

Unraveling Urban FMCG Supply Chain Efficacy: Addressing Disruptions in Residential Zones and Expanding Accessibility

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Abstract

The city of Dhaka would be the centerpiece of this study's analysis of the challenges and trends affecting the distribution system for fast-moving consumer goods (FMCG) in extremely densely inhabited metropolitan regions. The major goal is to determine the causes of FMCG supply interruptions in housing areas and to provide practical solutions to these problems.

Methodological Approach

The study incorporates a thorough approach that includes both internet-based and offline questionnaires and interviews to gather primary data. Customer preferences, retail amenities, and supply chain obstacles are all studied using analytical methods. Gaining a thorough knowledge of the complexity of the FMCG supply system requires a comprehensive approach.

Findings

Residents in urban residential areas suffer considerable obstacles to obtaining necessary FMCG items, according to the study. These difficulties include constrained retail location choices, a

smaller selection of products, and disturbed supply networks. The research also demonstrates how these problems affect customer behavior by annoying and dissatisfying locals.

Research Implications

The results have important applications for politicians, retail businesses, and FMCG industries. The study's findings may be utilized to create focused interventions that promote customer happiness in urban residential regions while increasing the efficacy of supply chains and retail architecture optimization. Entities in the FMCG sector may guarantee that citizens have continuous and easy access to basic goods by resolving these issues and putting the suggested measures into practice. As a result, the general standard lifestyles will be improved, and the link between enterprises and communities will flourish.

Originality

The study offers insightful information on the intricate FMCG supply networks in metropolitan residential areas. By concentrating explicitly on the distinct difficulties encountered by FMCG supply lines in urban housing contexts, this study advances the body of understanding. It distinguishes out for its in-depth examination of the causes of supply chain interruptions and its suggestions for tactical advancements that are advantageous to both companies and customers.

Keywords: *Urban residential areas, Unraveling supply chain efficacy, Supply chain disruptions in residential zones, FMCG accessibility.*

Introduction

1.1 Research Background

Fast-moving consumer goods (FMCG) form an essential part of daily life, catering to the immediate needs of consumers. In Dhaka city, with a population of approximately 23 million, FMCG companies face unique supply chain challenges while trying to meet the diverse demands of the urban residential areas. Local companies and MNCs are generally offering FMCG products in numerous ways by following a traditional way. They maintain their supply through urban neighborhood groceries (UNG), urban general stores (UNG), retail shops, urban and rural wet markets, and superstores (Iftekhar et al., 2020). The customers purchase a variety of FMCG SKUs from the neighborhood groceries to fulfill their immediate needs or go to superstores or wet markets to purchase in large quantities. But the residential area dwellers face issues while purchasing FMCG SKUs. In most areas, retail and grocery shops are generally installed outside the residential area. For tiny areas, that is not such a big problem. But it is a bigger problem when considering large-sized residential areas as the consumers have to cross a massive area to get a retail shop for purchasing their necessities. Another issue faced by the customers is that the outside retail shops have fewer varieties of SKUs compared to their demand. The customers also have less bargaining power due to fewer options for buying. As a result, FMCG supply is significantly less than consumer demand in residential areas which causes FMCG distribution defective.

1.2 Research Inquiry

Currently, the residents from the residential areas in Dhaka are having some trouble obtaining FMCG supplies in their living areas due to a dearth of retail establishments within their residing area. The inconvenience of deploying adequate retail selling platforms within residential areas is what causes the issue. On account of this, this article conducts research to identify the key causes of the FMCG supply discomfort in residential areas, as well as the elements influencing this newly emerging problem. Subsequently, exploring remedies to eliminate the causes of the disruptions in FMCG supply in Dhaka's residential areas. The following paper does an investigation using primary data collection from both online surveys and offline questioning, certain analytical techniques, and a recommendation from the authors or the corresponding authorities.

1.3 Research Objectives

The research's principal objectives include an assessment of consumer products and their marketplaces in urban regions as well as an analysis of the end-user product supply chain in domiciliary areas to identify the causes of discrepancies in the FMCG chain of supply. To be more precise

1. To research the oversight of fast-moving consumer products distribution chains.
2. To compile data on availability and demand in domiciliation societies from customers, retail sellers, and corporate executives.
3. To assess consumer attitude and demand.

4. To examine the arrangement of retail establishments
5. To examine the problems with interruptions in the home supply chain.
6. To identify the elements causing problems in the distribution chain for retail products.
7. To provide strategies for streamlining the supply chain network.

1.4 Research Overview

The fast-moving consumer goods (FMCG) distribution networks in metropolitan residential neighborhoods are examined in depth in this study, with an emphasis on Dhaka, the capital city of Bangladesh, and its astonishing population of practically counts in millions. To meet the varied needs of buyers, both local and global FMCG firms use a variety of conventional distribution routes, including neighborhood grocery, general stores, retail stores, wet markets, and superstores. However, because there are not many retail outlets in the housing neighborhoods, residents have trouble getting FMCG goods. Shoppers must drive great distances to get necessities due to the dearth of handy store choices (December & Noyon, 2019). Additionally, the absence of selection and negotiating power in outdoor retail stores exacerbates the current problem. As a consequence, there is a noticeable discrepancy between the requirement for quick-moving consumer goods (FMCG) from customers in these locations and the available stock of FMCG. The goal of this research effort is to identify the fundamental reasons for supply chain interruptions in the FMCG industry while analyzing physical retail store distribution trends. In addition, it aims to propose methods for improving operational effectiveness in supply chains that operate in urban residential communities.

Literature Review

2.1 Introduction

The fast-moving consumer goods (FMCG) supply chain within residential areas has gained considerable attention from scholars and industry professionals due to its influence on customer contentment and market performance. Researchers have delved into the diversified distribution strategies employed by FMCG companies to reach consumers residing in residential neighborhoods. The supervision of market demand and SKU availability forecasts must also take into account client preferences, including close vicinity to retail amenities, the assortment of a variety of goods, selling prices, and SKU quality. Common obstacles include the absence of retail outlets, a restricted range of items, too much or too few stocks, logistics restrictions, the prevalence of counterfeit products, price hike, and poor management of distribution techniques (Asha et al., 2022). These problems may lead to product inaccessibility, which creates discontented consumers, and inconsistent functioning throughout the FMCG supply chain. For example, inadequate product diversity and lack of inventory in residential regions have negative effects on poor supply chain oversight for FMCG businesses carrying out in major cities. The FMCG industry is experiencing a supply deficit as a result of these conditions.

2.2 Supply Chain Management

A supply chain is a complex network that encompasses various interconnected activities, organizations, resources, and technologies. Its primary purpose is to facilitate the production, distribution, and delivery of goods or services to end consumers. Effective supply chain oversight is essential for maintaining the smooth flow of supplies from producers to consumers in the rapidly growing FMCG sector.

The FMCG supply chain involves numerous processes such as procurement, manufacturing, inventory management, logistics, and retailing. Precise demand forecasting is crucial for accurate planning and inventory control (Hasan et al., 2022). Strategic procurement ensures the timely availability of raw materials while minimizing costs. Efficient production processes aim to optimize resource utilization and minimize waste. Effective inventory management helps in avoiding stockouts or overstocks (Shorna et al., 2020).

Distribution and logistics are key components of the FMCG supply chain as they enable prompt delivery of products to retailers and end consumers alike. Given the high demand for FMCG products combined with their short shelf-life nature requires efficient distribution channels that can meet consumer needs promptly.

Advanced technologies such as data analytics provide real-time visibility into various aspects of the supply chain enabling informed decision-making at every stage (Haque et al., 2022). Collaborative efforts with suppliers ensure a reliable flow of materials while collaboration with retailers helps in understanding market trends better.

Sustainable practices are an integral part of ensuring responsible supply chain operations which include reducing environmental impact through efficient resource utilization while also considering ethical sourcing practices.

In conclusion, robust risk management strategies are vital for mitigating potential disruptions within the FMCG supply chains thereby maintaining business continuity even during unforeseen events or crises.

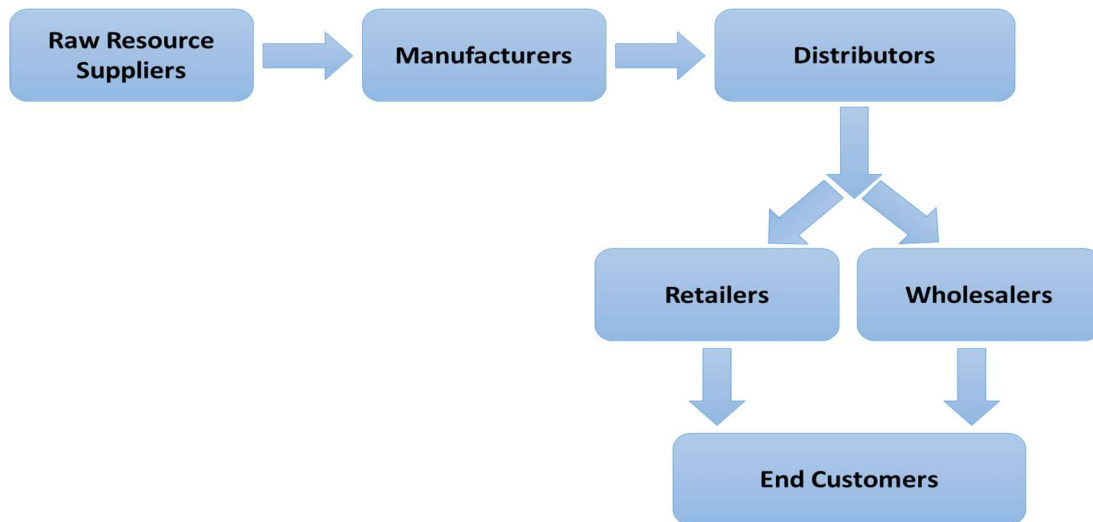


Figure: Supply Chain model of FMCG

Wholesalers: Wholesalers play a crucial part in the supply chains for Fast-Moving Consumer Goods (FMCG), which significantly rely on them. These wholesalers efficiently connect producers with consumers by acting as a middleman between them and retailers. They expedite the distribution process and ensure that merchants maintain a constant inventory of goods to satisfy customer needs by purchasing items in big volumes from manufacturers and selling them later in fewer quantities to retailers. Wholesalers take on the administration of logistics and inventory, as well as offering insightful market information, making them crucial linkers in the FMCG supply line (Alliance Experts, 2023).

Retailers: Due to the close association with wholesalers, retailers play a crucial role as vital linkages in the entire distribution chain. These organizations buy goods from wholesalers at wholesale rates and then sell them to customers at retail costs determined by businesses or suppliers. Retailers are the main consumer touchpoints via which FMCG items are made available to end users. Customers may easily find FMCG products thanks to their planned placement across a variety of physical places and internet channels including e-commerce sites. Retailers significantly improve the efficiency of the FMCG circulation system by giving a wide range of product options and individualized shopping experiences.

Consumers: The FMCG supply chain's final link, the consumer or end customers, eventually reaps the rewards. They operate as the final consumers who purchase and make use of items produced and delivered by wholesalers and retailers. Customers represent the culmination of this complex process, where success is highly dependent on their satisfaction. Their purchase decisions have an impact on the demand for the products, inventory control, and manufacturing strategies. Protecting consumer rights while ensuring flawless product accessibility and quality is of the highest significance in maintaining a thriving market ecosystem since it is a driving force behind the

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FMCG supply chain. Both FMCG firms and stakeholders may increase the overall efficacy of supply chains while fostering enduring loyalty among consumers by focusing on client demands and preferences.

Within the Fast-Moving Consumer Goods (FMCG) supply chain, wholesalers and retailers both serve essential functions. Retailers communicate directly with wholesalers, buying commodities at discounted rates before selling them at the retail rate to ensure that FMCG products are accessible to the end customers via physical retail stores or online platforms, respectively. Wholesale suppliers function as mediators pairing producers with retailers by facilitating the distribution method through large-scale purchases subsequently followed by fewer sales measurements (Champion, 2023).

2.3 FMCG Supply Scarcity in Residential Areas and Its Impact

Consumers and companies face significant challenges and repercussions as a result of the inadequate supply of Fast-Moving Consumer Goods (FMCG) in residential areas. Reduced accessibility of goods and dissatisfied customers are caused by the sparse appearance of retail businesses and the inconvenient possession of FMCG items in housing communities. Residents' overall purchasing experiences are negatively impacted by the hassle and increased transportation expenses to get necessities (December & Noyon, 2019). Due to a lack of inventory in residential regions, FMCG firms also experience missed revenue possibilities and decreased market penetration. Without the goal to improve consumer happiness, maximize supply chain effectiveness, and fully realize the potential presented by the inside FMCG market, it is difficult to handle the current scenario.

2.4 Consumer Goods and FMCG Products

Consumer goods and Fast-Moving Consumer Goods (FMCG) products form integral components of the intricate supply chain network, catering to the immediate requirements of end consumers. Consumer goods encompass a diverse array of products, ranging from durable goods such as electronics and appliances to non-durable goods including food, beverages, and personal care items. FMCG products specifically pertain to those with swift turnover rates and short shelf lives; examples include daily groceries, toiletries, and packaged foods. Due to their inherent nature, these products necessitate an exceptionally streamlined distribution chain that can effectively adapt to the ever-fluctuating consumer demand (Manders et al., 2016).

Experts specializing in supply chain management hold a pivotal role in optimizing critical aspects like inventory management, demand forecasting accuracy levels along with production planning strategies for manufacturers. Furthermore, they are instrumental when it comes to devising efficient distribution models ensuring seamless flow from producers through retailers directly into consumers' hands.

Given the dynamic nature of FMCGs real-time transparency across all stages is mandatory along with effective logistics management while agile decision-making capabilities become invaluable contributing factors towards meeting customer expectations ultimately driving profitability as well as maintaining competitiveness within today's market landscape (Ridwan et al., 2021). Supply chain professionals make it easier for consumable goods and FMCG items to be delivered successfully by utilizing advancements in technology, encouraging partnerships, and implementing ecologically sound procedures. This raises overall customer contentment and promotes corporate expansion.

2.5 Procurement Procedure

Necessary fast-moving consumable products (FMCG) procurement is a critical step in ensuring the prompt and economical sourcing of initial supplies and finished items in metropolitan regions. Supply chain specialists carefully examine market trends and need to predict customer demand to facilitate effective procurement scheduling. To ensure an uninterrupted supply of top-notch FMCG items, they forge strategic alliances with trustworthy vendors and bargain for advantageous conditions. Supply chain professionals use cutting-edge technology and data analytics to shorten lead times, optimize the amount of stock on hand, and expedite acquisition processes to ensure the effortless delivery of FMCG items from producers to urban shops. The supply chain aids FMCG firms to adapt quickly to market adjustments, satisfying client requirements, and improving their logistical performance in metropolitan areas by concentrating on agile procurement techniques.

2.6 Target Audience and Area Coverage

Urban people who live in multiple housing developments and towering buildings make up the fast-moving consumer goods (FMCG) industry's primary target market in residential neighborhoods. These housing areas with high densities of people provide a sizable client base for FMCG goods. The geographic span includes several housing projects, gated communities, and residential areas located in metropolitan areas. Supply chain associates have to place a high priority on the effective delivery of FMCG goods to these regions, ensuring product availability, satisfying a range of consumer expectations, and increasing customer satisfaction (Chhabra, 2018).

Our research endeavors to scrutinize the underlying causes of supply chain deficiencies in daily consumer goods in housing developments. The target audience comprises customers between the ages of 16 and 60 who routinely use daily necessities across a range of occupations for the purpose to achieve the greatest possible optimal outcomes from this survey. Besides, we concentrate on retailers and sales executives that work for FMCG firms as important sources of real data collecting. The entire data is acquired for this particular study project from people living in the designated locations as well as from retailers' entities and sales representatives connected with multiple enterprises around the Dhaka Metropolitan City.

2.7 Residents' Socioeconomic Conditions

Modern residential areas' socioeconomic circumstances vary widely and are impacted by several elements, including residents' financial status, educational attainment, work prospects, and availability of essential facilities. These areas frequently have a mixture of middle-class families, wealthy individuals, and low-income groups, which results in a wide range of consumer purchasing power. In the Bangladeshi economy, there are typically three socioeconomic classes: lower class, middle class, and upper class. The middle class is further segmented into lower-middle and upper-middle categories. Accordingly, lower-upper and higher-upper classes are likewise split into the upper class. The upper-upper category is composed of the members of privileged society and elite families, whereas the lower-upper class is accumulated up of those who have gained money via trading or ventures. Higher than a quarter of the nation's assets are held by wealthy individuals. Inhabitants of Dhaka's urban domiciling zones are mostly from the middle and higher classes. Residents' buying habits, choices for FMCG items, and brand commitments are influenced by their economic standing. To successfully satisfy the expectations of citizens in residential neighborhoods in Dhaka and to adapt to their specific requirements, distribution tactics, costing, and advertising strategies must take these social and economic variables into account (World Bank Blogs, 2012).

2.8 Consumer Behavior

Numerous elements that are closely related to people's socioeconomic status, way of living, and specific interests influence consumer behavior in residential neighborhoods. Comfort, easy access, satisfactory quality, and price factors all play a vital role in the process of deciding for buying fast-paced consumables (FMCG). The frequency and number of spending undertaken by inhabitants are significantly influenced by the closeness to retail facilities like superstores and neighborhood grocers. In addition, customer decisions are influenced by company image, referrals from others, and commercials. Supply chains can reliably predict alterations in demand and create ways of distributing that respond to them through carefully analyzing data about consumer buying patterns to get a significant understanding of purchase habits. Through this knowledge, they can formulate dissemination methods that are tailored to the wide range of necessities present in residential regions. Eventually, these tactics improve overall satisfaction phases, which encourages enduring customer loyalty (Turvey, 2022).

2.9 Supply and Demand

The rate of population growth, demographic information, and the financial state of the locals all have an impact on the consumer need for housing developments. The accessibility of a wide range of products and the vicinity of retail facilities have substantial impacts on customer interest. Housing layout in the US and Europe, where there are some legislative concerns, like the lack of commercial establishments within the gated society and housing zones for security reasons, is largely what motivated the development of the existing residential locations (STEINER &

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BUTLER, 2007). They are 1-2 kilometers from the nearest essential shopping alternatives, but they are not bothered because they have their transportation systems and access to economical transportation fuel. Because of the scarcity of private vehicles and the high cost of automotive fuel, several of these residential laws are not spatially logical from the standpoint of the domicile zones inside Dhaka. The occupants struggle to receive daily requirements promptly because of complying with foreign residence standards. The amount and variety of the closest grocery stores are insufficient to meet the needs of the region's population. Community members have little choice but to rely on faraway supermarkets or online marketplaces. Hence, the distribution methods must be tailored by FMCG firms along with supply chain practitioners to guarantee an ongoing flow of goods and prevent shortages in supplies (Rahman et al., 2020).

2.10 Long-term Impact

The long-term purpose of this research investigation is to put into practice a sustainable approach that tackles the retail goods supply network deficiency in Dhaka while simultaneously taking into consideration the distinctive attributes of residential neighborhoods. If this study project turns out well, we will be able to pinpoint the underlying causes of the main problems and figure out an exact demand-to-supply proportion in certain areas of residence. We will also be able to investigate different strategies targeted at descending the developing issue related to FMCG delivery into private residences by leveraging the use of primary data analysis.

Research Methodology and Methods

3.1 Introduction

The research collects and analyzes data in several methods. The main objective of the study evaluation is to highlight supply chain issues specific to FMCG products that are absent from the residential market. The purpose of the research methodology is to determine the veracity of the problem and to learn what the customer, company, retailer who lives in the housing neighborhood, and the producer of FMCG items, think about it. This research intends to present a synopsis of the FMCG supply chain management method in the residential market.

According to Kumar & Phrommathed's publication, the research technique is utilized to assess the dependable data that has been gathered to get to a constructive or sensible conclusion for the given issue. The information is also employed to suggest or foresee potential remedies for the problem utilized to advance the industry in the coming years (Kumar at al., 2005).

3.2 Research approach

This study was carried out after reviewing the conclusions and findings reported in several publications and journals by well-known writers. The interruptions in supply chain activities caused by such issues were the subject of those research publications. In this article, the supply chain interruptions of FMCG items in residential regions have been examined using primary data. Through the use of questionnaires, primary data for this research was collected from three distinct

sources, including consumers, retailers, and companies. The SPSS program was used to analyze the acquired data and produce the mean, median, mode, and standard deviation that are presented in this study.

3.3 Data collection

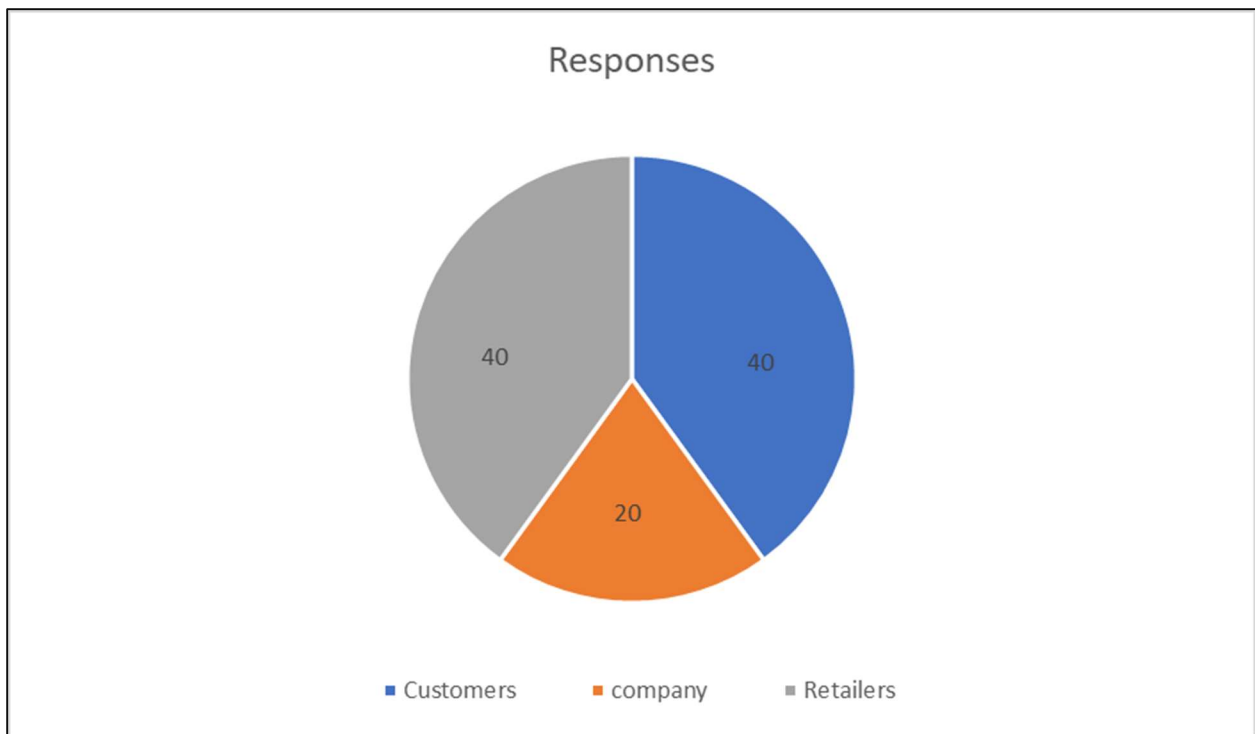
First, data on the most frequently purchased items and their conventional distribution networks were collected from 15 publications, and the results were utilized to compile the questionnaire's data. When acquiring primary data, the questionnaire technique was used. This research developed a nine-question questionnaire framework incorporating the demand for FMCG items, their traditional supply chain technique, issues with the present system, a repair for the issue, and opinions from companies and consumers on the suggested fix. Three separate groups of people—customers, retailers, and producing companies—were surveyed to learn more about the topic.

3.4 Research Strategy

Primary data from several areas in Dhaka were gathered for this study using a questionnaire. The data is subsequently examined using the SPSS program. The mean, mode, median, and standard deviation are calculated after data analysis to juxtapose the data.

A total of 50 responses were logged and examined. And those responses came from enterprises, merchants, and consumers.

Respondent	Frequency	Percentage
Customer	20	40%
Company	10	20%
Retailer	20	40%



Our data study demonstrates that 85% of consumers say they desire FMCG items in their neighborhood. Additionally, 70% of the businesses supported such items. 40% of shops, however, do not wish to accept such items.

3.5 Research Methods

Surveys are employed to collect the research's main data, and descriptive data analyzed using SPSS is used to assess statistical relevance and feasibility.

3.6 Analyzing Data

Statistics

	Types of participants	Is the existing supermarket cozy for your shopping?	Any demand for FMCG stores in your area?	Is it convenient for you to buy daily necessities inside your residential area?	Facing hurdles while supplying in residential areas?	Will you allow dedicated FMCG stores installed in high-demand residential areas?	Retail shops have high installation costs in residential areas. Do you agree?	Are there any direct products supplying platforms inside your area?	Will you appreciate installed shops if increasing sales in your area?	If companies provide direct product supply, will you open your retail shop inside your residential area?
Data size	50	50	50	50	50	50	50	50	50	50
Mean	1.00	0.48	0.40	0.36	0.50	0.36	0.40	0.74	0.24	0.34
Median	1.00	0.00	0.00	0.00	0.50	0.00	0.00	1.00	0.00	0.00
Mode	0	0	0	0	0	0	0	1	0	0
Std. dev.	0.904	0.505	0.495	0.485	0.505	0.485	0.495	0.443	0.499	0.479
Min	0	0	0	0	0	0	0	0	0	0
Max	2	1	1	1	1	1	1	1	1	1

Description:

We asked the buyer whether they thought it was easy to purchase essential items from inside their neighborhood. The majority of respondents—nearly 50%—believe it would be practical for them. As a result, there is a market for FMCG goods there. And residents in residential regions are interested in these goods.

In actuality, data research shows that respondents from certain residential regions with a high level of demand desire FMCG items to be accessible nearby. However, within the residential area, there is barely any direct product supply infrastructure.

In addition, despite receiving direct supplies from the firms, vendors are hesitant to construct a store within a residential neighborhood, according to replies.

As a consequence, we discovered via analysis of the available information that there is a consumer base for FMCG goods in residential communities.

3.7 Limitations

This article was able to identify the issues that consumers are having as a consequence of the dearth of FMCG goods. This analysis, however, was unable to identify the true reason for the lack of FMCG products in residential areas. Family members who have limited time to obtain their daily

essentials have a serious problem since family pack items are almost hard to locate in residential regions. We were struggling to find a solution for this specific issue in this case. This article's primary flaw is the fact that we still don't know how to solve the problem of the dearth of FMCG goods.

3.8 Data Analysis and Findings

In this particular portion, the obtained data will be in-depth examined, leading to the discovery of significant results. Next, the important ramifications of those discoveries will be presented, along with a thorough analysis of the dramatic changes they caused.

Result and Discussion

4.1 Research Findings

Here is a list of the issues that were found during the first data-gathering process utilizing the questionnaire:

1. About 60% of respondents say that they want assistance in locating their chosen FMCG goods within the residential neighborhood. The local consumer, merchants, and corporations together contributed 60% of that total.
2. People generally concurred that the most essential FMCG items, such as family packs of common home items, are not offered at the close-by stores where they buy their goods.
3. Everyone has claimed responsibility for the lack of FMCG items in residential neighborhoods, including consumers, companies, and even local retail outlets, whereas this article investigates if a lack of supplies and mismanagement may be the reason.
4. The majority of individuals working in this business agree that it costs them time and money to not be able to buy the FMCG items they desire in residential areas. They are reluctant to get an FMCG product when it is urgently required at home.
5. People also provided a variety of answers when asked to provide remedies for the supply chain's problem. Customers recommended, for example, that the business establish a system for delivering items to customers' doorsteps at no extra cost, but the business argued that residential areas should provide them a facility to store goods for rapid delivery at no extra cost. Neighborhood officials said that they would assist any company in establishing a system that would be advantageous to them.
6. When inquired who was accountable for the dearth of accessibility of FMCG items in residential areas, consumers said that the product firms couldn't get in touch with them, and the product businesses pointed the finger at the rules that apply to such locations.

The report stresses that fast-moving consumer goods (FMCG) are in high demand in residential regions. However, meeting this demand presents a significant challenge for neighborhood shops and other local companies. This shortage is particularly difficult for those who are enthusiastic

about maximizing their time. The inability to easily acquire essential FMCG items disrupts their daily routines and time-saving attempts. Retailers, distributors, and manufacturers must work together to find a solution to this issue. By satisfying residents' objectives of time savings, optimizing supply chains, and ensuring regular availability of FMCG items, this aggravation may be remedied. By resolving the supply-demand mismatch and enhancing everyday living in these residential communities, such measures would strengthen relationships between the community and businesses.

4.2 Impact and Changes

In residential regions, the lack of FMCG items has become a significant problem. The demand for FMCG items has been growing daily in residential areas. Despite a high level of demand, there is a relatively little supply of goods that are required. The lack of FMCG goods in residential areas has caused several significant effects, including:

1. Customers' primary annoyance is the lack of FMCG items at the shops closest to them. Customers may eventually get uncomfortable as a result, which might negatively impact how they see local retail offerings and the standard of living.
2. Having to go a great distance to get essential FMCG goods may make residents in residential areas unhappy.
3. To avoid making repeated trips to the grocery, consumers must purchase things in bulk. For FMCG businesses and retailers alike, this may have a detrimental impact on managing inventories and demand forecasts.
4. The lack of FMCG items in residential areas may cause a decline in local grocery and retail shop foot traffic. The viability of these enterprises will suffer as a result.
5. Local stores may not provide a wide variety of FMCG items, leaving residents in residential regions with relatively few options for these goods.
6. They must use both digital and physical means to buy such FMCG items, which raises the cost of delivery or transportation.

These are some of the problems with the lack of FMCG goods in residential areas. As we can see, locals are using FMCG products—which are readily accessible in little quantities—as their daily essentials. These effects and modifications are discovered via a close examination of consumer actions and interactions in the neighborhood.

4.3 Overview

It was feasible to pinpoint the issue of inadequate quick-moving consumer goods (FMCG) item accessibility inside the residential enclave via the analysis of primary data. It's clear that the local populace wants to buy a lot of FMCG items, but the nearest shop doesn't carry them, therefore their desire goes unfulfilled. The presence of this problem was established by a thorough survey that was conducted among several residents. The reverberation of their shared anxiety grew audible as they reaffirmed their limits. It goes without saying that if initiatives were done to launch

the desired FMCG items, residents would be satisfied. This insightful knowledge was acquired by using a properly crafted questionnaire.

Recommendation

To bridge the gap in the supply chain for fast-moving consumer goods (FMCGs) within residential areas, the Bangladesh government and housing communities can collaborate to establish a dedicated platform that will also contain a strong online presence. From the researcher's point of view, we have some suggestions:

- ✓ This collaborative effort will involve signing agreements with FMCG companies to form partnerships that offer SKUs at dealership rates instead of retail rates, thereby creating an alternative distribution route for these goods.
- ✓ Each housing committee will allocate suitable inventory points within their communal areas based on regional population and land area size. A housing secretary will be appointed by each committee to oversee the management of inventory provided by companies. Furthermore, profit sharing among committee members will contribute to community welfare and platform maintenance.
- ✓ To ensure transparency and efficient operations, an online platform will be developed utilizing cloud-based supply chain management technology (Haque et al., 2020). This platform will feature multiple interfaces that enable real-time tracking of data for companies, monitoring authorities responsible for overseeing the platform's functionality and return policy (Ridwan et al., 2021), as well as registered customers.
- ✓ For prompt delivery within proximity (within a 30-minute distance), bicycle riders can be introduced as part of an economical delivery system aimed at minimizing charges while reducing carbon footprint emissions. This approach ensures swift home deliveries specifically tailored for residential zones.

By implementing this comprehensive strategy encompassing collaboration between government entities and housing communities along with innovative technological solutions such as cloud-based platforms and bicycle riding delivery services, the aim is to address supply chain challenges effectively to provide convenient access to FMCGs within residential localities.

Research Limitation

The investigation's goal was to ascertain why some items weren't accessible in residential regions. The investigation was unable to draw a firm and precise result since there aren't numerous housing developments outside of Dhaka. The demand for FMCG items in Dhaka's residential areas was found after data was collected and analyzed, albeit this study does not describe the situation nationally. This article concentrates on residential areas; as a result, other locations with significant FMCG consumption are not considered. The analysis was unable to pinpoint the best choice due to restrictions in residential zones and differences in legislation and rules from one residential neighborhood to another. More investigation is needed to establish why FMCG items are not easily accessible in private neighborhoods at affordable costs.

Conclusion

According to the study's results, residential regions have a scarcity of daily required FMCG items since there is a shortage of local retailers. It takes them longer to buy it from superstores, other shops, or even online sellers due to growing transportation expenses. Even in a dire situation, people cannot get the supplies they need. The findings were established using information from the questionnaire, which was assembled by compiling assumptions from actual contacts with clients and companies. A review of the pertinent theories, frameworks, and literary entities was also included. In Dhaka's residential areas, the demand for FMCG items, the lack of product variety, and the elevated transportation expenses related to them were emphasized. The descriptive techniques of data collecting, the development of the questionnaire, and the research methodologies were also emphasized to aid the reader in a better understanding of the research process. The study report concludes by outlining how affordable FMCG items are lacking in residential regions due to the inconvenient rules in housing regions and the current distribution chain in such zones.

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Appendix

Questionnaire for company, retailers, customers

For Consumers

- ✓ Is the supermarket where you do your shopping now comfortable for you?
 - Yes
 - No
- ✓ Is every product available in nearby stores from where you purchase?
 - Yes
 - No
- ✓ Is there any demand for FMCG stores in your residential area?
 - Yes
 - No
- ✓ Is it convenient for you if you can buy the necessary products inside your residential area?
 - Yes
 - No
- ✓ Is there any necessity FMCG purchasing platform in your residential area?
 - Yes
 - No

For FMCG Company (TM)

- ✓ Do you face complications while supplying in residential areas?
 - Yes
 - No
- ✓ If some dedicated FMCG shops are installed in high-demandable residential areas, will you accept that?
 - Yes
 - No
- ✓ Do you think FMCG retailing shops are profitable in residential areas?
 - Yes
 - No
- ✓ If the installed shops can increase your sale in residential areas, will it be appreciable to you?
 - Yes
 - No

For Retailers

- ✓ Retail shop installation cost is high in residential areas. Do you agree?
 - Yes
 - No

- ✓ Are there any direct products supplying platforms inside the residential area?
 - Yes
 - No
- ✓ If companies provide you with direct product supply, will you open your retail shop inside the residential area?
 - Yes
 - No
- ✓ Are the dwellers of residential areas always ready to purchase from you?
 - Yes
 - No
- ✓ Do you think a retail shop inside a residential area will minimize your selling area coverage?
 - Yes
 - No