A COMPREHENSIVE REVIEW ON THE ORDER FULFILMENT STRATEGIES AFFECTING THE CONSUMER BEHAVIOUR IN ONLINE GROCERY RETAILING

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Abstract

The study offers a comprehensive analysis of consumer behaviour and order fulfilment in the e commerce scenario. A critical review of the literature into the order fulfillment strategies and their influence on consumer behaviour in online grocery retailing is discovered and presented. The primary emphasis is on the recent innovations in the technology with the intention of improving the quality of customer service standards. The study concluded that online grocery retailing merchants must be aware of each customer's unique needs and provide services in line with those needs. Online grocery retailers are required to provide high-quality goods throughout their convenient time windows. To entice customers and keep all possible routes open to deliver the orders at the stipulated time frame. It's interesting to note that the challenges in the implementation of online grocery shopping have been overcome with the advent of the latest technologies to capture the Indian market.

Introduction

The development of cutting-edge fulfilment strategies for online purchases has emerged as one of the most significant challenges facing brick-and-mortar merchants. Because of the increased competition from purely online players, it is no longer feasible to only concentrate on in-store revenue. Retailers are always creating innovative strategies for the fulfilment of online orders and the management of last-mile logistics. In light of this, reducing lead times even further is becoming an increasingly crucial priority. The idea is particularly pertinent in the context of retail establishments that provide expedited delivery services. It is analogous to a problem of vehicle routing with many depots, in which all of the facilities function as depots, and orders are distributed among them according to the processing and transportation expenses besides the delivery capacity that is available. Customers want all of their stuff to arrive at the same time. Instead, it is necessary to designate a depot for every order that is received. Before orders can be sent to depots, we have to verify that we have the necessary inventory on hand. This check verifies that the depots that have been chosen for a particular customer have all of the items that have been requested and are available right now. In addition to distribution centers (DCs), there is an increased number of merchants from whom customers may choose products and have them delivered. In order to meet our urgent operational challenge of providing prompt fulfilment, we are only considering sites that

have enough inventory. This is as a result of the fact that we are concentrating on the operations that are farther downstream in the order fulfilment process. These procedures include the supply of end-users from picking sites. In addition, hints that the decision-making process does not take into account the inventory levels or replenishment timetables, despite the fact that these were facts that were known in the past. This is one of the ways in which our assignment and vehicle routing problem is distinctive from inventory routing issues.

Theoretical Background

Customers must be present at their residences in order to accept their orders, particularly those that involve the delivery of frozen or chilled goods *(Agatz et al. 2011)*. Because of this, it is necessary to include timing windows for deliveries made to attended homes. The inherent difficulty of the routing with time restrictions is made much more difficult by the exigency of the short-term delivery needs. In addition, since the delivery time is restricted, trucks are only able to visit a certain number of clients during that period of time, which means that the length of the route is also constrained. The proximity of clients to businesses is obviously advantageous for the stores, as it allows the stores to make deliveries with a shorter lead time and within relatively short time periods. This is an advantage that is not lost on everyone. The various sites run their own delivery fleet, which might range from standard delivery trucks to delivery bicycles. The number of vehicles employed also varies from place to location. In most cases, a single depot is responsible for the operation of a constant number of vehicles that match the features of the depot.*(Laporte et al., 1988).* Additionally, a variety of municipal establishments, referred to as "diamonds," that are situated in the core business center used to provide customers (circles). Grocery stores have a variety of depots, some of which are referred to as "dark stores" *(de Koster, 2003).* According to accounts from retailers, fulfilling online orders may account for up to 10% of in-store sales without materially affecting company operations or product availability *(Wollenburg et al., 2018).*

Problem description and fulfilment system

In this age of globalization, the Internet is being utilised more and more to enable online business transactions. These transactions are taking place not just between various business organisations, but also between business entities and their clients. The ubiquitous availability of the Internet in today's world has had a significant influence on the global marketing environment, and the Internet has given businesses the opportunity to broaden their commercial reach via the use of ecommerce. (Alkailani 2011)[1]. In spite of the tremendous expansion of online shopping and the positive growth projections for the future of this alternative shopping method, negative features are also being connected with this alternative shopping method. This is due to the fact that it is extremely difficult to evaluate a product or service in an online environment. (Laroche et al., 2005)[2]. An innovative notion that is quickly gaining favour in both the business world and the academic world is the completion of online transactions in a timely manner. The first thing we need to do is figure out how the planning issue is structured. As a consequence of this, this part

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[1] *Alkailan (2011), "Investigating Uncertainty Avoidance and Perceived Risk for Impacting Internet Buying: A Study in Three National Cultures. International Journal of Business and Management". Vol.6(5),pp. 76-92*
[2] *Laroche , Yang Z, Bergeron (2005), " Internet versus bricks-and mortar retailers: an investigation into intangibility and its consequences. Journal of Retailing".Vol. 81(4),pp.251- 267*

offers a summary of the context in which the issue is situated, conducts an analysis of the general benefits and drawbacks associated with various satisfying possibilities, and computes costs that are relevant to the decision. Customers may place their purchases for speedy home delivery using an online portal, at which point they are also given the option to choose a delivery window. After that, the orders that were placed within a certain time frame are fulfilled on specific trips. There is a possibility that the time frame and the lead time may be provided within the next hour. It is not possible to combine tours that take place during different time windows to complete the deliveries in the allotted amount of time; rather, the time windows themselves are based on the orders placed by customers. Since consumers want all of their items to arrive at the same time, it is not practicable to divide orders and distribute them to various depots.

Grocery Shopping - An Overview

The food and beverages that are regularly purchased from grocery stores are known as grocery items. Since judgments must be often made at regular intervals and since most people's attitudes regarding grocery shopping are habitual, mechanical, and thoughtless, there is little room for the "joy" component, grocery shopping is seen as a necessary, repetitive, and routine chore. Groceries are low participation, low information, and low risk items, according to (Raijas and Tuunainen, 2001)[3], therefore customers prefer to spend small time and effort as possible, purchasing these inexpensive but essential goods. Finally, people prefer to touch and feel the goods they are buying, which makes grocery high touch commodities. Since buying groceries is a rather regular action, customers often devote little cognitive resources to the process. They would prefer stick to their existing purchasing strategies, which take the least amount of work. However, compared to other enjoyable activities, consumers view and experience grocery shopping as a substantially and mentally taxing endeavour and time-consuming drudgery. (Coupey, 2009)[4].Online grocery shopping refers to ordering groceries online and having them delivered to your house (Peterson et al., 1997)[5]. Groceries have typically been purchased in shops where customers may touch and examine things before making a purchase and also manage the delivery of delicate items (Klein, 1998)[6].Tanskanen (2001)[7], revealed that 57% of the time spent shopping is done in automobiles, with the remaining 33% spent choosing and paying for items in stores. From the perspective of the customer, this implies that the purchasing process is time- and money-consuming. Consumers may look at online groceries as a way to get around this problem. It also emphasizes the fact that, despite the fact that ordering groceries online and having them delivered right to the door step is a trend that is on the rise and a viable option for many families, the adoption

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[3] *Raijas and Tuunainen (2001) "Critical factors in electronic grocery shopping. International Review of Retail, Distribution and Consumer Research". 11(3): 255-65.*

[4] *Coupey Hure & Cliquet , Petr . (2009) "Grocery shopping and the Internet: exploring French consumers" perceptions of the 'hypermarket 'and 'Cyber market' formats. The International Review of Retail, Distribution and Consumer Research.Vol.19(4), pp.437-455*

[5] *Peterson, Balasubramanian, Bronnenberg (1997)."Exploring the implications of the Internet for consumer marketing. Journal of the Academy of Marketing Science" Vol.25, pp.329-46.*

[6] *Klein (1998), "Evaluating the Potential of Interactive Media through a New Lens". Journal of Business Research. Vol.41: 195-203*

[7] *Tanskanen. (2002)"The way to profitable Internet grocery retailing – six lessons learned. International Journal of Retail & Distribution Management"Vol. 30(4), pp. 169-178.*

of online grocery shopping is still relatively uncommon and has room for growth due to the lack of certain sensory attributes (especially touch and smell) and the vulnerability of transportation. Consumers often choose to purchase durable food items over perishable ones due to expiry concerns and the inability to touch and feel specific supermarket products online. There is a lot of potential for electronic grocery commerce despite the barriers and challenges online grocery shopping is getting greater customer adoption. As opposed to customers who are used to buying groceries in a regular shop, individuals who are inclined to embrace online grocery shopping for its convenience and time-saving procedure. Online grocery stores, however, have a significant problem as a result of this rapidly expanding trend since they must balance their online and physical expenditure.

Objectives of the Study

The main objective of the research is to analyze the business strategies in order fulfillment in the online grocery retailing that have the most influence on consumer behaviour.

Methodology

The study employs a qualitative technique that is based on an examination, representation, and justification of the uniqueness of the phenomenon under inquiry, as well as the study's findings. The author conducted a thorough literature analysis to examine the previously published content in-depth. The method that is most effective in finding and evaluating reliable international journals is the systematic review because it saves both time and labour. A scientific method called as a systematic review or meta-analysis examines earlier studies that have been selected based on standards to create scientific originality on the subject of the study that is being examined. On Google Scholar and Scopus, the standards for determining reputed international journals are listed. There were publications that may be used to complete this literature review study as a result of the selection that was made using these criteria. The technique of literature review was utilised to analyse and identify the factors, both positive and negative, that may have the ability to influence consumer behaviour.

Online Grocery Shopping Market in India:

The growth in demand for functional foods and beverages is identified as the key trend in the market. Consumers in India are becoming more health conscious and are opting for food and beverage products that have various functional benefits. Also, the number of consumers indulging in fitness activities is increasing in the country. This has driven vendors in the market to offer new products on their e-commerce platforms that are rich in nutrients and antioxidants and cater to the changing demands of consumers. Besides, e-commerce companies are partnering with local and international brands and making such products available to consumers through their online platforms. All these factors are expected to foster the growth of the market. The online grocery market in India is expected to grow by 617938.2 million rupees between 2022 and 2027 according to the reports of Technavio. The market is driven by the rapid growth in mobile-commerce. The market is witnessing an increase in the demand for mobile-based services or m-commerce. This can be attributed to the high penetration of smartphones in India. Mobile applications have increased the convenience of shopping. Popular e-commerce players such as Amazon have

switched from e-commerce to the m-commerce channel or operate through both mediums. Also, a majority of the population relies solely on smartphones for Internet access due to the increased number of mobile subscriptions. This has motivated offline stores and e-commerce players to switch to these platforms.

Order fulfillment strategies in online grocery retailing

Consumers are cost conscious but eager to upgrade their e-commerce experiences. Resulting from continuous technological advancement, shoppers are demanding seamless online experiences that align with their lifestyles. To meet these expectations, retailers are building efficient, customer-centric operational capabilities to increase their competitive advantage. Therefore, they are focused on implementing flexible fulfillment strategies to meet the needs of individual customers.

The quality of retail order fulfillment plays a pivotal role in delivering a positive customer experience. Well-executed fulfillment strategies help build customer loyalty, encourage repeat purchases, and drive positive word-of-mouth sentiments; conversely, substandard processes can lead to delays, order inaccuracies, damaged products, and dissatisfied customers.

To keep pace with customer expectations, sophisticated retailers are implementing order fulfillment options, such as buy online/pickup in store (BOPIS), curbside pickup, same day delivery option, drop ship strategy and automated route optimization.

Buy online/pickup in store is an e commerce option that allows customers to make online purchases and pick up the order in person, from a designated customer service or pick up area or outside a brick-and-mortar store.

Curbside pick up is a service offered by retailers where a customer places an order online and drives to their local store to pick it up. The customer parks in a designated area near the store entrance and when the order is ready, a store associate brings the customer's order out to them. The convenience curbside pick up is a powerful way for retailers to strengthen their omnichannel retail sales strategy.

Same day delivery option is an option which is given for prime customers who have obtained membership in the e commerce sites through frequent purchases. They are given the privilege of receiving the orders within the same day or order and sometimes even within few hours.

 When the online vendor makes a sale, it is forwarded to the center and they will fulfill the order by sending the product directly to the customer. The third-party logistics center will pack up and ship the products directly, so the vendor need not handle items before they reach customers. Once the process established, customers will be able to seamlessly buy a product, and the outsourced shipping provider will fulfill the order.

Automated Route Optimization is one of the most impactful ways to enhance last mile delivery efficiency is through route optimization. Automation software and algorithms can analyze

numerous variables, such as traffic conditions, delivery destinations, package sizes, and delivery time windows to determine the most efficient routes for delivery drivers. By minimizing unnecessary detours and reducing travel time, businesses cannot just improve delivery speed but also reduce fuel costs and environmental impact, which is a need of the hour.

Conclusion

It is also important to note that the Indian retail industry has grown to develop the fifth-largest retail market in the world, which reveals enormous potential for online grocery product marketing throughout India's metro and sub-metropolises. Since food is a fundamental need shared by all individuals, regardless of class or social standing, the grocery sector accounts for 60% of the entire market value of the Indian retail industry. India has seen growth in this sector. This sector has grown at a noteworthy rate and drawn significant investments from both venture capitalists and angel investors. According to service providers, using online grocery has a number of benefits for customers. Online grocery retailers are required to provide high-quality goods throughout their convenient time windows. Offering multiple fulfillment options can lead to increased sales, higher conversion rates, and better profitability. For example, offering BOPIS can drive incremental opportunities for upsell and cross-sell while reducing cart abandonment rates. Additionally, expanded pickup locations and vendor drop-ship options enable retailers to offer a wider range of products without incurring the cost and operational drag associated with excess inventory in-store. When retailers have visibility into how customers prefer to have their orders fulfilled, they're empowered to get ahead of potential fulfillment issues before they arise. For example, if a certain product is out of stock for a particular fulfillment option, providing that information early in the buying process allows customers to choose another method or adjust their expectations. This proactive approach helps retailers avoid negative customer experiences and reviews while reducing customer service inquiries. When customers have clear visibility into when and how their orders will be fulfilled, they're more likely to complete their transactions faster and with confidence, which results in higher conversion rates and increased revenue for retailers. Providing fulfillment data upfront also reduces cart abandonment, because customers aren't deterred by concerns about unknown shipping costs, availability, or other fulfillment-related uncertainties.

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