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Factors affecting consumer acceptance and use of mobile delivery applications in South Africa

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Background: During the 2020 global coronavirus (COVID-19) outbreak, mobile delivery applications flourished, facilitating consumer access to groceries. Research has shown, however, that usage remains low in developing countries such as South Africa.

Objectives: This research identifies factors that affect the acceptance and use of a mobile delivery application. It provides recommendations for application designers to improve application functionality and usability and for retailers to better understand customer needs.

Method: This research adopted an interpretivist stance, utilising the Unified Theory of Acceptance and Use 2 (UTAUT2) as a theoretical framework. Data were collected and analysed from 4159 Google Play Store customer reviews using thematic content analysis. Reviews were anonymised, coded and categorised according to the UTAUT2 model constructs.

Results: Performance expectancy and facilitating conditions were found to affect acceptance and use of the application. Effort expectancy, hedonic motivation and cost price had a moderate effect. Social influence, habit and price value did not impact the use of the mobile delivery application. Users will depend not only on recommendations from friends and family but also on service costs.

Conclusion: This research revealed that users are more likely to accept and use a mobile delivery application if they find it helpful and receive quick assistance when facing technical challenges.

Contribution: This research identifies factors that affect the acceptance and use of a mobile delivery application in a geographical area where usage remains low. Retailers may attract more customers and find more success in mobile delivery services by addressing customer concerns and challenges.

Keywords: mobile delivery applications; acceptance; use; online shopping; Unified Theory of Acceptance; Use 2 (UTAUT2); South African retailers.

Introduction

On 11 March 2020, the World Health Organization (WHO) declared the coronavirus (COVID-19) outbreak a pandemic, given its severe global impact (WHO 2020). According to Zhu, Chou and Tsai (2020), supply chains worldwide faced significant disruptions and difficulties adjusting to the new demands of a locked-down world, with businesses needing to expand into the online space or offer home deliveries. Collison (2020) reports that though online delivery service has been around for quite some time, this service has primarily been offered by chain restaurants, with individual restaurants following, and finally, grocery stores in the 21st century.

Because of the increase in COVID-19 cases, the lockdowns imposed in many nations created a surge in demand, and supply chains had to adapt to meet this demand for home delivery (Odunayo & Victor 2020). In the age of the pandemic, the need for mobile delivery is clearly increasing, with China's online mobile delivery service orders, for example, surging by 20% in January 2020 alone (Collison 2020).

Consumers globally differ in their online shopping behaviours (Makhitha, Scheers & Mogashoa 2019). Leading e-commerce platforms worldwide also vary by region and include sites that are now household names: Amazon (USA), Alibaba (China) and Flipkart (India) (Li, Mirosa & Bremer 2020). Developed countries such as the United Kingdom, China and the USA are the leaders in online shopping, while developing countries lag because of a lack of Internet services and other factors (Li et al. 2020). According to Okonkwo (2019), despite the increased penetration of mobile

devices in Africa, mobile application usage is still low. South African online shopping has a massive opportunity for growth, with online at only 1% of the total retail sector (Makhitha & Ngobeni 2021).

Muangmee et al. (2021:1297) describe a mobile delivery service application as 'an online-to-offline mobile service that provides convenient and efficient online ordering and offline delivery of goods and services'.

The rise in delivery applications has revolutionised how mobile suppliers and consumers interact (Muangmee et al. 2021; Nguyen 2019). According to Taherdoost (2018), understanding individual technology acceptance is helpful for future developments and growth. In recent years, China has experienced the most considerable growth in e-commerce, with sales worth $1.935 trillion in 2019 compared with the USA, the second-largest market, with a $586.92 trillion sales value (Li et al. 2020). Nguyen and Vu (2020) suggest that as the COVID-19 pandemic continues to affect the world over, the demand for non-contact or 'leave at the door' delivery will likely follow the example of China and expand considerably.

Despite a worldwide increase in application delivery services, many businesses, according to Christino et al. (2021), have not yet adopted this technology, particularly businesses in developing countries. In addition, there is still a dearth of research on user acceptance and mobile delivery applications, especially in the retail sector (Alalwan, Dwivedi & Rana 2017). While many studies have focused on developed countries, further research is necessary in developing countries such as South Africa to ascertain if the outcomes are the same (Okonkwo 2019).

Thus, this research investigates the challenges affecting the acceptance and use of a mobile delivery application in South Africa:

- One objective for the research is to identify factors that affect the acceptance and use of a mobile delivery application.
- Other objectives are to provide recommendations for application designers to improve application functionality and usability and for retailers to better understand customer needs.

Literature review

Today, mobile applications are an essential part of everyday life. High-speed Internet access, increased ownership of smartphones and advanced personalised and interactive applications (e.g. geo-tracking) have nurtured a fertile environment for the adoption of mobile applications (Belanche, Flavián & Pérez-Rueda 2020). Belanche et al. also believe that technology, especially mobile applications, plays a central role in mobile delivery.

Along with the expansion of the smartphone market, the mobile application market is exploding in growth; its importance as an independent market, not just as a supporting market, has escalated (Song, Jeon & Jeon 2017). Users can freely choose, download and install smartphone applications that offer the functions that they wish to use. The appearance of applications such as Facebook, Twitter and Instagram has made brand promotion and customer-centric service development possible (Song et al. 2017).

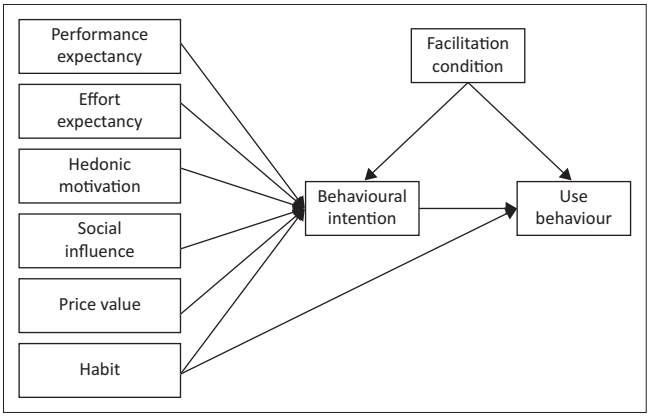
South Africa's online shopping

Boasting a population of over 57 million people, South African e-commerce accounts for only 1.2 billion, or 1.6%, compared with the USA with a figure of 14.8% of its population. Even Kenyan consumers shop online more than South Africans (Oksiutyc & Lubinga 2021). A survey by Visa found that 64% of South African consumers purchased groceries online for the first time because of the COVID-19 outbreak and concomitant movement restrictions in March 2020, and 53% purchased from a pharmacy. According to Goga, Paelo and Nyamwena (2019), reliability and delivery cost mechanisms, high prices and poor Internet services have hindered the growth of e-commerce in South Africa.

Furthermore, South Africans prefer store shopping, with the total retail spent online only at 1% – 2% in 2017 (Goga et al. 2019). Statistics show that South Africa lags behind other developed markets such as China, whose retail growth and development have relied heavily on the Internet (Li 2020). Shoppers now engage with online and offline touchpoints (Li 2020). In this case, according to Ngubelanga and Duffett (2021), customer interaction will not lead to future purchases if a customer is dissatisfied.

Theoretical foundation

Research using UTAUT has targeted individuals in organisations to determine their expectations of technology performance, effort expectancy and social influence in assessing the intention of technology use (Venkatesh et al. 2003). Venkatesh, Thong and Xu (2012) added several constructs – hedonic motivation, price value and habit – with age, gender, experience and willingness, as moderators affect technology usage to the UTAUT model for the Unified Theory of



Source: Venkatesh, V., Thong, J.Y.L. & Xu, X., 2012, 'Consumer acceptance and use of information technology extending the unified theory of acceptance and use of technology', *MIS Quarterly* 36(1), 157–178. https://doi.org/10.2307/41410412

FIGURE 1: Unified Theory of Technology Acceptance and Use (UTAUT2).

Acceptance and Use 2 (UTAUT2) model, as shown in Figure 1. This research used the UTAUT2 model with performance and effort expectancy, social influence, facilitating condition, hedonic motivation, price value and habit (Venkatesh et al. 2012). The selected model will research the mobile application as a service or product for acceptance and the factors influencing consumers to accept and use it. UTAUT2 which includes constructs found to significantly impact the adoption of information technology (Venkatesh et al., 2012). The selection of the UTAUT2 model for this research was explicitly for user context, as the variables presented in the model determine technology acceptance and use (Vinnik 2017). The model allows for discovery of specific motivators in accepting and using mobile delivery applications. Age and gender could not be determined from customer review data, as names can be unisex, so the researcher excluded these demographics.

Performance expectancy

Venkatesh et al. (2012) define *performance expectancy* as the degree to which technology benefits a user in performing certain activities, seeing it as the most significant factor influencing user intentions (Alalwan et al. 2017). Rahman, Alam and Taghizadeh (2020) identify perceived usefulness, extrinsic motivation, job fit and relative advantage as the original constructs of performance expectancy. In simpler terms, a user's perception of the effectiveness of technology, resulting in a positive or negative attitude towards the adoption of a technology, determines behavioural intention to use the technology (Taherdoost 2018). According to Chotigo and Kadono (2021), convenience shapes customer experience and satisfaction; if a mobile delivery application saves energy and is time-efficient, then customers will likely be satisfied with it.

Verma, Bhattacharyya and Kumar (2018), however, argue for only an indirect influence between user belief of usefulness and intention through attitude.

Effort expectancy

Effort expectancy is the 'degree of ease associated with using a technology' (Venkatesh et al. 2012:159). Perceived ease of use, ease of use and complexity form the basis of effort expectancy (Chao 2019). Van Dyk and Van Belle (2019) define *complexity* as the belief in the level of innovation complexity for use, which affects innovation and technology adoption. In other words, failure by users to see the ease of technology use will fail to adopt innovative technology (ur Rehman et al. 2019). Challenges emanating from technological use and its characteristics have compounded the complexity of its adoption, deployment and assistance in decision-making (Walker & Brown 2019). Consumers are more likely to accept and use a mobile application that keeps them informed more than other applications (Malik, Suresh & Sharma 2017).

Facilitation condition

The *facilitation condition* is a 'consumer's perception of the resources and support available to perform a specific behaviour' (Venkatesh et al. 2012:159). When consumers use mobile applications, they deal with three services for support – smartphone services, network helpdesk and application customer support – making it frustrating if the required services are not adequately provided. According to Dakduk et al., the lack of these services will likely affect the intention to use technology.

Hedonic motivation

Hedonic motivation refers to the fun of using technology (Venkatesh et al. 2012). Gharaibeh, Arshad and Gharaibh (2018) find that even though mobile banking users save time and effort, there is little that is enjoyable or interesting in using the application. According to Nordhoff et al. (2020), hedonic motivation is the strongest predictor of behavioural intention, and even more influential when using voluntary systems. Technologies that users find enjoyable are more likely to be accepted and used (Malik et al. 2017). A user's digital satisfaction when using a mobile shopping application provides the user with efficiency and hedonic shopping values.

Price value

If a consumer's perception of the benefits and advantages of an online service outweighs the cost, then the intention to buy and use the service is heightened (Park 2020). For example, Christino et al. (2021) explain that users are likely to accept and use restaurant delivery applications with reasonable prices and promotions. Prabowo and Nugroho (2019) support this finding, reporting that even though users of mobile delivery applications considered costs higher than brick-and-mortar purchases, they no longer feel the price and saving orientation. In Vinnik's (2017) research, the price value significantly influenced the acceptance and use of mobile applications. With free applications, users base their decision on rankings and reviews.

Social influence

Venkatesh et al. (2012) propose that *social influence* is how friends and family influence technology adoption by an individual. Dakduk, Santalla-Banderali and Siqueira (2020) and Rahman et al. (2020) agree that individuals with low incomes and less technological literacy depend on other's opinions and their social surroundings in their intention to adopt the technology.

According to Arora, Malik and Chawla (2020), social influence encompasses two elements: the source that creates awareness of the application and the authority that the respondents check with before downloading an application. Nordhoff et al. (2020) further suggest that individuals who believe that people important to them appreciate using technology are likely to use the same technology. However, according to Moura et al. (2017), social pressure or network contacts do not influence the elderly's use of technology, only the younger age group up to 31 years, as Venkatesh et al. (2012) targeted.

Habit

According to Malik et al. (2017), *habit*, the way individuals tend to perform behaviour automatically because of past learning, is one influencer of the continuous use of technology systems. Christino et al. (2021) recognise habit as the most significant influencer in the behavioural intention to accept and use mobile delivery applications. Users of a new system are more likely to compare the actual outcomes to expected outcomes, and if they are satisfied with the experience, then predictions for future use can be made (Alalwan 2020). Alalwan also insists that habitual behaviour formulated towards a new system will motivate customers to use such a system in the future. Similarly, according to Chotigo and Kadono (2021), customers using applications are more likely to use a new application.

Research methodology

This research adopted an interpretivist stance, utilising the UTAUT2 as a theoretical framework to assess online reviews. Online reviews have become an essential source of valuable information for customers and marketers (Robson et al. 2013). In agreement, Pasmawati et al. (2020) suggest that online customer reviews provide more information than conventional surveys which must contend with limitations in turnaround time and other constraints.

A case study is a unique way of observing patterns in a set of data (Yin 1984); uniqueness in a case study is the small geographical area examined in detail (Yin 1984). The author further noted that with a case study, a researcher can go beyond quantitative statistical results and use the actor's perspective to understand behavioural conditions. This research used a case study to identify the factors affecting the acceptance and use of a specific South African mobile delivery application, Checkers Sixty60. Checkers Sixty60 is only available to South African users, so users are limited to this geographical region. The application was launched in November 2019, 5 months prior to the COVID-19 pandemic. The research used customer reviews posted on the Google Play Store between the launch in November 2019 and 25 August 2021, as customer reviews provided textual data.

Text from 4159 customer reviews examined in this research was copied from Google Play Store and saved into a Word document. Reviewers' names were removed to anonymise the data before the Word document was converted to a PDF to upload to Atlas.ti software. Thematic analysis was employed to categorise the reviews according to the UTAUT2 constructs of performance expectancy, effort expectancy, facilitation condition, social influence, hedonic motivation, price value and habit, and their relationship with behavioural intention to accept and use mobile delivery applications.

Data analysis

Data analysis for the research consisted of thematic analysis of 4159 user reviews. Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data (Braun & Clarke 2006). Content analysis is a powerful data reduction technique for compressing many words of text into fewer content categories based on explicit coding rules (Stemler 2001). Krippendorff (1980) defines *content analysis* as a research technique for making valid and replicable inferences from texts to the contexts of their use. According to Bryman and Bell (2011:717), *content analysis* involves 'replicable and valid methods for making inferences from observed communications to their context'.

The research categorised user reviews using content analysis on the UTAUT2 model constructs to determine each construct's relevancy to mobile delivery application behavioural intention and use. Specifically, the UTAUT2 constructs of facilitation condition, performance expectancy, hedonic motivation, effort expectancy, price value, social influence and habit were applied to categorise customer reviews. All reviews related to one construct were grouped and compared, and variations were derived (Nowell et al. 2017), as shown in Figure 2. The constructs were cross-compared to ascertain connections between themes (Axcell 2017). This analysis aims to integrate the themes into a theory that provides an accurate and detailed interpretation of the research (Palmer & Bolderston 2006).

Results

Thematic analysis results demonstrated the fundamental determinants of intention to use by facilitation condition, performance expectancy, effort expectancy, hedonic motivation, price value, social influence and habit (Table 1). The findings strongly support the suitability of the UTAUT2 as a guide to the understanding of factors that affect consumer acceptance and use of mobile delivery applications for grocery ordering and delivery. The findings reflect user review analysis that answers the research questions according to UTAUT2 construct frequency (Table 1).

The facilitation condition is the perceived availability and suitability of infrastructure and organisational support of

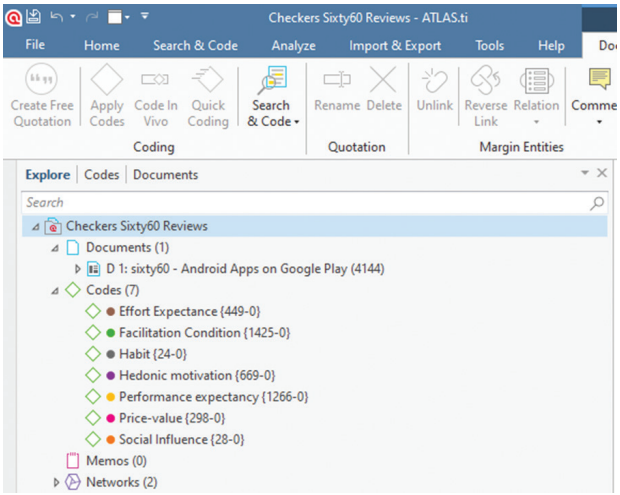


FIGURE 2: Review categories in Atlas. ti 9.

TABLE 1: Review categories.

Construct	Frequency	Percentage
Facilitation condition	1425	34
Performance expectancy	1266	30
Hedonic motivation	669	16
Effort expectancy	449	11
Price value	298	7
Social influence	28	1
Habit	24	1
Total	**4159**	**100**

the technology (Venkatesh et al. 2003). In this research, the facilitation condition category incorporated functionality issues and customer support mentioned by reviewers.

Thirty-four percent of reviewers in this research had technical challenges preventing them from placing orders; the application was non-functional, either slow, crashing or consistently closing. One reviewer commented, "The app keeps crashing. Just says it 'stopped working'". Some reviewers indicated frustration and intention to stop using the application after finding no solution to the technical problems encountered, reinforcing that application functionality negatively impacts user intention to use. One reviewer said, 'It keeps on using my current location and that is even wrong and it's really frustrating not being able to change it. I deleted the app immediately', again indicating that technical difficulties in application functionality impact the user intention to use the application.

Checkers have done an admirable job of responding to each and every review posted for the delivery application. Even though the responses did not necessarily fix user challenges and concerns, assurance was given that concerns raised will be addressed. These responses also demonstrate the desire of the retailer to hear from users and to rely on these reviews for improved service offerings. Reviewers also complained of failure to receive promised refunds even weeks after receiving their purchase orders, indicating a failure in customer service by Checkers. In some cases, reviewers received no response or communications from the customer service department weeks after sending emails. One reviewer added:

> 'My only concern with the app is the reversal of the pre-authorised amount. It's been over 2 weeks and I haven't received it. I checked my bank statement and even emailed the team with the said transaction in question.' (Google Play Store 2019)

According to Venkatesh et al. (2003), *performance expectancy* refers to how technology benefits a user in performing certain activities; performance expectancy aligns with time reduction achieved using technology, quality of outcome, and doing the job effectively and effortlessly. The category of performance expectancy – which captures the usefulness, benefits and suitability of the application for the service – greatly influenced the acceptance and use of the application. Reviewers expected the application to meet their shopping needs. With lockdown restrictions in the midst of the COVID-19 pandemic, users found the application helpful, as they did not have to trek to crowded malls to grocery shop. However, 30% of the reviewers identified several disappointing expectations: application usefulness, job fit, and relative advantage of using the application. Reviewers acknowledged frustration with the limit on order quantity, brand replacement on order, unavailability of stock and late deliveries. One reviewer stated, 'Most items are out of stock even though picked up from stores that have stock. After this horrible experience, I decided to use the bottle app for Pick n Pay'.

Findings confirm that performance expectancy influences intention to use mobile delivery applications. Statements that mention pleasure and enjoyment in using the application fall under the hedonic motivation category. Reviewers who indicated having enjoyed, loved or having fun using the application indicated their intention to continue using it. These findings suggest that hedonic motivation features prominently in the choice to use mobile delivery applications. With 16% of the reviewers indicating enjoyment and excitement in using the application, hedonic motivation has moderate prominence in technology usage and acceptance. Some reviewers indicted excitement in using the application and revealed their intention to recommend it to friends. One reviewer exclaimed, 'Love this app!! Use it all the time and am very happy. Definitely recommend. Keep it up'! Usage intention is high when a user is excited about using an application.

The effort expectancy category contains the statements on the usability of the application. Eleven percent of reviewers declared satisfaction with the application design, with over 15 000 grocery items on the application. Reviewers who found the user interface easy to navigate also found the buying process effortless and indicated an intention to continue using the application. One reviewer complimented, 'Fast and easy to use. I love that I can add alternatives. Well done, great app'.

Price value in this research refers to cost incurred by application users in addition to the purchase price; this category contains reviews on the absence of extra savings. Reviewers found the loss in savings because of the lack of a loyalty card on the application costly; 7% of the reviewers admitted that they paid more for grocery items purchased on the application than in-store, and one indicated an intention to stop using the application. One reviewer questioned, 'Why are prices different on the application than in the store?'

These frustrations and comments confirm that price value impacts the intention to use mobile applications. As one reviewer announced, 'The app itself is okay, except that it does not make provision for the extra card, but the delivery is poor. Won't use it again'. As price value reflected concerns from reviewers, there was little positive effect of price value on user intention to use the mobile application.

Only 1% of reviewers indicated that they read posted application reviews before installing or using the application, with a few deciding not to download the application after seeing reviews posted by users. One reviewer admitted, 'After reading all the reviews, I think I won't even bother trying the app'. Other reviewers, however, mentioned using the application after friends had recommended it. Such decisions indicate that social influence affects user's intention to use an application.

Reviews that compared the application to other grocery or mobile applications were categorised under the habit construct. Even though habit has a positive impact on the intention to use an application, it had little impact on the intention to use this application as so few users compared it to other grocery and mobile delivery applications. One reviewer said, 'Better than PnP, and way quicker than Woolworths; Well-done checkers'.

The main findings of the research show that technical challenges and lack or delayed response to queries (facilitation condition) had the greatest impact on the behavioural intention to use mobile delivery applications. Hedonic motivation and effort expectancy had a moderate impact, and social influence, price value and habit had little effect on the mobile application acceptance and use.

Discussion

In a similar study, Maziriri et al. (2020) identified facilitation conditions directly affecting user intention to use Uber, a mobile transport application. Failure by users to receive customer service when necessary impacts user intention to use the application. Facilitation conditions positively influence user acceptance and use. However, Dakduk et al. (2020) suggest that while facilitation conditions positively affect behavioural intention, the effect is small. Thirty-four percent of reviewers of the mobile shopping application had technical challenges preventing them from placing orders, and many were unable to reach customer service when required. Such difficulties – absence of customer assistance and the application's non-functional state as either slow, crashing or consistently closing – negatively influenced the intention to use the application. These findings support Moeti, Mokweni and Malebana's (2021) determination that consumers in Limpopo, South Africa, still rely on traditional shopping methods, as they find online shopping complex.

Performance expectancy was found to be the second strongest determinant of intention to use the mobile delivery application, with 30% of reviewers posting about the usefulness of the mobile application. The application saves time, enhances the convenience of buying groceries online, and will be useful if it meets user requirements. These findings support Oksiutyc and Lubinga (2021) who confirm that 83% of millennials in Johannesburg are ready to download an application that meets their daily needs, especially one recommended by friends. Reviewers noted the convenience of the application during the pandemic and appreciated that it saved them time. Users who expect to see all required product items on the application, receive relevant information, and appreciate the time saved are more likely to use the application.

Research by Song et al. (2017) suggest that a delivery application needs to be regularly updated with prices and products to provide accurate information; an informative application influences reuse intention and customer satisfaction. Maziriri et al. (2020) also found the convenience of using the Uber mobile application having a close link with use intention. According to Oksiutyc and Lubinga (2021), 89.6% of respondents were willing to download an application that met their expectations. In addition, as determined by Niemand and Chauke (2017) in their research, respondents consider perceived usefulness of transportation as important.

Pleasure, fun and enjoyment derived from using technology are hedonic motivation (Venkatesh et al. 2012). This construct has a moderate influence on the acceptance and use of the mobile delivery application. As determined by the research findings, reviewers who found joy, fun or pleasure in using the application confirmed their intention to continue using it. Reviewers mentioned loving the feature that allows them to select alternative product items if their chosen items are out of stock. These findings differ, though, from the results of Park (2020), who finds that hedonic motivation has the most decisive influence on customer satisfaction in online music services.

An easy-to-use and navigable technology is more likely to be adopted by users than a complex technology. Findings show that this construct (ease of use) moderates the acceptance and use of mobile delivery applications. Reviewers who found using the application easy, faced no challenges in using the application, or needed little effort to use the app (effort expectancy), are more likely to continue using the mobile delivery application. This finding is similar to that of Gharaibeh et al. (2018) who suggest that customers are more likely to use banking applications if they find the banking transaction easy to complete. Moeti et al. (2021) also believe that undue complexity of an online shopping process negatively affects consumer intention to use online shopping.

Price value is the cost associated with using the application. Reviewers indicated dissatisfaction with the lack of rewards and discount promotions, with 1% of reviewers stating their intent to purchase groceries in-store rather than online to benefit from the rewards and discounts. This result supports the findings of Maziriri et al. (2020) who claim that price value directly influences the choice of using Uber, a mobile transport service. Chotigo and Kadono (2021) support these findings, as they found that Thai consumers were less affected by price value during the COVID-19 pandemic, fearing contracting the virus as cases rose. Reduced prices by some restaurants, according to Venkatesh et al. (2012), heightened perceived and actual value for users. Some respondents, in the research of Oksiutyc and Lubinga (2021), were deterred by the cost and expenses associated with the application. With 1% of reviewers mentioning cost in their reviews, price value showed no impact on user intention to accept and use this mobile application. Prabowo and Nugroho (2019), in support of these findings of continued usage of a mobile application despite the

associated usage costs, report that even though users of mobile delivery applications consider costs higher than brick-and-mortar purchases, they no longer feel the price and saving orientation affects their usage.

This research found that though reviewers used the application based on recommendations from family and friends, other factors determined their continuing use of the application. Although 1% of users attest to using the application after recommendations from family and friends, most indicated an intention to stop use or delete the application after facing technical problems (facilitation condition). Such action demonstrates that social influence impacts facilitation conditions and performance expectancy. These findings, though, differ from the results of Chotigo and Kadono (2021) who find social influence to be a strong factor in determining user satisfaction during the pandemic, as reviews from social networks influence consumer interest in food delivery applications. According to Oksiutyc and Lubinga (2021), 83% of millennials in Johannesburg are eager to download an application that friends recommend.

Malik et al. (2017) describe *habit* as how individuals tend to perform behaviour automatically because of past learning. Chotigo and Kadono (2021) suggest that customers using other similar applications are more likely to use a new application. As only 1% of reviewers compared the application to other grocery applications, it is apparent that even though habit positively impacts technology adoption, it had little significance in user intention to use this particular mobile application. This is confirmed by Park (2020) who believes that habit has no impact on customer satisfaction and intention to use online mobile services as this occurs unconsciously. On the contrary, Christino et al. (2021) claim that habit is the most significant influencer in the behavioural intention to accept and use mobile delivery applications.

Conclusion

The objective of this study was to determine the factors that affect the acceptance and use of a mobile delivery application in South Africa. The research assessed 4159 online reviews posted by users country-wide. However, one suggestion is that additional research be conducted in specific areas to determine if the results will differ in various provinces or cities. The findings of this research will slot into the academic research field which currently lacks use of this methodology of online reviews of mobile delivery applications. Online shopping has surged in popularity in the last decade; COVID-19 lockdown restrictions have encouraged more and more retailers to adopt online shopping platforms in all economic sectors. Competition amongst retailers is expected to increase as user choice of a wide range of online retailers has grown. While price has been regarded as a key driver in mobile application usage, price is not the only influencer of acceptance and use of an application (Park, Lee & Nicolau 2020).

The success of a mobile application depends on user acceptance and continued use. Positive user experience with an application will positively influence intention to use and loyalty resulting in increased revenue and market share. This research recommends that developers improve application design, usability and functionality in line with the factors identified in this research as affecting acceptance and usage. Another recommendation is for retailers to improve customer service by more clearly understanding – and then meeting – customer needs.

This research had limitations. Because of lockdown restrictions to curb the spread of the COVID-19 pandemic, interviews could not be incorporated into this study. Further research employing interviews or questionnaires will aid in determining the effects of other UTAUT2 constructs excluded from this study, such as age, gender and educational level. Results for this study cannot be generalised as the research was qualitative.

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Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

F.P. conceptualised the research and found the data. I.S.M. defined the methodology, completed the analysis and wrote the original draft. F.P. validated the results and supervised the project.

Ethical considerations

This article followed all ethical standards for research without direct contact with human or animal subjects.

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Data availability

Data are publicly available at https://play.google.com/store/apps/details?id=za.co.shoprite.sixty60.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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