Maximizing the Products Display for Purchaser Lucidity and Alleviation in Circulation to Augment the Sale of Supermarket: Milieu of Bangladesh

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Abstract
The purpose of this study is to appraise the accessible products display for the purchaser lucidity which may maximizes offers and actions of business with the alleviation in circulation to augment the random sale in the arena of supermarket. The study scrutinizes a fundamental research on the context of Bangladesh and especially for the Dhaka zone. A supermarket, a large form of the traditional grocery store, is a self-service shop offering a wide variety of food and household products, organized into aisles. It is larger in size and has a wider selection than a traditional grocery store, but is smaller and more limited in the range of merchandise than a hypermarket or big-box market. The traditional supermarket occupies a large amount of floor space, usually on a single level. It is usually situated near a residential area in order to be convenient to consumers. The basic appeal is the availability of a broad selection of goods under a single roof, at relatively low prices. Other advantages include ease of parking and frequently the convenience of shopping hours that extend far into the evening or even 24 hours a day.

Key words: Circulation, Supermarket, Alleviation, Sale, Products, Variation, Lucidity

1. Prologue
Supermarkets usually allocate large budgets to advertising, typically through newspapers. They also present elaborate in-shop displays of products. The shops are usually part of corporate chains that own or control other supermarkets located nearby-even transnational-thus increasing opportunities for economies of scale. All the products displayed in the Shopping Space are consumer products and will be sold to the customers & used by them. So it’s a requirement to include the flexibility of assemblage, along with maximum exposure for customer clarity and ease in circulation while designing the Display Units. Durability, cost, maintenance and ergonomics considerations and effective and efficient circulation for consumers, sales and maintenance personnel are also should be considered while designing. Many of our Dhaka city customers are now seek for an easy-care lifestyle based on simple, functional and aesthetics and quality design products. The idea of supermarkets flourished in the country last decade, fueled by growing urbanization, increasing number of women working outside their home, and rising per capita income. Under the above circumstance following propositions can be taken care of Supermarket design is an emerging discipline in Dhaka city.

2. Surroundings on the Cram
Supermarket is a new concept in Dhaka city. The Chain Supermarkets are now a growing phenomenon in city area. As the customers are increasingly becoming more aware of the conveniences and their own lifestyles, they are in many cases preferring to go to a Supermarket for their everyday shopping rather than to small departmental stores around. So, the customer satisfaction is important for growth of this sector. Supermarkets are set to boom in Dhaka city as the current market players are planning to open several hundred more outlets in the next few years to cope with the rising demand from the consumers. With a strong 15-20 per cent annual sales growth, about 30 companies with more than 200 outlets have already made foray into the industry. The annual turnover of the supermarkets now stands at around Tk 15.0 billion (1500 core). [1]

2.1. Reasons for developing the need of Supermarkets in Bangladesh
The idea of supermarkets flourished in the country last decade, fueled by growing urbanization, increasing number of women working outside their home, and rising per capita income etc. [2] Many of our Bangladeshi customers are now seek for an easy-care lifestyle based on simple, functional and aesthetics and quality design products. Some of the major reasons are described bellow;

2.2. Rapid Urbanization
Population growth rates in Bangladesh are the highest among the South- and South-East Asian countries. Migration figures give a picture on the affinity of the migrants towards the bigger cities. [3]
2.2.1. Reasons
Change in the status of towns in different levels accompanied with offices, industries, and academic institutions attracting people of various professions and the attraction of socio-cultural, educational and health and others facilities in the city. The concentration of different institution also led to high growth of the educated middle class.

2.3. Introduction of Nuclear Family Concept
Urbanization introduced major changes in the system of education and occupation. Western ideas increasingly infiltrated into the middle-class thinking through their education, in service training and the media- books, journals and press. This influenced gradual change in the concept of family, life-style and living. Metropolitan society and the job structure together created preference for nuclear family to replace the traditional joint family. [4]

2.4. Economic Solvency among the Middle Class
In the middle class sector there has been a definite shift in the financial capacity as well as attitude towards life in the people of the capital and maybe a couple of other major cities during the last couple of years. Bangladesh's PPP (purchasing power parity) GNI per capita has steadily increased. People are increasingly spending more for food, clothes and life style management. This time, the spending spree was observed even in remote northern or southern districts. Multi-storied shopping malls are coming up at upazila (sub district) level. [5]
2.5. Increasing Woman Employment and Busy life style of Mothers

Now a day’s our life is getting more and more busy so managing a busy lifestyle specially for a working mother doing all the household things can be merely challenging sometimes. [6] Ten years ago, a majority of the women workers in Bangladesh worked in the informal sector. However, the demographic structure of the employment participation in Bangladesh is witnessing a remarkable change. An increasing number of women are working in the formal sector as entrepreneurs and paid workers, a situation that was not seen in the past.

2.6. Inconvenience in the Conventional Shopping Practice

Shopping in untidy ambiance such as muddy floor, insufficient space to move, unhygienic arrangement of product, bargaining process, inconsistence price, a shopper in urban area lose his or her interest to shop in market and get panicked subsequently. Shopping in the traditional way is no longer a pleasant experience rather nightmare for shopper. As a result, Shopping mall is getting popularity among urban people. [7]

2.6.1. Unprofessional Attitudes of the Conventional Sellers

Customers in urban area are being deceived everyday by shopkeepers with selling inferior goods, charging

Figure 3: $ 6.0 Billion reportedly alter during the month of Ramadan

Figure 4: Labor force status, Bangladesh 1983-2000
excessive price and incorrect measurement. In other words, consumers are one sort of hostage to these shoppers, who form one kind of syndicate and dictate the market. [8]

2.6.2. Unjustified Pricing
The agony of the consumer compound with exorbitant price, inferior quality of the products, and long bargaining custom in Bangladesh, inaccurate measurement, traffic jam, and so forth triggered by lose of interest for shopping. Notably, consumers of Bangladesh have always been the victim of deception by the shoppers, who invariably manipulate the price.

2.7. Time Consumption
Time consumption is another major concept that changes consumer behavior (e.g. People are going into shopping malls rather than local markets). To avoid unnecessary trips: stores, finding a single place to get all the needs to run a family and Shop for things in bulk. This in return saves both time and money. All these requirements for our busy life end up with a good solution that is a well organized modern shopping mall.

2.8. Store Loyalty and Customer Care
The Shopping malls, customers go to have a lot more to do with the customers’ experience than with the prices. Customers value more about being greeted by the workers then the price tag of groceries. Customer service plays a huge role for why people go back to the same store. Also, people like how convenience of finding all their grocery items in the same store. [9]

2.9. Accessibility of credit or debit card
People care about their safety and always try to avoid the hustle of carrying cash. That is why people changes the local shops and turns towards the shopping malls.

2.10. Parking Facility
Shopping malls are convenient places to shop. They provide shoppers with abundant and secure parking areas. Shoppers need not drive around for fifteen minutes looking for a parking place, nor need they be afraid to walk to their cars after they have completed their shopping. [10]

2.11. Over all Factors affecting Customers to shop at supermarket
The very first reason of sample customers to purchase from shopping mall is quality products, products variety and special products that are 66%, 54% and 52% respectively. The other reasons, by order based on percentages of the sample customers' preference, are location (48%), hygienic environment (46%), hassle free shopping and freshness (36%), competitive price (28%), service and layout of the store (24%). Some customers like to purchase baby food from the shopping malls as well. All the malls possess their specialty on gathering certain products by which some of the customer prefers purchasing from the particular store. [11]

Figure 5: Overall Factors affecting Customers to Shop at Supermarket

3. Intends of the Study
- To provide a contemporary, functionally and aesthetically solved interior of a supermarket
• Allocation of space to different functional areas and utilization of every inch of it

4. Purpose of the Study
• Space is one of the scarcest resources in Dhaka city. So allocation of space to different functional areas and utilization of every inch of it is most important factor.
• Giving a modern and modified look to the shopping space. Contemporary, functionally and aesthetically solved interior of a supermarket.
• Interior space distribution and utilization, circulation, display unit arrangement to highlight each product equally will be done by following the proper standard.
• A clear and free flowing circulation segmented zoning into fresh section, followed by the dry area which encompasses non-food, beauty and preserved items. For allowance for browsing and wandering freely to increased impulse purchases. To enhance visual appeal and flexibility.
• With a stand out storage system to fast replacement of the sold products.
• Some unique features to draw more customer attention will also be added while designing. By using echo friendly furniture material and blend of colors & shapes.
• Durability, cost, maintenance and ergonomics considerations for consumers, sales and maintenance personnel will also be considered.

5. Institution of the Study
The study deals with various perspectives to fulfill the designated objectives and to reach the final goal. Thus successful completion of the job is done by going through the following arrangement of the study report. Chapter one deals with the introduction of the research topic and some general in formations about Supermarket. It contains background of the study and a general reason behind selecting the task along with its justification. Chapter two deals the declaration of the aims and objectives, it also contains the scope of the study along with constrains and limitations prevailed in completion of the job. Chapter three presents a review of literature on General history of Supermarket, general Characteristics, Classifications, Supermarket Planning System, Ergonomics Study, international practice for standard supermarket design. Chapter four deals with the methodology and procedural approach followed to carry out this study and steps followed for successful completion of the job through attaining the objectives working behind the whole activity.

6. Supermarket Planning System
Every new development for a supermarket needs planning permission and the developer/supermarket must submit a planning application to the relevant local authority. This application must be made public by the local authority and will have the opportunity to make case against the development. It may seem complex and intimidating but getting to grips with the ins and outs of the planning process and challenging the supermarkets through this process may be chance to win campaign. Developer and supermarket will need to accept a greater variety of scale, design and car parking. With supermarket developments over 2500 Sq.ft gross floor area regards must be paid to:
• Whether the sequential approach has been adopted
• How local development plans will be affected
• The impact on existing town centers and rural
• Accessibility of both public and private transport
• Overall effect on traffic patterns
• Any significant environmental impact
6.1. Space analysis
Psychology plays a role behind a Supermarket’s floor plan and how consumers shop. Focus groups, sales data and general psychology have helped to understand shopper habits, which have led to the formulation of effective floor plans and shelf layouts. Supermarkets use the same basic layout principles to create a general flow to their Supermarkets that keeps customers efficiently moving through the aisles and purchasing products.

**Store Layout Considerations**

- a. High margin items should be placed in high traffic areas
- b. High demand items should be placed in low traffic areas
- c. Complementary items should be placed near each other
- d. Seasonal needs should be considered
- e. Items need frequent restocking should be placed near storeroom or cash registers
- f. Complementary items should be placed near each other.
- g. Seasonal needs should be considered

6.2. Supermarket Layout and Design Basics
Supermarket Image is the overall perception the consumer has of the supermarket’s environment.

Supermarket Design
1. Storefront Design
2. Interior Design
3. Lighting Design
4. Sounds and Smells: Total Sensory Marketing

6.3. Supermarket Interior Design (Floor plan)
Floor plan is a schematic that shows where merchandise and customer service departments are located, how customers circulate through the store, and how much space is dedicated to each department.
6.4. Objectives of the Supermarket Environment
Tasks to create desired Supermarket image and increase productivity:
1. Get customers into the Supermarket (market image).
2. Convert them into customers buying merchandise once inside the Supermarket (space productivity).
3. Do this in the most efficient manner possible.

7. Elements That Compose the Supermarket Environment

Store Planning
a. Allocating Space
   Types of space needed:
   i. Back room
   ii. Office and other functional spaces
   iii. Aisles, services areas, and other non-selling
   iv. Areas of the main sales floor
   v. Wall merchandise space
   vi. Floor merchandise space

b. Circulation

7.1. Planning Fixtures, Display Units and Merchandise Presentation
1. Fixture Types
2. Merchandise Presentation Planning
3. Selecting Fixtures and Merchandise Presentation Methods
4. Visual Merchandising

Advantages
1. Low cost
2. Customer familiarity
3. Merchandise exposure
4. Ease of cleaning
5. Simplified security
6. Possibility of self-service

Disadvantages
1. Plain and uninteresting
2. Limited browsing
3. Stimulation of rushed shopping behavior
4. Limited creativity in decor

7.2. Visual Merchandising
"Visual merchandising", the art of attracting patrons with visual cues, is central to a super marketer’s ability to generate sales. Visual Merchandising got its start at the turn of the century, when department stores began using theatrical set design and lighting to create exotic displays. Today, the way the departments are arranged, the location of the escalators, the lighting—all are carefully planned to earn the store more sales per square foot.

7.3. Lighting Design
Contemporary lighting design requires an in depth knowledge of electrical engineering and the effect of light on color and texture. The Limited, as many specialty apparel super marketers, has found that lower light levels help
convey a more fashion oriented image. Good lighting should do more than illuminate space. It can highlight merchandise, space, display units, and capture a mood that enhance the image of supermarket. A typical 100,000 Sq. Ft. Supermarket has over 1000 light fixtures.

7.4. Visual Communications
1. Name, Logo, and Supermarket Identity
2. Institutional Signage
3. Directional, Departmental, and Category Signage
4. Point-of-Sale (POS) Signage
5. Lifestyle Graphics

7.5. Departmental Signage
Departmental signage serves as the highest level of organization in an overall signage program. These signs are usually large and placed fairly high to they can be seen throughout the store. Category Signage are smaller than directional and departmental signage and are intended to be seen from a shorter distance; they are located on or close to the fixture itself where the merchandise is displayed. It helps consumers negotiate throughout the store to find the product categories they are looking for. The size of category signage varies widely from a lettering that is a few feet in height to merely inches.

7.6. Point-of-Sale (POS) Signage
Point-of-Sale Signage is relatively small signage that is placed very close to the merchandise and is intended to give details about specific items. POS signage for clearance and sale items tends to be in red to draw a consumer’s attention.

7.7. Ergonomics Study
Ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance. Since the evolution of supermarket design and its impact on productivity have perspective of the structure of the space, entrances, circulation systems, atmospheric qualities (light and sound) and materiality. The basic idea of ergonomics is to design the workplace to fit the worker and not change the worker to fit into a poorly designed workplace. So the design of a supermarket involves to coordinate those standards of supermarket with proper ergonomics.

7.8. Lighting
Lighting can have a dramatic impact on the space. It needs to be functional but also complement the merchandise as well as emphasize key points throughout the store. The lighting should be layered and of a variety of intensities and fixtures. Firstly, examine the natural light and what impact it has in the space. Natural light adds interest and clarity to the space; also consumers also prefer to examine the quality of merchandise in natural light. If no natural light exists, a sky light can be used to introduce it to the retail space. The lighting of the ceiling and roof is the next thing to consider. This lighting should wash the structural features while creating vectors that direct the consumer to key merchandise selling areas. The next layer should emphasize the selling areas. These lights should be direct but not too bright and harsh. Poor lighting can cause eye strain and an uncomfortable experience for the consumer. To minimize the possibility of eye strain, the ratio of luminance should decrease between merchandise selling areas. The next layer will complement and bring focus onto the merchandise; this lighting should be flattering for the merchandise and consumer. The final layer is to install functional lighting such as clear exit signs.

7.9. Furniture
Ergonomics and Analysis of Retail Checkout Tasks Other important factors to consider in the design of a retail checkout workstation are checking stand layout and ergonomics and their physical impact on the cashier. The physical demands of a cashier’s job include force, repetition, awkward postures and static postures (FMI, 1995.) In a study of US Commissaries, researchers observed cashiers working, on average, a total of 7.5 hours during a shift at a check stand, where scanning and weighing items consisted of 5 hours, cleaning scanner window was done for 0.5 hours, and key pad entry comprised 2 hours of the shift. By law, cashiers must be relieved for a 15 minute break after 1.5 to 2.5 hours of continuous work. While the implementation of bar-code scanners has improved productivity and efficiency, the physical demands of the scanning action have taken a toll on workers' health.
It is also important to acknowledge that a supermarket space must combine both permanent and non-permanent features that allow it to change as the needs of the consumer and merchandise change. By exploring these standardizations in supermarket design the consumer will be given a thematic experience that entices them to purchase the merchandise.

8. Methodological Approach
Supermarkets introduced a whole new experience in the shopping of daily needs. They offered quality products at a stable price in a safe and clean environment in order to survive and achieve profitability. Although there are many factors which relate to customer satisfaction, this study field tended to emphasize on layout of the supermarket. Interior space distribution and utilization, circulation, display unit arrangement to highlight each product equally by following the proper standard. The purpose of the study is to identify the role of each of the factors to respond to customer requirements to satisfy customers and what and how they behave in the market place toward these factors. The totality of their movement toward the factors and attitude, the researcher liked to demonstrate here. To fulfill the objectives of the research, the entire study has been carried out through an orderly step by step process. This chapter illustrates these sequential steps.

The Total Procedure of Methodology is represented by the following Flow Chart:

9. Case study
Sometimes questionnaire survey cannot explore some matters in details which can be more descriptive through case study. The selected sample supermarkets were six in numbers namely, Agora, Meena Bazar, Swapno, Big bazar, Gift village and Family needs. These activities required to gather information includes:
  i. Photography
  ii. Measuring dimension of the space, circulation, furniture etc
  iii. Interviewing the employee, owner for helpful information.
iv. Discussion with relevant experienced personnel about the topic.
In this way, the abstracting and indexing journals published or unpublished were selected as first place to go. Academic journals, annual report, BSOA (Bangladesh Supermarket Owners Association) reports, conference proceedings, government reports, books and finally the current and available information from the newspapers were tapped depending upon the nature of the problem.

End Notes

The traditional supermarket occupies a large amount of floor space, usually on a single level. It is usually situated near a residential area in order to be convenient to consumers. The basic appeal is the availability of a broad selection of goods under a single roof, at relatively low prices. According to Bangladesh Supermarket Owners Association (BSOA) the supermarkets of Dhaka City can be broadly divided into two groups; Retail chain Supermarket (With several branches in different areas of Dhaka city) and Neighborhood Supermarket (May be another one or two branches in the same locality). The idea of supermarkets flourished in the country last decade, fueled by growing urbanization, increasing number of women working outside their home, and rising per capita income. So, maximizing the products display for purchaser lucidity and alleviation in circulation to augment the sale of supermarket concerning the milieu of Bangladesh is destined.

References