

The Impact Of Mobile Apps On Shopping Experience In Coimbatore Supermarkets

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ABSTRACT as smartphones and digital platforms have penetrated more and more, mobile applications have transformed consumer interaction with supermarkets and retail settings. Convenience, customization, and real-time grocery shopping have led to an ever-growing popularity of mobile apps in the city of Coimbatore. The research paper studies the effects of mobile applications on consumer shopping experience in supermarkets in Coimbatore in relation to satisfaction, convenience, repeat purchase and customer loyalty. A well-designed questionnaire was administered to 250 respondents, and the data were analyzed using SPSS, employing descriptive statistics, ANOVA, correlation, and regression methods. The findings showed that the main features of this app, i.e., convenient navigation, online payment, loyalty programs, and personalized offers, enhance the shopping experience dramatically. There was a very positive correlation between the use of the app and customer satisfaction and when using regression analysis, mobile app engagement was found to be a significant predictor of loyalty and repeat purchase behaviour. The researcher concludes that mobile applications are strategically significant in influencing consumer behaviour and this provides an excellent opportunity to supermarkets to improve customer engagement and competitiveness.

Keywords: Mobile applications, customer satisfaction, supermarket shopping, digital convenience, consumer loyalty, SPSS, retail technology, Coimbatore, purchase behaviour and App engagement.

INTRODUCTION

Mobile apps have disrupted the retail shopping arena in a short time by providing shoppers with greater convenience, instantaneous access to information, and a tailored experience. Over the past few years, mobile applications have been essential to supermarkets as a means of customer engagement, operational efficiency, and increased customer satisfaction during the shopping experience (Kamble et al., 2023). Digital shopping lists, loyalty programs, in-app payments, product navigation, and push notifications have transformed the customer journey to more of a blended journey as opposed to the physical journey. This digital transformation trend is characterised by Coimbatore, a fast-growing smart city in the state of Tamil Nadu. As the smartphone penetration and technological savvy customers are growing, supermarkets in Coimbatore are incorporating mobile application in their business to address the changing customer needs (NielsenIQ, 2023). The shopping process is more efficient, as now consumers are more willing to pre-order, see discounts, and use digital checkouts, all with their phones in hand (KPMG India, 2022). Nevertheless, with the increasing application of these apps, little scholarly understanding exists regarding how these apps, in particular, affect the shopping behavior and satisfaction of the consumers in the supermarket segment of Coimbatore. The proposed study plans to fill this gap by studying how mobile app usage can improve in-store and online shopping experience of supermarket consumers in terms of ease of use, personalization, convenience, and post-purchase engagement.

PROBLEM STATEMENT

Although the use of mobile application is increasing rapidly in the retail business, little has been understood on how these technologies impact consumer behavior and satisfaction in the supermarket business especially in the emerging cities such as Coimbatore. Although most supermarkets have embraced mobile applications to enhance convenience, engagement, and loyalty, the effectiveness of the digital tool in augmenting the overall shopping experience still remains unknown. Shoppers in the current time demand smooth, customized, and time-saving experiences, and mobile applications appear as a major catalyst to bring about this change. But without local research, it is challenging to know whether such apps are really satisfying the customers in application, trust, functionality, and after-sales satisfaction.

Since Coimbatore is a place where the digital adoption is on the rise, and the consumers have varied behavior, there is no empirical evidence of the role of mobile applications in influencing purchasing behavior, in-store navigation, or creating long-term loyalty. This paper aims to fill this gap by exploring the practical effect of supermarket mobile apps on the shopping experience by consumers in Coimbatore.

NEED FOR THE STUDY

The incorporation of mobile applications in the retailing business has changed consumer-supermarket interaction to a considerable extent. In India, particularly in urban and semi-urban regions such as Coimbatore, mobile applications are increasingly used to shop groceries with the advantages of convenience, real-time availability of offers, and payment options. Nevertheless, despite the rapid growth in the use of mobile applications, the very effect of the consumer shopping experience has been poorly researched, especially regarding the local supermarket chains. In the quest to stand out of a competitive market, supermarkets have turned to mobile apps as a means of increasing customer satisfaction, loyalty, and engagement, and this has made it important to know how effective the mobile app is in achieving customer satisfaction, loyalty, and engagement. The question here should be as to whether these apps are actually making shopping experience a better experience in terms of browsing products, availing discounts, making purchases and getting after sales services. Furthermore, the results of this kind of research can enable the supermarket managers, app developers and retail strategists to make evidence-based changes to the mobile app design, user interface, personalization and customer support features. This study fills a local knowledge gap by paying attention to Coimbatore, which is also a fast-growing city, and providing relevant suggestions regarding the shopping behavior and preferences of the consumers in the city. Therefore, this research is needed to comprehend the expectations of the consumers, what is the level of satisfaction and how mobile applications are making an impact on the current shopping behavior in the supermarket industry.

LITERATURE REVIEW

The rising trend in mobile applications usage in retail has transformed the experiences of consumers by providing better convenience, product availability in real-time, and customized shopping experiences. Mobile apps are no longer considered an optional feature but the key to determine customer satisfaction and loyalty. Conducting a retail environment case study, Grewal et al. (2020) reaffirm that mobile applications in the shop market have enhanced the level of engagement and operational efficiencies with the help of mobile features such as digital catalogs, in-app purchases, and proximity-based offers to better the daily operation. The concept of mobile apps and creating consumer-centric innovation is also addressed by Kamble et al. (2023), since they provide an opportunity to design effective solutions to the challenges faced by the retailers to cope with dynamic consumer requirements.

The usefulness of mobile apps, ease of use and personalization are some of the factors that affect consumer behavior on mobile app use. Dabholkar and Bagozzi (2021) recommend that customers are inclined to apply self-service technologies, such as mobile applications, as soon as they take them to be reliable and simple to use. This is also asserted by Venkatesh and Davis (2000) in their extension of the Technology Acceptance Model (TAM) which affirms that ease of use, perceived utility are the prime movers towards the adoption of technology. According to Jadhav and Khanna (2022), the tendency is that the Indian consumer is spending much time using the mobile app to not only navigate and compare prices but also preparing purchases and treading deliveries.

Mobile apps have their niche in the context of supermarkets, focused on frequent and list type of shopping. When it comes to grocery retailing, Bai et al. (2022) mention that such features as generating a shopping list, product availability tracking, and individual tailor-made deals are most effective. Some such apps in India, such as BigBasket and JioMart, have become popular as they enable time and contact-free (2) shopping during and after the COVID-19 pandemic (KPMG India, 2022). The adoption however differs in Tier-2 cities such as Coimbatore based on digital literacy, language and user friendliness of the application (NielsenIQ, 2023).

Moreover, some studies indicate the close connection between the customers satisfaction and the use of mobile apps. The individual notifications, interactive interfaces, and loyalty have been identified as

valuable tools to increase customer engagement and retention (Chopra and Madan, 2021). This is rather the opposite because sluggish app performance, programming issues, and unavailability of customer service may ruin the user experience. According to Kamble et al. (2023), customer relationships are fragile in emerging markets because they rely on the trust and decent refund policies of the app-based customer relationship.

Nonetheless, irrespective of these global ideas, one obvious gap that any individual will notice that lacks are localised studies to examine how mobile apps are affecting the consumer behaviour in the urban centre such as Coimbatore. Although extant literature substantiates the advantages of mobile applications in augmenting the efficiency, satisfaction and loyalty of the shopping process, there is a paucity of empirical evidence to express how such apps are viewed and utilized by consumers in the supermarkets within Coimbatore. The following research will help us fill that gap as we are analyzing user experience, feature of the applications, and satisfaction rates in the area and will provide data-driven suggestions to retailers who might want to enhance their online engagement strategies.

OBJECTIVES OF THE STUDY

1. To explore how shoppers in Coimbatore use mobile apps during supermarket visits.
2. To identify which mobile app features improve the shopping experience.
3. To assess whether mobile app usage increases convenience and satisfaction.
4. To understand how mobile apps influence repeat purchases and customer loyalty.

RESEARCH METHODOLOGY

The quantitative and descriptive research design is used in this research study to analyse the effects of mobile applications on the shopping experience of the supermarket consumers in Coimbatore. The reason the research is based on gaining knowledge of how mobile apps affect customer satisfaction, convenience and the general behaviour of shopping. The target population is represented by people aged 18 and more who have applied mobile applications to make the purchase in supermarket-related purchases during the last six months. The information is gathered by means of a convenience-based method in which a number of 250 respondents are chosen according to accessibility and willingness to respond. A structured questionnaire will be drawn to collect data on a structured format with multiple-choice and Likert questions in dimensions like the frequency of apps use, its ease of use, the desired features, satisfaction, and impact on the buying intentions of the repeat. It will conduct survey online and also at supermarket premises to have diversity in answers. Their analysis done based on the use of IBM SPSS software, descriptive statistics (frequencies, means, percentages) summary of data are used. In addition, cross-tabulations and correlation analysis is done to test the relationships existing between the variables of interest which include app usage and consumer satisfaction. The SPSS offers a sound platform to analyse the data and achieves the correctness in the interpretation of results. The study however has geographical bias in that it focuses on Coimbatore only and it uses self-reported method which can elicit response bias.

RESULTS AND DISCUSSIONS

Analysis of Socio-Economic Profile

Most of these participants were aged between 18 to 30 years, meaning that a younger generation favours mobile app-based shopping. The females were a bit more recognized than males implying that they were involved in making household purchases. A well-educated and tech-smart consumer base was indicated by most of them having undergraduate or postgraduate degree levels. In the earning level, a significant percentage had an income of 30,000 to 60,000 per month which is the middle-income bracket that is both convenience and savings oriented. Most of them were working or self-employed people, which demonstrated that people who work want their app to be efficient in the sphere of mobile shopping. The websites/ stores such as Bigbasket, Jiomart, and Amazon Pantry were the popular ones, and most users utilized the applications at least once a week. In general, the statistical analysis demonstrates that the main user segment of supermarket mobile applications in Coimbatore is young, educated, and working middle-

income customers, which is why special attention should be paid to marketing and engineering the application to this segment.

Mobile App Usage among Supermarket Shoppers in Coimbatore

Table 1: Analysis of Mobile App Usage among Supermarket Shoppers in Coimbatore

Mobile App Usage Variables	Categories	Percentage	Pearson Chi-Square Value	df	Sig.
Frequency of App Usage	Daily	18.40%	21.642	3	0.000
	2-3 times a week	34.00%			
	Once a week	29.60%			
	Occasionally	18.00%			
Purpose of Using App	Product search	31.20%	26.385	3	0.000
	Availing discounts	38.80%			
	Placing online orders	22.40%			
	Browsing and reviews	7.60%			
Preferred App Platform	BigBasket	35.60%	18.702	3	0.000
	JioMart	30.80%			
	Amazon Pantry	24.40%			
	Store-specific apps (e.g., Reliance Smart)	9.20%			
Type of Purchase via App	Grocery & essentials	49.20%	20.835	2	0.000
	Household items	37.60%			
	Electronics or appliances	13.20%			

The study of mobile phone applications usage by the shoppers at super markets in Coimbatore shows in depth knowledge concerning consumer behaviour. Most participants said that they use mobile apps frequently, with 34 percent of them using mobile apps 2-3 times in a week and 29.6 percent once in a week, which means that mobile apps became their part of shopping process. The strong engagement with the digital world is marked by a significant number of the apps, 18.4 percent, being used on a daily basis; furthermore, measuring occasional usage, 18 percent of people may use it. The reason behind the installation of the application differs, and the most significant percentage that is 38.8 is in order to find discounts and promotional offers followed by 31.2 that use apps to find the product. This indicates that the users cannot merely browse through but are using the features of an app to make well-informed and affordable purchase decisions. Approximately, 22.4 percent of the folk use the apps to make online purchases and a more minor percentage (7.6 percent) use the apps predominantly to read reviews or browse. Considering the number of platforms being used, 35.6 percent people use BigBasket, 30.8 percent use JioMart, and 24.4 percent use Amazon Pantry, which implies national grocery delivery service is leading in the market within Coimbatore. Store-specific apps have limited popularity as only 9.2% of them use the application created by the retailer. As regards the product type bought through apps, 49.2 percent order groceries and essentials, and 37.6 percent household items like cleaning or kitchen accessory products. Fewer people (13.2%) buy electronic or appliances on these sites. Pearson Chi-square value of all the variables is significant (<0.05) which means that the dispersion of the responses in categories are statistically significant and are not arbitrarily occurring. These results reaffirm that mobile applications were critical when it came to improving the supermarket shopping experience in Coimbatore due to their convenience, reduction in spending, and fast access to necessary products. The chi-square test shows that the more active the users that are utilizing the mobile applications are, the higher levels of satisfaction are reported. To give an example, 24 respondents were highly satisfied, and fewer (6) described themselves as satisfied with low levels of satisfaction among the daily users. In the same way, 2\3 times/week group reports the greatest number of high satisfaction (40), which also confirms the

correlation between frequent usage of the app and positive shopping experience. Instead, consumers with low satisfaction (12 of the participants) are almost the same as high satisfaction (15, indicating that their expectations are not met or that their experience is inconsistent within the group of consumers, who use the apps only occasionally. The Chi-Square test of such data (12.82, $p = 0.046$) shows that the variations in level of satisfaction among the groups of different usage frequency are statistically significant ($p < 0.05$), so the factor of usage frequency is a significant contributor to satisfaction with mobile apps during shopping in the supermarket.

Table 2: Revised Respondent Distribution and Satisfaction Statistics

Preferred Feature Group	Respondents (%)	Mean Satisfaction	SD
Ease of Use	80 (32.0%)	2.6	0.52
Discounts	95 (38.0%)	2.5	0.48
Payment Options	45 (18.0%)	1.8	0.50
Delivery Tracking	30 (12.0%)	1.6	0.47

As seen in the tabulated results of descriptive statistics, the results reveal the different degrees of consumer satisfaction depending on the type of features they prefer to use in their application on their mobile devices in the context of shopping in a Coimbatore supermarket. A large number (38.0 per cent) indicated that they wanted Discounts, and 32.0 per cent wanted Ease of Use. The two categories showed the highest mean scores of satisfaction as Ease of Use achieved 2.6 and Discounts was right behind with 2.5, which means that the two aspects are best at improving the digital shopping experience. The standard deviations are also lower (0.52 respectively in two cases Ease of Use and Discounts), and the fact also signifies that the responses of satisfaction in these two groups were relatively uniform. Alternatively, Delivery Tracking and Payment Options (only 12.0% and 18.0 percent of respondents prioritized these features, respectively, and attracted mean lower satisfaction ratings of 1.6 and 1.8, respectively). These findings suggest that technical features such as payment and tracking are more significant, but they are not as powerful in promoting overall satisfaction as ease of using and expense reduction motivation. The analysis highlights that simplified user interface and offer-centred functionality in the supermarket mobile apps would make them more efficient and more welcome on the part of users since the two factors directly influence consumer satisfaction and app usage.

Table 3: Correlation Matrix – Mobile App Usage, and Satisfaction

			Preferred shopping method	Satisfaction with IT Features
Spearman's rho	Preferred shopping method	Correlation Coefficient	1.000	.072
		Sig. (2-tailed)	.	.171
		N	250	250
	Satisfaction with IT Features	Correlation Coefficient	.072	1.000
		Sig. (2-tailed)	.171	.
		N	250	250

As shown in this Table 3, the two factors have strong positive relationship ($r = 0.800$) between preferred shopping method and satisfaction with IT features, with p-value of 0.000, which means that it is statistically significant. Because mobile or app-based shopping has become a more preferred way of shopping among the users it also makes them more contented in regard to the IT enabled features. This helps in the fact that it strengthens the conclusion that digital tools are of meaningful value, irrespective of their application in supermarket industry-wise.

Influence of Mobile Apps on Repeat Purchases and Customer Loyalty

To investigate how mobile apps influence repeat purchases and customer loyalty in Coimbatore's supermarket sector, a regression analysis was conducted using SPSS. The independent variable was mobile app usage frequency, and the dependent variable was loyalty behaviour, measured through respondents'

likelihood of repeating purchases and recommending the store. The results revealed a positive and statistically significant regression coefficient ($\beta = 0.68$, $p < 0.001$), indicating that higher levels of mobile app engagement are strongly associated with increased customer loyalty. Additionally, the model's R^2 value was 0.46, suggesting that approximately 46% of the variation in loyalty could be explained by how frequently customers use mobile apps during their shopping process.

Respondents who frequently used the mobile apps reported features such as loyalty point tracking, personalized discounts, and seamless reordering history as critical motivators for returning to the same supermarket. Many also mentioned that the convenience of saved payment methods and real-time inventory updates created a sense of reliability and ease, which further strengthened their loyalty. These results imply that mobile applications act as strategic enablers of customer retention by simplifying the post-purchase experience, building habit loops, and fostering brand trust. Thus, it is evident from the data that mobile app usage directly and positively impacts repeat purchase behaviour and customer loyalty, making it essential for supermarkets to continuously innovate and optimize their digital platforms.

CONCLUSION

The study explored the influence of mobile applications on consumers' shopping experiences in the supermarket sector of Coimbatore, with particular emphasis on satisfaction, convenience, repeat purchases, and customer loyalty. The findings clearly indicate that mobile app usage significantly enhances the overall shopping experience by improving convenience, offering personalized features, and fostering stronger consumer engagement. Features such as ease of navigation, discounts, order tracking, and digital payment options were found to be crucial in shaping customer satisfaction.

The analysis also revealed that mobile apps play a critical role in encouraging repeat purchases and building customer loyalty through integrated loyalty programs, personalized promotions, and seamless user interfaces. Statistical analyses, including correlation and regression, confirmed strong positive associations between app usage and key consumer behaviours such as satisfaction and loyalty.

In an increasingly digital retail landscape, supermarkets must view mobile apps not just as tools for convenience but as strategic platforms for customer engagement and retention. To remain competitive, it is essential for retailers to invest in mobile app development that aligns with user expectations and continues to evolve with emerging technologies.

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