Highly Aware	29
Sources of Information for Modern Retailing	Advertisements in Broadcast Media (TV, Radio, etc.)	23.5
	Advertisements in Print and Outdoor Media (Newspaper/ Magazines/ Billboards, Banners, Company Vehicles, etc.)	28
	Reference Groups (Friends, Family, Peer Groups, etc.)	27
	Point of Sales Promotions (Seller's Advice)	5.50
	Company's Website and Social Media	16.00

Source: Encoded in Table 1

The knowledge of the modern retailing concept among the respondents is 'High' and they are 'Highly Aware' regarding the operational practices. The investigation suggests that around 77 percent are 'Aware' of the services offered by the modern retailing platforms. On the other hand, based on multiple responses given by the respondents, the researchers witnessed that "Point-of-Sales Promotions" and "Company's Websites and Social Media" awareness tools which have been taken by the retailers to aware the mass people regarding the modern retailing service is not that much noteworthy in comparison to the advertising campaigns conducted through the Print and Broadcast Media. Overall, the Print media plays the vital role (around 28 percent) (Table 2) in creating the required awareness among the target groups. Along with these, the respondents are also influenced by their Reference Group members (more than 25 percent). So, both the Campaigns and WOM (Word of Mouth) references impact on the modern retailing practices which are ahead of any other endeavors to spread out regarding this service.

Table 3: Behavioral and Psychographic Statistics of Respondents (in Percentage)

Variables	Category	Percentage			
Buying Frequency of different Agro-based products	Daily	16.0			
	Once in 3 Days	40.1			
	Weekly	30.9			
	Fortnightly (Once in 15 days)	8.10			
	Monthly	4.90			
Monthly Expenses for buying Agro-based Products	Below Tk. 5,000/-	6.80			
	Tk. 5,000/- Tk. 10,000/-	17.9			
	Tk. 10,000/- Tk. 15,000/-	39.5			
	Tk. 15,000 – Tk. 20,000/-	19.8			
	Tk. 20,000/- Tk. 25,000/-	5.50			
Preference about Modern Retailing for buying Agro-based products	Tk. 25,000/- +	10.5			
	Least Interested	0.00			
	Less Interested	3.70			
	Moderate	28.4			
	Interested	48.1			
	Highly Interested	19.8			
Choice of Modern Retailing over Traditional Retailing					
Traditional Retailing			Modern Retailing		
Variables	Category	Percentage	Variables	Category	Percentage
Agro-based Products	Daily Foods and Cooking Items	59.3	Agro-based Products	Daily Foods and Cooking Items	40.7
	Fruits and Vegetables	73.5		Fruits and Vegetables	26.5
	Fishes, Meat, and Eggs	77.8		Fishes, Meat, and Eggs	22.2
	Frozen and Ready-to-cook Foods	11.7		Frozen and Ready-to-cook Foods	88.3
	Milk and Dairy Products	35.2		Milk and Dairy Products	64.8
Bakery and Snacks	19.1	Bakery and Snacks	80.9		

Source: Encoded in Table 1

5.3 Preferences for Modern Retailing to Purchase Agro-based Products:

A significant percentage of the respondents have the habit of visiting the modern retail platforms such as retail chain outlets, brand stores; online shops, etc. either "Once in 3 days" or on "Weekly" basis. Modern Retailing is playing an important role regarding respondents' choice for 'Frozen and Ready-to cook Foods'; 'Milk and Dairy Products' and 'Bakery and Snacks'. The possible reasons could be for the failure of maintaining proper standardization and grading from the traditional markets. However, regarding 'Fruits and Vegetables'; 'Fish, Meat and Eggs' and 'Daily Foods and Cooking Items' the performance of the traditional market practices is Satisfactory. The possible reasons could be lack of consumer's trust about freshness and quality of these products (Table 3).

5.4 Factor Analysis:

Factor Analysis is a data reduction method. From many methods of this analysis principal component analysis has been used for analysis in this paper. To check whether Factor Analysis is applicable, "Bartlett's Test" has been done. To explain the factors and correlated variables within them, rotating the component matrix by "Varimax" has been used after initial extraction of factors. The sample size of 162 is considered to be fair for the Factor Analysis.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.862
Bartlett's Test of Sphericity	Approx. Chi-Square	1944.411
	Df	351
	Sig.	.000

The Bartlett's Test of Sphericity tests the adequacy of the correlation matrix and yielded a value of 1944.41. The Bartlett's Test of Sphericity is significant at 0.000 (P<0.01). It proves that the dataset is suitable for conducting the Factor Analysis (Table 4).

Table 5: Communalities

	Initial	Extraction
Preferences towards "Modern Retailing" over "Traditional Markets" for Product Varieties and Level of Quality	1.000	.659
Preferences towards "Modern Retailing" for the [Convenience and ease of shopping [One Stop Solution or Shopping under One Roof]	1.000	.794
Preference towards "Modern Retailing" for the Price Differences	1.000	.703
Preference towards "Modern Retailing" for the [Environmental Benefits [Crowd, Cleanliness, Product Display]]	1.000	.727
Preference towards "Modern Retailing" for [Online Transactions and Home Delivery Services]	1.000	.630
Facilities in purchasing Agro-based Products from "Modern Retailing" over "Traditional Markets" [Assurance of Product Quality [Source, Size, Weight, Appearance, Taste etc.]]	1.000	.667
Facilities regarding [Grading, Re-packing and Retailers' own Brand]	1.000	.440
Facilities regarding [Availability of Organic and Rare Products [Imported / Exclusive items]]	1.000	.605
Facilities regarding [Smart Shopping Options [Technological Support: Location Setting, Customized Search options, product comparison etc.]]	1.000	.729
Facilities regarding [Mode of Payments [Cash on Delivery, Mobile Banking, Acceptance of Cards, Shopping Vouchers, etc.]]	1.000	.621
Facilities regarding [Discounts and Promotional Offers]	1.000	.626
Facilities regarding [Customer Relationship Management [Membership, SMS Notification, Help Line, Sales Supports, etc.]]	1.000	.524
Facilities regarding [In-store Comfort, Safety and Security]	1.000	.663
Additional facilities respondents expect from modern retailing in future [24/7 hours Shopping Facilities]	1.000	.638
Additional facilities regarding [Parking Facilities]	1.000	.724

Additional facilities regarding [Cash Withdrawing facilities [ATM booth inside the retail premises]]	1.000	.655
Additional facilities regarding [Food and Dine Facilities/ Mini Café]	1.000	.700
Additional facilities regarding [Kids Playing Zone]	1.000	.673
Additional facilities regarding [Store's Shopping Card [e.g. The Tesco club card frequent shopper program]]	1.000	.637
Additional facilities regarding [Store's Own Mobile Apps.]	1.000	.648
Additional facilities regarding [Product Return Facilities]	1.000	.621
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Existing Shopping Culture [Fixation of customers' mindset towards traditional shopping, bargaining, doubt about freshness, etc.]]	1.000	.558
Limitations of modern retailing regarding [Insufficient Number Modern Retail Outlets]	1.000	.635
Limitations of modern retailing regarding [Lack of Marketing Communications]	1.000	.653
Limitations of modern retailing regarding [Later Payment Options]	1.000	.631
Limitations of modern retailing regarding [Unavailability of Smaller Pack Sizes [Sachet Products and Coinage Products]]	1.000	.699
Limitations of modern retailing regarding [Technological Shortfalls [Software and Server Problems]]	1.000	.626

Extraction Method: Principal Component Analysis.

From the above table, researchers witnessed all calculated values are above 0.50 (except one) which is the standard cut point. The values in the extraction column of commonalities indicate the proportion of each variable's that can be explained by the retained seven factors. Variables with high values in the extraction column are well represented in the common factor space. For example, 79.4 percent (or 0.794 out of 1) variance of the variable "Preferences towards "Modern Retailing for the "Convenience and Ease of Shopping (One Stop Solution or Shopping under One Roof)" and 72.4 percent variance of the variable "Parking Facilities" can be explained by the 7 factors that have been retained here. Variables with low values are not well represented by the factors. It can be noted that in this data no variables have any particularly low values (**Table 5**).

Table 6: Total Variance Explained

Components	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	8.538	31.622	31.622	8.538	31.622	31.622	3.186	11.799	11.799
2	2.087	7.728	39.350	2.087	7.728	39.350	2.965	10.983	22.782
3	2.027	7.507	46.857	2.027	7.507	46.857	2.534	9.385	32.167
4	1.366	5.058	51.915	1.366	5.058	51.915	2.501	9.261	41.428
5	1.260	4.667	56.582	1.260	4.667	56.582	2.430	9.002	50.429
6	1.131	4.190	60.772	1.131	4.190	60.772	2.296	8.504	58.934
7	1.077	3.990	64.761	1.077	3.990	64.761	1.573	5.828	64.761
8	.967	3.583	68.344						
9	.820	3.038	71.383						
10	.778	2.881	74.264						
11	.744	2.756	77.020						
12	.703	2.602	79.623						
13	.642	2.379	82.001						
14	.611	2.263	84.265						
15	.518	1.919	86.184						
16	.467	1.730	87.914						
17	.448	1.659	89.573						
18	.407	1.507	91.080						
19	.343	1.271	92.350						
20	.332	1.228	93.579						
21	.291	1.078	94.657						
22	.277	1.025	95.681						
23	.264	.979	96.661						
24	.251	.931	97.591						
25	.243	.901	98.492						
26	.211	.780	99.273						
27	.196	.727	100.000						

Extraction Method: Principal Component Analysis

The 'Total Variance Explained' table presents the number of common factors extracted, the eigenvalues associated with these factors, the percentage of total variance accounted for by each factor, and the cumulative percentage of total variance accounted for by the factors. Using the criterion of retaining only factors with eigenvalues of 1 or greater, seven factors were retained for rotation. These seven factors accounted for 31.62 percent; 7.73 percent; 7.51 percent; 5.06 percent; 4.67 percent; 4.19 percent and 3.99 percent of the total variance, respectively for a total of 64.76 percent.

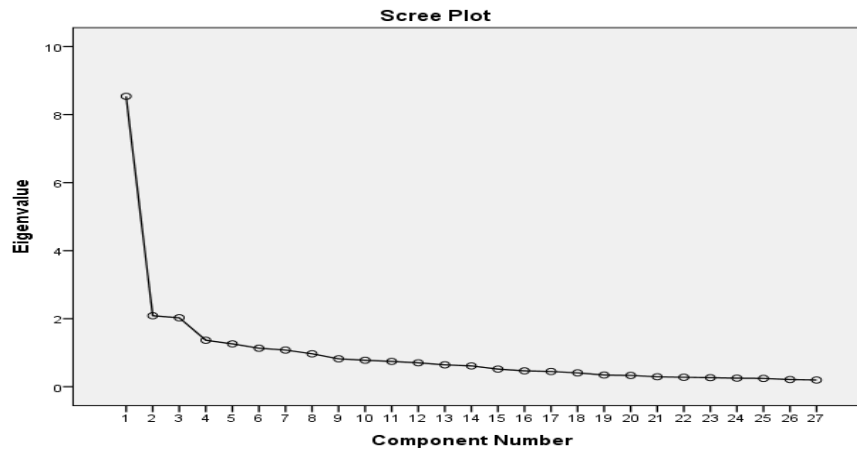


Figure 1: Scree Plot

The above figure (Figure 1) shows a graphical representation of all calculated eigenvalue against the factors. The researchers have observed after the seventh factor the eigenvalues of the factors are less than 1. It is also clear that the scree plot has a downward trend meaning each successive factor is accounting for smaller and smaller amounts of the total variance. Values in the first two columns of the table immediately above also represent the same picture.

Table 7: Rotated Component Matrix^a

	Component						
	1	2	3	4	5	6	7
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Smart Shopping Options [Technological Support: Location Setting, Customized Search options, product comparison etc.]]	.826						
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Mode of Payments [Cash on Delivery, Mobile Banking, Acceptance of Cards, Shopping Vouchers, etc.]]	.719						
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Market" [In-store Comfort, Safety and Security]	.569						
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Availability of Organic and Rare Products [Imported / Exclusive items]]	.538						
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Mark" [Customer Relationship Management [Membership, SMS Notification, Help Line, Sales Supports, etc.]]							
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Unavailability of Smaller Pack Sizes [Sachet Products and Coinage Products]]		.801					
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Later Payment Options]		.707					
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Technological Shortfalls [Software and Server Problems]]		.642					
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Lack of Marketing Communications]		.639					
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Cash Withdrawing facilities [ATM booth inside the retail premises]]		.538					
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Existing Shopping Culture [Fixation of customers' mindset towards traditional shopping, bargaining, doubt about freshness, etc.]]			.696				
Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Insufficient Number Modern Retail Outlets]			.675				

Limitations in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Assurance of Product Quality [Freshness, Appearance, Taste etc.]]			.668			
Additional facilities respondents expect from modern retailing in future [Parking Facilities]			.713			
Additional facilities respondents expect from modern retailing in future [Food and Dine Facilities/ Mini Café]			.647			
Additional facilities respondents expect from modern retailing in future [Kids Playing Zone]			.601		.529	
Additional facilities respondents expect from modern retailing in future [24/7 hours Shopping Facilities]			.593			
Respondents preferences towards "Modern Retailing" over "Traditional Markets" for the [Convenience and ease of shopping [One Stop Solution or Shopping under One Roof]				.828		
Respondents preferences towards "Modern Retailing" over "Traditional Markets" for [Online Transactions and Home Delivery Services]				.670		
Respondents preferences towards "Modern Retailing" over "Traditional Markets" for the [Environmental Benefits [Crowd, Cleanliness, Product Display]]				.604		
Additional facilities respondents expect from modern retailing in future [Store's Own Mobile Apps.]					.730	
Additional facilities respondents expect from modern retailing in future [Store's Shopping Card [e.g. The Tesco club card frequent shopper program]]					.691	
Additional facilities respondents expect from modern retailing in future [Product Return Facilities]					.529	
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Grading, Re-packing and Retailers' own Brand]						
Respondents preference towards modern retailing over traditional retailing for the Price Differences						.758
Respondents preferences towards "Modern Retailing" over "Traditional Markets" for Product Varieties and Level of Quality						.591
Facilities in purchasing agro-based products from "Modern Retailing" over "Traditional Markets" [Discounts and Promotional Offers]						

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

^aRotation converged in 15 iterations.

The Rotated Component Matrix Table characterizes the seven factors after rotation. To identify what these factors represent, it would be necessary to consider what variables loaded on each of the seven factors indicated. Four variables are loaded on Factor 1. A review of these shows that most of these items reflect the preference level of respondents regarding 'Value-added Services' offered by the modern retailing over the traditional retailing for purchasing agro-based products (e.g. purchasing from modern retailing will give them Smart Shopping Options and Ease Mode of Payments; ensure In-store Comfort, Safety and Security and sufficient available stocks for Organic and Rare Imported and/or Exclusive Items,etc.). Factors 2 and 3 incorporate those observed variables (eight) that appear to reproduce – 'Perception' of respondents regarding 'Limitations' of Modern Retailing. Factor 2 represents limitations related to the 'In-store Arrangement' whereas Factor 3 reflects 'Limitation from Psychological Perception' of consumers. Factor 4 encompasses four variables that reproduce 'Key Expectations' of the respondents regarding 'Future Facilities and Market Prospects' they expect from Modern Retailing platforms. Factor 6 incorporates three variables that reproduce 'Expectation about Future Facilities and Market Prospects' that seems to be insignificant in comparison to Factor 4. Finally, Factors 5 reflects 'Prevailing Market Operations' of Modern retailing platforms, whereas Factor 7 contains two variables that appear to reflect – 'Existing Market Offerings' by modern retailers. (Table 7 and 8 respectively).

Table 8: Overview of the Factor Labeling

Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Value-added services offered by Modern retailing	Limitations of Modern Retailing related to in-store arrangement	Limitations of Modern Retailing related with psychological perception of consumers	Key expectation regarding future facilities and market prospects of Modern retailing	Prevailing Market Operations of Modern Retailing	Minor Expectation regarding future facilities and market prospects of Modern retailing	Existing Market Offerings by Modern Retailing

Smart Shopping Options - such as technological Support: location Setting, customized search options, product comparison etc.	Unavailability of Smaller Pack Sizes - such as Sachet Products and Coinage Products	Existing Shopping Culture [Fixation of customers' mindset towards traditional shopping, bargaining, doubt about freshness, etc.]	Parking Facilities	Convenience and ease of shopping [One Stop Solution or Shopping under One Roof]	Store's Own Mobile Apps.	Price Differences
Ease Mode of Payments – as Cash on Delivery, Mobile Banking, Acceptance of Cards, Shopping Vouchers, etc.	Later Payment Options	Insufficient Number Modern Retail Outlets	Food and Dine Facilities/Mini Café	Online Transactions and Home Delivery Services	Store's Shopping Card [e.g. The Tesco club card frequent shopper program]	Product Varieties
In-store Comfort, Safety, and Security	Technological Shortfalls - Software and Server Problems	Assurance of Product Quality – lack of consumer's trust regarding freshness and quality	Kids Playing Zone	Environmental Benefits - Crowd, Cleanliness, Product Display etc.	Product Return Facilities	
Availability of Organic and Rare Imported / Exclusive items Products	Lack of Marketing Communications		24/7 hours Shopping Facilities			
	Unavailability of Cash Withdrawing facilities – e.g. ATM booth inside the retail premises					

Literally, it is evident from the analysis that the significance of Modern Retailing to accommodate the diversified consumption pattern of urban consumers in Dhaka City is 'Satisfactory'. Respondents provided the highest priority to the "Value-added services" offered by the modern retailers. However, as this is an emerging concept in Bangladesh, there are some drawbacks (mentioned above) which are hindering the prospects of the sector to develop. If proper steps have been taken, then not only the obstacles will be eradicated but also many attracting facilities will be able to grab the vast number of customers. Hopefully, by the following years, under the modern retailing practices, existing and new retailers will initiate more facilities and better serve the customers.

VI. Suggestions

Based on the mentioned analysis and findings, the researchers have identified some possible suggestions which are discussed below:

- The most significant factor, that is hindering the growth and sustainability of the modern retailing concept among the consumers of Dhaka City, is the cultural mindset and fixation towards shopping the necessary products from the traditional markets. Although the young generation is very much familiar with the concept of modern retailing and its practices, the senior age segment is still having the attitude of buying the agro-based products from the nearby traditional markets. This is just because of their inclination towards having the touch-and-feel experiences, bargaining and negotiating with the sellers, as a part of their habitual brick-and-mortar shopping tendency. More awareness and engagement programs like sales assistance, real-time demonstration, evidence for supply chain partnerships, etc. targeting the mentioned group needs to be aimed by the modern retail marketers to change their consumption pattern towards the modern retailing platforms.
- Although the number of modern retail points both in physical and online categories are increasing rapidly for the last couple of years in the Dhaka Metropolitan City area, the existing count is still not adequate to serve the growing population of the potential market areas. The modern retail outlets and the delivery points are usually concentrated on the major localities where the affluent and higher middle-class consumers reside. This opportunity should not only be concentrated on the demographic and psychographic traits of the consumers but also concerning the geographic coverage and the behavioral pattern of the vast consumer segments. A comprehensive market development plan, along with sufficient amount of investments and logistic support is required to increase the availability and importance of modern retailing for buying the

agro-based products. Moreover, extended shelf space within the stores should be allocated for agro-based products to increase their product varieties and visibility for the customers coming to the stores.

- ☑ Another strong reason for consumers' less attraction towards modern retailing for agro-based products is the price variations. The prices charged for fishes, meat, poultry, eggs, vegetables, and fruits, etc. are marginally higher in the modern retail platforms compared to the traditional markets due to their product grading and incremental value addition. But they also charge a significant amount additional price in the name of Tax, VAT, and other service charges. Computerized billing system with no options for price bargaining and credit purchase facilities, unavailability of smaller pack sizes, are some of the highlighted issues which are generating some negative perceptions among the target customer groups. The modern retail marketers should maintain more inclusive relationships with the consumers and be transparent and accountable regarding such price issues.
- ☑ From the market observations, it has been identified that the stocks of major perishable products are usually procured and displayed in the early morning hours of the business day. Due to prolonged exposure on the shelves, different customers' approaches and physically touches the products, eventually, it loses its freshness by the first half of the day. And the customers those who come during the second half of the day find the products less attractive to buy. To mitigate this problem and serve fresh products to all the customers, modern retail marketers should change their procurement, inventory, and merchandising policies. They can replenish their shelf stocks shift-by-shift at least twice or thrice a day, to present a fresh look and good texture to all customers coming on the different shifts. Moreover, they can set some discounted prices for the unsold products from the previous shift.
- ☑ From the data analysis, it was found that the customer segments ranging from 20 to 49 years are highly aware, interested and positive to purchase their necessary agro-based products from the modern retail platforms. This potential customer segment encompasses educated and smart private service holders. They comparatively spent a significant amount of money for their regular consumption of agro-based products and would like to purchase these products on 'Weekly Basis' or 'Once in 3 Days' from the physical and/or online platforms respectively. Since these consumers are habitual using modern technology and smart gadgets in their daily life, it shows a positive indication for the marketers to connect them virtually and persuade them to use the store's own application (mobile apps) and online selling options. The modern retail marketers can introduce a new purchase and payment system under a tri-party agreement between the store, bank and the customer for issuing special shopping cards to ensure marginal credit purchase facilities. Moreover, to minimize the possible risks of misusing the cards, the store can provide SMS notification to the actual cardholder and ask for final confirmation before making any kind of transactions.
- ☑ Another important observation from the study was found that many health conscious urban consumers are now interested to consume organic agro-based products such as fishes, meats, eggs, fruits, vegetables and other food grains in their daily life. Some of them are strongly loyal to the prominent local and international brands. Most of the local organic food processing companies are marketing their products through the modern retail platforms, as their asking prices are comparatively higher and target customers are specific. In addition, the modern retail marketers are also importing some exclusive organic agro-based items directly from abroad and collecting some items from the other local importers. Thus, the modern retail platforms have become very convenient and trustworthy sources for the potential buyers of organic and exclusive imported items. Marketers of modern retail platforms should concentrate on that ground and increase the varieties of products at a fair price in their physical and online platforms to attract more buyers towards them.
- ☑ The need for secured 'Parking Areas' and 'Kids Playing Zone' for the regular customers visiting modern retail shops were the highlighting issues to be considered. Most of the modern retail shops are now in Dhaka City, situated on the busy roadside and there are no sufficient reserved parking spaces for the buyers. For such reasons, the regular customers especially the self-driven car users are having utmost difficulties for parking their cars in a secured place. And most the female customers are accompanied by their young children during the shopping time and sometimes having some problems to find their expected products from the shelves. So along with the car parking areas, modern retail shop management should consider having some reserved spaces as the 'Kids Playing Zone' so that the family members can enjoy a safe and comfortable shopping environment inside the store.
- ☑ Since most of the consumers in Dhaka city are aware but not properly persuaded to buy products from the modern retail platforms, marketers should use a wide range of communication tools containing both Above-the-Line (ATL) and Below-the-Line (BTL) practices. Mass Communication tools such as Television, Radio, Banners, Billboards, Internet, Social Media and Digital Marketing, etc. which are the components of ATL medium, can aware more consumers and change their basic awareness into interest towards the modern retail platforms. On the other hand, positive references to existing buyers, store promotions, shop hoardings, transit vehicle advertisements from BTL can turn the consumers' interest into conviction and

eventually lead them towards actual purchase. These 'Integrated Marketing Communication' programs will increase the purchase and consumption of agro-based products from the modern retail platforms among the consumers living in the urban areas of Dhaka City.

VII. Conclusion

The market dynamism of purchasing agro-based products is rapidly changing from the traditional market systems towards the modern retailing platforms. Therefore, it is a significant task for the modern retail marketers to persistently aware and build-up the confidence level among the customers to continue purchase the necessary agro-based products. Moreover, the supply chain management can be enhanced and assured that the products sold through the modern retailers are fresh, hygienic, and encourage the prospective customers to purchase the agro-based products in large quantities from such retail platforms. On further research, the researchers have the initiative to analyze the supply chain management strategies of the frequently purchased agro-based products and incorporate the findings in the modern retailing practices. The researchers would like to identify new dimensions on how to minimize the time gap so that the agro-based products can reach the distribution centers and the retail points within the shortest possible timeframe and value-add on the freshness and quality issues of such frequently purchased agro-based products.

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