Factors influencing re-usage intention of online and mobile grocery shopping amongst young adults in South Africa

Neo Ligaraba
Department of Marketing, University of the Witwatersrand, Johannesburg, South Africa
Brighton Nyagadza
Department of Marketing, Marondera University of Agricultural Sciences and Technology, Marondera, Zimbabwe, and
Danie Dörfling and Qinisoliyakhulula Mhlengi Zulu
Department of Marketing, University of the Witwatersrand, Johannesburg, South Africa

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Abstract

Purpose – This study investigates the factors influencing re-usage intention of online and mobile grocery shopping among young adult consumers in South Africa.

Design/methodology/approach – Data were collected from selected young adult participants using a stratified probability sampling strategy. Smart PLS was used to analyse the data.

Findings – The findings of the study indicate that perceived usefulness (PU), peer review (PR) and attitude (ATT) positively influence continuance intention (CI).

Research limitations/implications – In line with the available literature, there are few prior post-adoption studies that delineate the influence of individual characteristics on digital commerce usage activities. There is high mobile penetration as a result of positive digital commerce and mobile application usage and adoption, creating the need to investigate and better understand the drivers behind, not just adoption and usage, but continued use of digital commerce platforms and applications. Since the sample size is relatively small, further future research studies can test the same model with bigger sample sizes to assess generalisability of the results in different locations.

Ethics approval and consent to participate: Necessary steps for ethical approval and seeking respondents' consent to participate have been adhered to before executing the study.

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Practical implications – This study adds to the current literature by concentrating on the extent to which systems and marketing elements influence young adult customers' intention to continue using online and mobile grocery shopping platforms in South Africa.

Originality/value – The study adds value from a theoretical standpoint, contributing to the antecedent factors of the technology acceptance model (TAM), theory of reasoned action (TRA) and stimulus-organism-response (S-O-R) model and giving marketing academics insights into what aspects drive re-use of online and mobile grocery shopping and on what should be the focus.

Keywords Digital commerce, e-commerce, Online mobile grocery shopping, Brand attitude, Continuance intention

Paper type Research paper

Introduction and contextualisation

Online grocery shopping has evolved into a vital aspect of the supermarket industry (Zheng, Men, Yang, & Gong, 2019). Food, drinks and other daily necessities, particularly fast-moving consumer goods, can all be purchased online (European Commission, 2015; Güsken, Janssen, & Hees, 2019). Johnson and Tiko (2019) describe how the retail food industry is undoubtedly one of the most significant components of most people's daily life. This is owing to the essence of the sector, which is to facilitate the availability of vital commodities to the public, such as general commerce and consumables, daily. Grocery merchants have embraced information and communications technology (ICTs) which includes *e*-commerce to facilitate the purchases and sale of their products and services in order to accommodate the increasing demand placed on them by consumers and to gain a competitive advantage (Johnson & Tiko, 2019; Kureshi & Thomas, 2019). Many enterprises in the retail industry have benefited from e-commerce, including better information sharing, faster time to market and more efficient supply chains, while customers have benefited from the convenience of purchasing at any time of day (Vakulenko, Shams, Hellström, & Hjort, 2019; Singh & Rosengren, 2020). Despite these incentives, many organisations encounter difficulties in implementing and leveraging e-commerce. Many firms are still unable to adopt and use *e*-commerce, given the lack of ICT infrastructure, poor Internet security, a high prevalence of illiteracy and a scarcity of favourable legal frameworks (Park-Kang, 2014; Yingi, Hlungwani, & Nyagadza, 2022). According to Ndayizigamiye and MCarthur (2014), some of the factors that drive e-commerce adoption in Durban, South Africa, are compatibility with technology infrastructure and value.

The online exchange of products and services is referred to as e-commerce. E-commerce is facilitated by ICT, such as the Internet (Zafar, IshaqShoukat, & Rizwan, 2014). Within that paradigm, consumers obtain information in order to make purchases over the Internet (Pavlou & Fygenson, 2006). *E*-commerce benefits both customers and businesses by providing simple access to goods and services, as well as low costs in commercial activities. E-commerce automation enables customers to make purchases online, businesses to process online orders and financial transactions to be completed quickly (Kartiwi, Hussin, Suhaimi, Mohamed, & Amin, 2018). Despite these advantages, South African firms have indeed been slow to implement the concept (Mlitwa & Raqa, 2012). E-commerce has enabled retailers to expand their physical footprint while also allowing customers to buy their products online (Leong, Jaafar, & Ainin, 2018). Furthermore, it has aided the reduction of operational costs and the enhancement of client retention (Kartiwi *et al.*, 2018). Similarly, e-commerce–automated capabilities have aided businesses in increasing sales by providing customers with access to goods and/or services via the retailer's website (Aryani, Andari, & Suhindarto, 2021).

In South Africa, online-only shops, often known as pure play retailers, and omni-channel retailers dominate the food buying landscape (Goja, Paelo, & Nyamwena, 2019). The online business model is based primarily on online sales, and most shops operate out of warehouses

with no storefronts where customers may examine merchandise. In South Africa, a flood of new e-grocery companies with an only an online presence and no physical stores appears to have altered the landscape of e-grocery retailing (Mkansi, de Leeuw, & Amosun, 2019; Machi, Nemavhidi, Chuchu, Nyagadza, & Venter de Villiers, 2022). Spazapp, GrocerEase, Y-shop, Buy Grocery Online, Zulzi, Vuleka, SmartSentials, OneCart, Sisonke Africa, StockUp, Washesha, WumDrop and Zanel foods are among the 13 online-only or micro-e-grocery players in the country, offering e-groceries to urban, township and rural markets (Mkansi *et al.*, 2019). The omni-channel strategy involves brick-and-mortar businesses using their Internet stores as a channel for customers to make purchases outside of their physical locations. This includes taking online purchases, delivering them, and offering hybrid choices like "click and collect." Makro, Woolworths, Checkers and Pick "*n*" Pay are some of the grocery merchants in South Africa that have online platforms (Goja *et al.*, 2019). The availability of different payment choices is a critical element that has a considerable impact on how successful e-grocery stores are. Credit and debit cards, such as Visa and MasterCard, manual electronic fund transfers (EFT), instant EFT such as *i*Pay and PayFast, proprietary payment systems such as PayPal, loyalty points, such as *e*Bucks and Discovery Miles and counter payments such as *s*Code and Pay@ are just a few of the payment options available in South Africa (Goja *et al.*, 2019). It is important to remember for e-grocery businesses operating in South Africa that 70-75% of payments are made by credit card, 30-35% via rapid EFT and the remaining payment systems account for less than 1% of total payments (Goja *et al.*, 2019). Mobile payment options, which are typically app-based, include a variety of methods of which e-grocery businesses should be aware and have available. QR codes are one type of mobile payment that apps like SnapScan and Zapper use.

Young adult consumers are identified as the most important target market for *e*-grocery purchasing in this survey. This target market can be divided into two groups: "new technologists," or Gen Z consumers, who are typically young (Pencarelli, Ali Taha, Skerhakova, Valentiny, & Fedorko, 2020; Ngi, Ho, Lim, Chong, & Latiff, 2019; Okela, 2019) and embrace technology (Bento, Martinez, & Martinez, 2018), and "time-starved," or Gen Y consumers, who are price averse and would be willing to pay a premium for a service or product that saves them time (Muposhi & Chuchu, 2022). The South African young consumers frequently buy online good such as shoes, clothes, computer accessories, jewellery, watches and sports equipment among others (Duh & Struwig, 2015). This type of classified group tends to share similar life experiences that make them respond to digital marketing stimuli during online shopping in a similar manner (Eastman & Liu, 2012; Muposhi & Chuchu, 2022). According to Duh and Struwig (2015) the young adult consumers contribute to 50% of retail online sales in South Africa. The young adult consumers are deemed to be possessing higher levels of green digital technology which prompts them to buy good via online shopping platforms, as a result of being born and bred in an environment heightened with environmental consciousness (Lu, Bock, & Joseph, 2013). This explains why the young adult consumers tend to positively embrace online shopping for goods and services in South Africa and most parts of the globe (Bernades *et al.*, 2018; Rolling & Sadachar, 2018).

Research problem

Consumers all over the world are already ordering groceries online for home delivery and are willing to do so in the future (Nielsen, 2014; Maziriri, Nyagadza, Mapuranga, & Maramura, 2022c). Increase in mobile use and broadband penetration, particularly in developing countries, have also aided in the growth of online food purchases (Nielsen, 2014; Min, So, & Jeong, 2019; Mpinganjira, 2016; Nyagadza *et al.*, 2022b). The regions of Asia-Pacific, Africa/Middle East and Latin America have the most willingness to embrace digital retailing options in the future

(Nielsen, 2014). The mobile app market has grown exponentially as a result of the expansion of *m*-commerce, with the Google Play app store having 2.57 million apps to pick from in 2019 and the Apple App Store having 1.84 million apps to choose from (Kim, Baek, Kim, & Yoo, 2016; Statista, 2020). The practical knowledge gap discovered is that the current novel study drives a future research direction in the study area. *M*-commerce growth and development necessitates investigation and a better understanding of factors that influence online grocery shopping website continuance intentions (CIs) among young adult users in South Africa, as well as determination of the extent of these factors' positive persuasive impact on brand attitude (ATT) (Lee, 2018; Luqman, Razak, Ismaili, & Alvi, 2016; McKinsey, 2018, 2019) and, as a result, re-usage intention, as it is a continued use that determines the success of a mobile commerce platform or application (Koloseni & Mandari, 2017). The nature and scope of online grocery shopping by young adult consumers was addressed and reasons for its existence were explored in this study. *M*-commerce is therefore rapidly increasing the earning capacity of enterprises all over the world, resulting in the emergence of several mobile applications (Chi & Sun, 2018; Kim *et al.*, 2016). In connection to this, the evidence gap in the current novel study shows that there are some provocative exceptions which arose from it as the conclusions seemed to contradict the widely available conclusions related to online grocery shopping website CIs among young adult users in South Africa. Evidence gap in the current novel study shows that there are some provocative exceptions which arose from it as the conclusions seemed to contradict with the widely available conclusions related to online shopping by young adult consumers. Further to this, knowledge gap that was unearthed and closed by the current study include that the available and analysed theories and literature are all different from the current discoveries of the current study and expectations from the wider exhausted research topics. Practical knowledge gap discovered is that the current novel study drives a new future research direction in the study area. The nature and scope of online shopping by young adult consumers was addressed and reasons for its existence were explored. Methodology gap addressed by this study is that prior research works have applied different methodological applications which are quite distinctive from the currently applied methodology. This paves room for a new strand of thinking, which diverges from the conventional approaches. Empirical gaps identified in the current novel study depicted that there is no research study that has directly made an attempt to make an assessment on online shopping by young adult consumers within an African context specifically in South Africa. Theoretical gaps that were explored showed that the theoretical framework (which included analysis and evaluation of the technology acceptance model (TAM), theory of reasoned action (TRA), stimulus-organism-response (S-O-R) model applied in the current study was fit and proved to be more superior in terms of its relevancy, practicality and reality as compared to other past research enquiries that have used different theories from information systems or information technology. Population gap unearthed in the current study depicts that the topic studied is still emerging and under researched, with certain population based on region, gender, race, ethnicity, age and etic being central in this issue.

The study was guided by the following question: to what extent do systems and marketing elements influence young adult customers' intention to continue using online/mobile grocery shopping platforms in South Africa? The primary goal of this research is to investigate the impact of system and marketing elements on the intention to continue shopping for groceries online and on mobile among South African young adults, as well as gauging the impact of ATT on re-usage intention.

Theory

Technology acceptance model

The TAM is considered important in measuring the efficiency of online grocery shopping as an evolving technology in this study; it is also claimed to be the most influential and widely used to

predict the acceptance and use of various technologies due to its theoretical foundation and empirical support (Chien, Kurnia, & von Westarp, 2003; Pearson, 1894; Pelet & Papadopoulou, 2015). Davis proposed the first TAM for information systems in 1986, which looked at the influence of system attributes on computer information system adoption. However, throughout time, the paradigm has expanded and been adapted to a variety of fields of knowledge, including wireless devices and the Internet, smartphone usage, Internet banking, online shopping and healthcare (Bauerová & Klepek, 2017; Nyagadza *et al.*, 2022a). The significance of online grocery shopping in terms of the technological acceptance model is owing to the belief that it has been steadily increasing since 2003, with year-over-year sales of online retail food shopping increasing by 2% in June 2017 (Bauerová & Klepek, 2017; Lama, 2020). Another factor is that online grocery shopping is becoming more popular in both developed and emerging economies.

Theory of reasoned action

The theory of reasoned action known as ToRA or TRA is a hypothesis that attempts to explain how behaviour and ATT interact in human action. It is primarily used to predict how people will behave, based on previous ATTs and intentions. A person's willingness to engage in a particular behaviour is dependent on the expected outcomes of that behaviour (Ajzen & Albarrací n, 2007; Kushwaha & Agrawal, 2016; Lagorio & Pinto, 2020). According to TRA, the desire to engage in a particular behaviour is the most important factor in determining whether or not someone does so (Ajzen & Albarrací n, 2007). According to the concept, the intention to participate in a specific behaviour comes first. This is known as behavioural intention, and it originates from a perception that engaging in the behaviour will achieve a particular result. Because these intentions are influenced by ATTs towards behaviours and subjective norms, the concept emphasises behavioural intention (Fishbein & Ajzen, 1975). The goal of behaviour is an important factor to consider before deciding on a certain conduct. As a result, this model is essential for the study.

Stimulus-organism-response model

The SOR model, proposed by Mehrabian and Russell (1974), argues that stimuli (S) in various forms may induce fluctuations in an individual's personality or organismic (O) state, which could also lead to a behavioural response (R). This paradigm has been widely utilised in consumer behaviour research, and therefore it is applicable for this study. A variety of factors, including website or application features, product range, time pressure and the availability of exciting promotional and discount offers, are important stimuli in a conducive shopping environment that can impact the psychological processes that lead to purchases on online grocery shopping websites and mobile apps (Sreeram, Kesharwani, & Desai, 2017; ICASA, 2019). Situational factors pertaining to online grocery shopping which drive or facilitate adoption are handled as environmental stimuli. These stimuli include the aesthetic of websites and applications, physical exertion, amusement and economic values. Using and reusing intention is determined in reaction to these inputs and organismic changes, whereas ATT is described as the "organism's cognitive and affective states" (Sreeram *et al.*, 2017; Khajehzadeh, Oppewal, & Tojib, 2015). As a result, in the case of online grocery shopping, the product page that displays the product serves as the stimulus (S) that affects the cognitive and emotional condition (O), which impacts the shopping outcome (R), namely, the intention to buy and revisit the webpage in the future (Kolesova & Singh, 2019; Yan *et al.*, 2016).

Literature review

This segment is a systematic literature review that looks at and discusses the consumer base and theories surrounding the online retail grocery sector in the context of this research.

By investigating system characteristics that contribute to the TAM as well as marketing aspects that influence ATT and so contribute to the TRA, the study makes a substantial contribution to the academic literature. The S-O-Rmodel is used to examine the importance of the process behind a consumer's reception of relevant marketing activities. This study also contributes to marketing practice by supporting *e*-commerce and *m*-commerce practitioners in identifying the elements that influence consumer ATTs and, as a result, their on-going usage of online and mobile grocery shopping retailers among South African young adult consumers.

Young consumers

Young adults are identified as the most important target market for *e*-grocery purchasing in this survey (Given, 2008; Glantz & Slinker, 1990). This target market can be divided into two groups: "new technologists" or Gen Z consumers, who are typically young and embrace technology, and "time-starved" or Gen Y consumers, who are price averse and would be willing to pay a premium for a service or product that saves them time (Muposhi & Chuchu, 2022; Erasmus, Venter De Villiers, & Phiri, 2019). This research also recognises that each category needs its own marketing goal (Rishi & Pradeep, 2018). Young people are considered utilitarian customers since they have unmet functional requirements that can be met by a service's functional advantages (Jara, Vyt, Mevel, Morvan, & Morvan, 2018; Dogtiev, 2015). Functional benefits are the more intrinsic advantages of service consumption, which correlates to the intangible qualities, according to Keller (1993). These benefits are linked to basic functional requirements, and if they are not provided, they may erode customers' value in the event of discontent (Keller, 1993). As a result, satisfying these functional needs is critical to the success of online retail buying since it encourages young consumers to shop online (Jara *et al.*, 2018; Forselund, 2007). Even if a website or mobile application (app) is thought to be beneficial and simple to use, its value will be missed if it does not match the functional needs of the youthful customer (Jara *et al.*, 2018).

Youth in Africa

The growing purchasing power of young consumers in Africa, notably in South Africa, has piqued marketers' interest in the young consumer market segment for online grocery shopping (Jara *et al.*, 2018). Pricing of items, convenience of service in terms of proximity to the consumer's preferred location, scale and quality of products on offer and consumer service quality are all important criteria for young African consumers' repurchase/reuse intentions. As a result, these are regarded as critical functional elements in their decision to buy groceries online (Muposhi & Chuchu, 2022; Erasmus, Venter De Villiers, & Phiri, 2019). In order to provide satisfying service and market to young customers, a thorough understanding of their profile is required, which is discussed in the breakdown of young consumers (Generation Y and Z).

Generation Y (Gen Y)

As previously said, Gen Y, also known as millennials, are those who are born between 1980 and 1994, and because they buy and spend the most, they are the most important, developing target demographic (Punakivi & Saranen, 2001; Rodriguez & Trainor, 2016). They are a generation defined by digital platforms, such as social media and mobile applications, with social networking as their primary communication method, according to Jaska and Werenowska (2016). High mobility, access to education, and regular contact with new technology are all variables that influence their behaviour.

Characteristics of Gen Y

Individuals in Generation Y have grown up in a consumer-driven modern world and have more money at their disposal than any other generation in history, making them perhaps the greatest group of consumers in any economy (Mafini, Dhurup, & Mandhlazi, 2014). The Millennium Generation, also known as the Echo Boomers, Why Generation, Net Generation, Gen Wired, We Generation, DotNet, Ne(x)t Generation, Nexters, First Globals, iPod Generation and *i*YGeneration, is a group of people born between 1980 and 1994 (Mafini *et al.*, 2014; Trade Intelligence, 2020; Wire, 2020). Although they fall into the young consumer sector, consumers between the ages of 26 and 40 are considered mature consumers, and as such are the primary focus due to their presumed established educational level and accompanying solid income levels.

Why Gen Y should be studied?

The online grocery buying approach is popular among Gen Y customers. Furthermore, these customers' expectations are oriented towards relational and experience elements, resulting in a long-term value based on marketing communication campaigns and proper value proposition selling (Jara *et al.*, 2018). Overall, Gen Y customers are often classified as a tech-savvy generation, and despite their willingness to spend freely, they are difficult to reach through advertising (Sullivan and Heitmeyer, 2008). These shoppers spent an average of $30 per trip to the mall and accounted for $300 billion to $400 billion in household purchasing power parity 20 years ago (Forbes, 2016). Older Gen Y consumers have even more purchasing power, as US adolescents spent $94 billion of their hard-earned money in 1999, and grocery expenditures accounted for $20 billion of the total (Forbes, 2016; Statistics South Africa, 2019). According to Forbes (2016), Gen Y has produced significant purchasing opportunities, with millennials spending $1.3 trillion annually in the United States. When the consumption of young Europeans is added to these figures, the total comes to $2.45 trillion, which explains why the world's biggest brands are vying for this market share (Werenowska, 2020). South Africa continues to see a surge in young consumer buying power; Gen Y individuals make up 64% of the new South African middle class (Duh & Struwig, 2015). When it comes to the impact of age on purchasing habits, younger Generation Y customers are more likely to be perplexed by the abundance of options than those who are older (Mafini *et al.*, 2014).

Generation Z (Gen Z)

Generational researcher, Tapscott, conducted research in which he defined Gen Z as "Generation Next" and described it as the most unique generation because no previous generation had been more comfortable, knowledgeable and educated with technology and innovation than this one (Rue, 2018; Shukla & Sharma, 2018). People born between 1995 and 2002 (ages 18–24) are included in the Reeves and Oh (2007) and Kitchen and Proctor (2015) classifications, which is the primary categorisation used in this study.

Characteristics of Generation Z

This generational cohort are seen as new conservatives who embrace traditional views, value family, seem to be self-controlling as well as responsible and also have assimilated high-technology and multiple sources of information, with messages bombarding them from all sides, with reference to the attributes of this cohort (their lifestyle and ATT) (William & Page, 2011; Kabonga, Zvokuomba, & Nyagadza, 2021). Gen Z is widely regarded as the history's most well-planned, cosseted, and materially fortunate generation (McCrindle & Wolfinger, 2010). Today's youth are part of a generation that grew up with the Internet and is familiar with its visual environment. It means they deal with short, current and real-time information

with images. This generation has been moulded by the Internet and technology to multitask, requiring them to shift swiftly from one task to the next (McCrindle & Wolfinger, 2010; Nyagadza, Pashapa, Chare, Mazuruse, & Hove, 2022c). In South Africa, Gen Z is defined by characteristics such as being very confident, enthusiastic about the future, having a desire for success and expressing success through brands and technical services such as online grocery shopping (Duh and Struwig, 2015).

Why Generation Z should be studied

Gen Z customers are expected to be the generation with the most economic power. The study of Gen Z has thus been supported by data from a report by Sparks and Honey (2018), which claimed that by 2021, Gen Z would account for 40% of the population and have $44 billion in purchasing power. They account for 18% of young customers in South Africa and have R7 billion in spending power (Duh & Struwig, 2015; Stern, 2020).

As with any generation, the environment and surrounding elements formed and influenced Gen Z's behavioural characteristics development (Salleh, Bahari, & Zakaria, 2017; Annie, 2019). When it comes to Gen Z, the most important thing to consider is their use of technology, and the influence of this, whether harmful or beneficial, should not be neglected (Turner, 2015; Nyagadza, Kadembo, & Makasi, 2020). Members of Generation Z grew up in a highly sophisticated medial technology environment, resulting in a nation that is more Internet knowledgeable than any preceding generation (Salleh *et al.*, 2017). Prensky (2001, p. 1) claims that Gen Z users are digital natives because they have never known life without the Internet. "*Technology is like breathing*" for Gen Z, thus they cannot envision life without it (Oblinger & Oblinger, 2005). Generation Z will be the most empowered generation since it is the most digitally savvy (McCrindle & Wolfinger, 2010). Generation Z is the first to be directly exposed to digital technologies, social networking sites and an abundance of information on the Internet (Turner, 2015; Prensky, 2001). As a result, Gen Z is the first generation to have grown up in an era of advanced information technology, prompting them to scrutinise users of social networking sites who are continuously exchanging information and conversing online (Kitchen & Proctor, 2015).

Online retail grocery shopping

Online grocery retailing has become an integral part of the grocery business (Zheng *et al.*, 2019; Singh & Rosengren, 2020; Güsken *et al.*, 2019; Kureshi & Thomas, 2019). Food, drinks and other necessities, particularly fast-moving consumer goods, can all be purchased online (European Commission, 2015). As previously stated, one of the most significant components of most people's daily lives is the retail food sector. Johnson and Tiko (2019) research study shows that this is simply the nature of the sector, which is to facilitate the regular availability of essential commodities to the regular populace, including general commerce and consumables. They go on to state that in an effort to match growing demands for grocery stores and to achieve a competitive edge (Singh & Rosengren, 2020; Güsken *et al.*, 2019; Chikazhe, Jecha, Nyagadza, Bhebhe, & Manyeruke, 2022b), merchants have shifted to ICTs including *e*-commerce to achieve a more convenient purchase and sale of goods and services (Johnson & Tiko, 2019; Kureshi & Thomas, 2019). Many companies in the retail sector have benefited from *e*-commerce in terms of data sharing, responsiveness to customers and supply chain efficiency, while customers have benefited from the convenience of shopping online at any moment of the day (Vakulenko *et al.*, 2019).

M-commerce

M-commerce, or mobile commerce, is a type of electronic commerce that combines the Internet with wireless communication technology (Vakulenko *et al.*, 2019; GSMA, 2020).

M-commerce can thus actively support online grocery shopping services (from placing orders to delivering products, as well as making the corresponding decisions) in the context of this study, thereby improving consumers' online grocery shopping experiences (Vakulenko *et al.*, 2019; Carter & Yeo, 2016). The idea of mobile *m*-commerce has been appealing as an innovative and more efficient type of commerce since the fast proliferation of smartphones and self-service technologies (Chikazhe, Bhebhe, Nyagadza, Munyanyi, & Singizi, 2022a; Akbar & Tracogna, 2018). Time and spatial transformation are two key properties of mobile commerce and mobile grocery buying that set them apart from other *e*-commerce activities. Prior research studies (for example Vakulenko *et al.*, 2019; Tiwari & Buse, 2007) shows that this is highly beneficial because both of these resources are limited and frequently in short supply. Portability, reachability, accessibility (ACC), localisation and identity are some of the features that distinguish *m*-commerce. As a result of these qualities, many mobile application services for *m*-commerce have been developed and launched around the world, including in South Africa.

Hypothesis and conceptual framework development

Perceived ease of use (PEOU) and attitude (ATT)

The TAM has been empirically proven in information systems literature (Davids, 1989), and this study claims that it can be used as an antecedent in an online grocery shopping environment because there is a positive association between PEOU and ATT. Several studies (such as Al-Gahtani, 2016; Chuchu & Ndoro, 2019; Zhou *et al.*, 2019; Maziriri, Gapa, & Chuchu, 2020) have used various usage measure scales and obtained results that are compatible with TAM; that is, TAM's two beliefs (PEOU and perceived usefulness (PU)) have a strong relationship with ATT (Davids, 1989), justifying the variable's inclusion in this study. As these multiple investigations have demonstrated empirically, this research asks:

H1. There is a positive relationship between PEOU and ATT on online and mobile grocery shopping options amongst young adults.

Perceived usefulness (PU) and attitude (ATT)

The study posits that perceived utility of online retail food shopping is linked to the perceived advantage the users receive from the service, such as optimising time savings, reducing transaction costs and making grocery shopping more convenient in general, according to this study (Chin & Goh, 2017). Based on research by Chin and Goh (2017) online grocery shopping is also beneficial in that it has improved the effectiveness and efficiency of the entire online purchasing process by allowing customers to compare prices from various retailers, search product information, place orders, make payments, track shipments and evaluate customer service. As a result, several empirical investigations (Choi, 2013) have confirmed the importance of PU beliefs in determining ATTs and intentions (Chin & Goh, 2017; Chiu, Lin, & Tang, 2005). The overall evaluation that indicates or predicts a user's chance of adopting and, more importantly, the expected continuing usage of a given technology, in this case, online grocery shopping, is the ATT towards using that technology (Lin, Shih, & Sher, 2007). Therefore, the following hypothesis is proposed in this study.

H2. There is a positive relationship between PU and ATT on online and mobile grocery shopping options amongst young adults.

Social influence (SI) and attitude (ATT)

There are two types of SI: normative SI or subjective norms, and informational SI (Lee and Wong, 2016; Lee and Ma, 2012). Subjective norms refer to the perceived social pressure on

individuals to perform or not perform a type of behaviour, regardless of their individual beliefs and ATTs towards the behaviour. For example, some people may believe that not adopting a specific technology, such as online grocery shopping, will make them appear "old fashioned" to others (Boon, Eckardt, Lepak, & Boselie, 2018; Nyagadza *et al.*, 2022b). People are under pressure to use technology, whether they want it or not. Information social group influence, on the other hand, is a learning process in which people watch their social groups' successful experiences with an innovation before determining whether or not to adopt it (Lee and Wong, 2016). Consumers, in particular, are hesitant to accept a new technology unless they hear about their social peers' positive experiences with it (Boon *et al.*, 2018). Furthermore, the study by Lee and Wong (2016) shows that information from external sources such as social media or online discussion forums can boost consumers' confidence in their beliefs or ATTs towards a particular object, with the more confidence a person has in his or her belief, the more likely that belief will influence ATT formation. As a result, the following hypothesis is proposed in this study.

H3. There is a positive relationship between SI and ATT on online and mobile grocery shopping amongst young adults.

Accessibility (ACC) and attitude (ATT)

It has been shown that easy access to brick-and-mortar stores reduces the frequency of online purchases; perhaps, then, online shopping loses some of its appeal if physically visiting brick-and-mortar stores does not require much effort and products can be experienced directly with one's senses relatively easily (Farag, Schwanen, Dijst, & Faber, 2007; Chikazhe *et al.*, 2022b). In reference to prior research by Boon *et al.* (2018) online grocery shopping's relative advantage, compatibility, trial-ability and observe-ability are thought to be positively related to attitudinal beliefs as well as its positive rate of adoption and subsequent continued usage (Farag *et al.*, 2007), whereas complexity is thought to be negatively related to its rate of adoption and subsequent continued usage (Chuchu & Ndoro, 2019). As a result, the following hypothesis is proposed in this study.

H4. There is a positive relationship between ACC and ATT on online-mobile grocery shopping amongst young adults.

Convenience (C) and attitude (ATT)

In the prior research study by Jiang, Yang and Jun (2013), it is shown that the most compelling reason for customers to shop on the Internet is convenience. In the context of business-to-consumer *e*-commerce, the aforementioned research empirically evaluated the construct of online buying convenience. Concentration in prior research was on the processes by which online shoppers should carry out the actions required to purchase products or services online (Chikazhe *et al.*, 2022b), and establishment of a rigorous assessment instrument for online shopping convenience that links convenience to ATT (Jiang *et al.*, 2013). As a result of the above empirical evidence, we propose the following hypothesis:

H5. Perceived online shopping convenience has a positive effect on ATT on online and mobile grocery shopping amongst young adults.

Information quality (IQ) and attitude (ATT)

Consumers view online information sources differently, according to empirical results (Singh & Rosengren, 2020). Respondents assess sole criteria of IQ, such as correctness and relevancy, when reading product descriptions on an apparel retailer's website. These variables were discovered to be positively associated with ATTs towards using retailer

sources, which influences purchase intention (Güsken *et al.*, 2019). As a result, because earlier research has proven a link, this study claims that:

H6. There is a positive relationship between IQ and ATT on online and mobile grocery shopping amongst young adults.

Peer review (PR) and attitude (ATT)

Consumers filter product selections to lessen the strain of the purchasing activity by most likely adopting several heuristics to facilitate product evaluation. Consumers may simply rely on summary statistics of consumer reviews such as the average, highest or lowest product rating (Singh & Rosengren, 2020; Güsken *et al.*, 2019), or even the total number of ratings to influence ATT and thus determine whether or not a purchase will follow, or other diagnostic cues such as a strong negative review to include or exclude products in or from consumer consideration without systematically analysing the data (Nyagadza *et al.*, 2022a). In addition to this Davis (1989) unearthed that consumers are more likely to systematically digest PRs and hence impact ATT and re-usage intention when they already have buying intentions, according to a prior study. This is particularly appropriate for online grocery shopping because the purchasing purpose for that category of products is functional and so, to a degree, assured (Nyagadza *et al.*, 2022a). As a result, the following hypothesis is proposed in this study:

H7. There is a positive relationship between PR and ATT on online and mobile grocery shopping amongst young adults.

Attitude (ATT) and continuance intention (CI)

The degree of a person's positive or negative feelings about completing target behaviour is how ATT is described (Davis, 1989, p. 984). Users' ATT towards technology use, according to TAM, determine their behaviour (Nyagadza, 2021). According to Duh and Struwig (2015) the young adult consumers contribute to almost half of retail online sales percentage in South Africa, and this depicts continued ATT towards purchasing products online. Much research has found a link between ATT and the intention to continue using technology (Güsken *et al.*, 2019). As a result, ATT is predicted to be a key variable in predicting individuals' intentions to use online grocery shopping. As a result, we provide the following hypothesis (see Figure 1):

H8. ATT has a positive effect on users' CI to use online grocery shopping platforms on online and mobile grocery shopping amongst young adults.

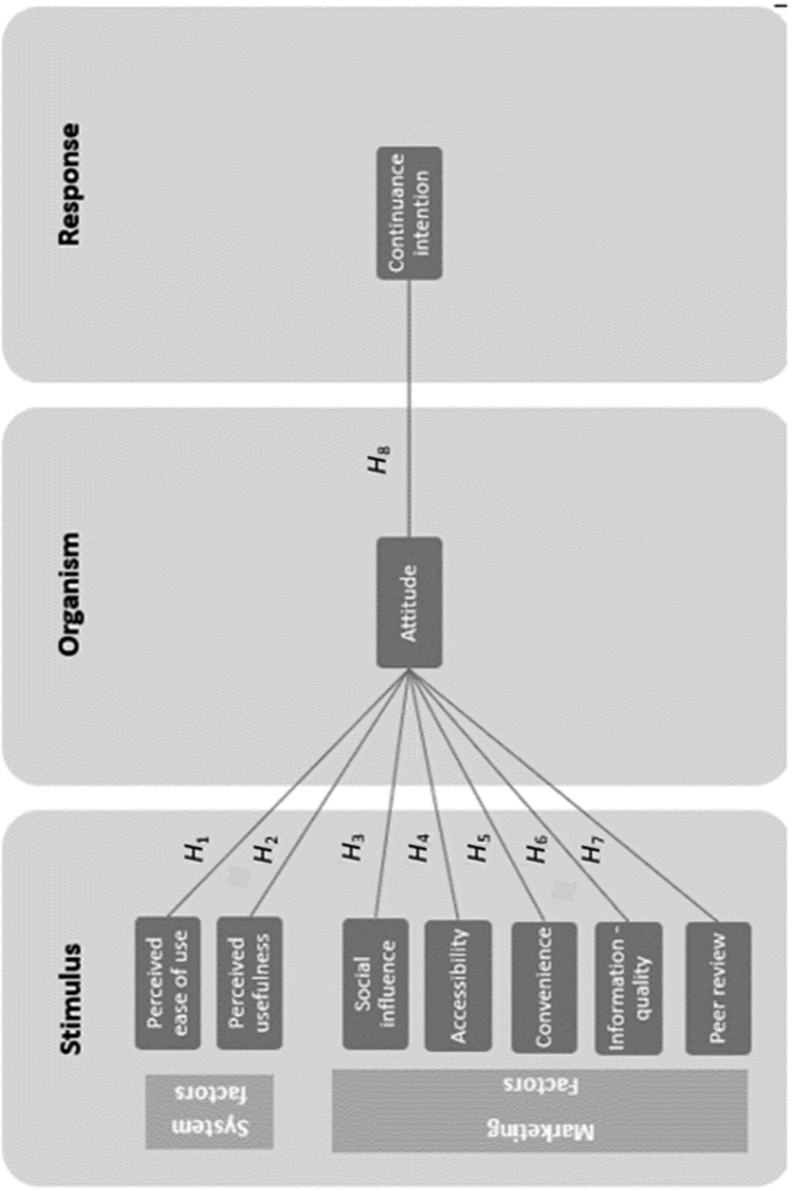
Methodology

Sampling design

The sample design for this study refers to the methodology and all aspects to be followed in selecting a sample from the population in general, and target population in particular. This allows the study to define assessments to be used to infer the population parameters which must be taken into consideration to create an accurate sample population; which can influence the reliability of the results obtained and therefore must be considered carefully (Jiang *et al.*, 2013). The sample design in this study comprises the population of interest, the sample selection method as well as the sample size.

Population of interest

For this study, the geographical area is South Africa, looking specifically at areas that have the relevant online retail grocery shopping infrastructure. The population targeted for this



Source(s): Authors' conception (2021)

Figure 1.
Conceptual model

study is young consumers (Generation Y and Generation Z) in South Africa, both male and female, between the ages of 18–35 years old (Duh & Struwig, 2015).

Sample selection

There are two categories into which sampling techniques can be grouped; these are probability and non-probability sampling. In a non-probability sampling method, the population elements do not have a known probability of being selected, and in probability sampling all members of the population have a chance of being chosen (Wiid & Diggines, 2015). For this study, probability sampling method was the most relevant, specifically, stratified sampling. A stratified probability sampling method was applied due to its accuracy and easy-to-use merits, over other methods. The current study made use of social media platforms (WhatsApp, Instagram, Twitter, Facebook as well as LinkedIn) to reach young consumers in South Africa in order to gather responses from participants as conveniently as possible.

Sample size

In attempting to draw a sample, this study identified the most appropriate balance between expenses and sufficiency of the sample size (Hair, Black, Babin, & Anderson, 2019). The sample size was determined using a statistical method, in particular Smart Partial Least Squares (PLS), which also does not require a large sample (Wiid & Diggines, 2015). Although the population of interest for this study is a significantly large one, the methodology and tools that have been employed in this study warrant a sample size of 100 as being sufficient; and furthermore, it is at the same time large enough to correctly represent the chosen population of interest. The justification for such sample size of 100 was as a result of accuracy based on the desired width of confidence interval with respect to the research study's inference goal and the assumption about the population standard deviation of the measure. It could not exceed 100 due to budget constraints as well as space and time constraints due to the COVID-19 pandemic.

Data collection methods

In quantitative research, data are collected through experiments or clinical trials, observing and recording well-defined events, obtaining relevant data from the management of information systems, administering surveys with closed ended questions, for example, face-to-face or telephone interviews and Internet or computer administered questionnaires. This study collected data through WhatsApp, Instagram, Twitter, Facebook, as well as LinkedIn, by distributing a questionnaire. The researchers involved in this study, sent out survey links to potential participants by way of attaching the survey link to messages that were forwarded to all the people with whom the researchers were already in contact on the platforms mentioned above. Participants were thus able to choose whether or not to participate as the survey had the permission letter as the first step participants go through before participating.

Measurement instrument

This study utilised the online survey or questionnaire method to collect data about the respondents in a systematic manner (Chiu *et al.*, 2005). Respondents were asked to indicate the extent to which they disagree or agree with each of the questions or statements in the survey by way of a psychometric response scale used in surveys or questionnaires to attain a respondent's degree of alignment, or lack thereof, with a statement (Hair *et al.*, 2019). This study utilised a five-point Likert scale and the Likert items were simply worded statements where the respondents could indicate their degree of disagreement or agreement and the

anchors used are such that (1) = Strongly disagree; (2) = Disagree; (3) = Neutral; (4) Agree; (5) = Strongly agree. Measurement instrument elements were from the relevant literature sources in line with the current study. PEOU and PU were from Min, Kam Fu So and Jeong (2018) and Chalomba, Duh, and Gujral (2019), PRs from Nyagadza *et al.* (2022a) and Plante *et al.* (2018), SI was from Chalomba *et al.* (2019), IQ was sourced from Roy and Moorthi (2017) and Wang and Lin (2017), ACC and convenience (C) were from Jiang *et al.* (2013), ATT was sourced from Min *et al.* (2018), and CI was sourced from Chalomba *et al.* (2019).

Data analysis and results

Sample profile

This section relays a summary of the demographic profile of the respondents to this study. The respondents revealed whether or not they had ever used online grocery shopping platforms to buy their groceries, their gender, age, how financially well-off they or their families are, their highest level of education completed, which digital grocery shopping platform they prefer as well as which *e*-grocery retailer they frequently make use of.

The response rate was thus 10%, which can be regarded as a good rate given that online survey response rates are generally less than 10% (Swayne, 2020). The study only considered the first 100 hundred (targeted) responses of which 40% (40 people) revealed that they had never used online retail grocery shopping to buy their groceries. Only the remaining 60% (60 people) that had used online retail grocery shopping were thus considered for further analysis. Of these 60 respondents, there was a majority of 36 females (60%) and a minority of 24 males (40%). Which is interesting considering that men are reported to make more online purchases, as well as generally spend more money online than women are reported to.

The above Table 1 reveals that the majority of the respondents were Generation Z young consumers between the ages of 18 and 25 years old, making up 43.3% (26 people) of the total

Sample characteristic		Frequency (*n*)	Percentage (%)
Gender	Male	24	24.0
	Female	36	36.0
	Total	60	60.0
Age	18–25 years old	26	43.3
	26–35 years old	21	35.0
	36 years old and below	13	21.7
	Total	60	100.0
Education	Matric	11	18.3
	Diploma/Certificate	4	6.7
	Undergraduate degree	24	40.0
	Postgraduate degree (Honours, Masters, Doctorate)	20	33.3
	Other	1	1.7
	Total	60	100.0
Occupation status	Student	21	35.0
	Employed	30	50.0
	Self employed	8	13.3
	Other	1	1.7
	Total	60	100.0
Income level	Very well-off	5	8.3
	Somewhat well-off	37	61.7
	Not so well-off	16	26.7
	Not so well-off at all	2	3.3
	Total	60	100.0

Source(s): Field data (2021)

Table 1. Descriptive statistics of online grocery shopping in South Africa

respondents considered for further analysis. The second largest group of respondents were Generation Y young consumers between the ages of 26 and 35 years old, making up 35% (21 people) of the total respondents considered for further analysis. The smallest group of respondents were older Generation Y consumers as well as Generation X consumers who are older than 36 years old and made up 21.7% (13 people) of the total respondents considered for further analysis.

Measurement model

This section discusses all the constructs that make up the conceptual model of this study, in particular PU, PEOU, accessibility, convenience, PRs, SI, IQ, ATT as well as CI (Hubner, Kuhn, & Wollenburg, 2016). The listed constructs have been tested for reliability and validity, the results of which are relayed in the tables below. The indicators from these constructs are then discussed with regard to the model's convergent validity as well as the discriminant validity (see Tables 2 and 3).

As opposed to convergent validity, discriminant validity tests whether concepts or measurements that are not supposed to be related are actually unrelated (Hamid, Sami, & Sidek, 2017). To establish discriminant validity, the researcher has to show that measures that should not be related are in reality not related. When correlations between measures reflect different constructs and cross-construct correlations are very low (i.e. near zero) they represent a discriminant validity and constructs are thus unrelated with the construct (Hamid *et al.*, 2017; Hair, Hult, Ringle, & Sarstedt, 2017, Hair *et al.*, 2019) (see Table 4).

Convergent validity

Average variance extracted (AVE) is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error. PEOU, PRs, ATT

Model fit indicators	Measurement model	Recommended thresholds	Recommended authors
X^2/df	1.872	<3.00	Hair *et al.* (2014)
CFI	0.943	<0.900	Hair *et al.* (2014)
IFI	0.937	<0.900	Hair *et al.* (2014)
RMSEA	0.027	<0.08	Hair *et al.* (2014)
SRMR	0.121	<0.08	Hair *et al.* (2014)

Source(s): Field data (2021)

Table 2. Results for the measurement model

	PU	PEOU	ACC	C	SI	PR	IQ	ATT	CI
PU	1								
PEOU	0.655**	1							
ACC	0.557**	0.432**	1						
C	0.587**	0.570**	0.575**	1					
SI	0.283*	0.341**	0.488**	0.313*	1				
PR	0.313*	0.413**	0.370**	0.365**	0.406**	1			
IQ	0.519**	0.539**	0.545**	0.595**	0.605**	0.655**	1		
ATT	0.593**	0.496**	0.298*	0.420**	0.199	0.545**	0.535**	1	
CI	0.604**	0.497**	0.527**	0.605**	0.376**	0.432**	0.586**	0.606**	1

Note(s): ** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)
Source(s): Field data (2021)

Table 3. Results of the discriminant validity analysis

as well as CI all have AVE values that are close to 1 and as such, can be regarded as constructs that are convergent and related to a specific construct, namely CI of online retail grocery shopping. The remaining five constructs have AVE values that are between −1 and 1 and as such, can be regarded as constructs that may not be convergent and also not related to the CI of online retail grocery shopping among young consumers.

Discriminant validity

Discriminant validity is a requirement in an instrument development that involves latent construct (Hair *et al.*, 2019). Discriminant validity as divergent validity meaning that two concepts should show significant differences conceptually (Field, Miles, & Field, 2012). It aims to prove that one construct is highly different from the other one (Hamid *et al.*, 2017). Discriminant validity can be assessed through cross loadings, heterotrait-monotrait (HTMT) and Fornell–Larcker criterion. However, in this research we used the Fornell–Larcker criterion. AVE was matched with squared inter-construct correlations in an attempt to measure discriminant validity. It is a measure that compares the square root of each construct's AVE with its correlations with all other constructs in the model (Maziriri, Nyagadza & Chuchu, 2022a, b; Ndofirepi *et al.*, 2022). The diagonal values are the square root of AVE, while other values are the correlations between respective latent construct its row and column. The square roots of AVE of the constructs were greater than the inter-construct correlation and fulfilled the criteria of discriminant validity.

Cronbach's alpha coefficient (α)

This study recognises the Cronbach's alpha **(*α*)** as the coefficient regulating the internal consistency of a scale or the average correlation of items in the same construct to gauge its reliability (Bhattacherjee, 2012). This study deems a moderately acceptable reliability validation to be achieved with a coefficient value between 0.7 and 0.8. A value higher than 0.8 is considered good, whereas a value below 0.6 is considered unacceptable in this study. The study also recognises, however, that the coefficient may also be accepted when it falls between 0.5 and 0.6. The study has achieved a moderately acceptable reliability validation between 0.792 and 0.891.

Composite reliability

The study regards composite reliability (CR) as the true-score variance relative to the total-score variance and it is a measure of internal consistency in scale items that provides a more suitable and fitting measure of internal consistency and reliability; where the acceptable threshold is required to exceed 0.7 (Hair, Black, Babin, & Anderson, 2014). Due to studies by

Table 4.
Cronbach's alpha values and composite reliability

Construct	AVE	Cronbach's alpha	Composite reliability
PU	0.448	0.792	0.847
PEOU	0.627	0.805	0.870
ACC	0.356	0.809	0.844
C	0.587	0.886	0.908
SI	0.503	0.857	0.889
PR	0.606	0.838	0.884
IQ	0.511	0.887	0.877
ATT	0.671	0.835	0.890
CI	0.695	0.891	0.919

Source(s): Field data (2021)

Fornell and Larcker (1981), an acceptable threshold for CR is above 0.7. This study has achieved an acceptable threshold between 0.844 and 0.919.

Structural model

Once the measurement model confirms the convergent and discriminant validity of all constructs, the second step is to evaluate the structural model to test hypothetical paths. Structural equation modelling is highly recommended due to its ability to simultaneously test hypothetical relationships and overall model fit (Hair *et al.*, 2019) (see Table 5).

The path coefficients indicate the strength of the relationship between the dependent and the independent variables. This section starts with a graphical representation of the path coefficients and *t*-values of the conceptual model followed by a table that provides the hypotheses, their *t*-values and whether or not they are supported, and finally presents a graphical representation of the strengths of the paths. The threshold in this study uses for a two-tailed test with a significance of 5% (0.05) is a *t*-value of 1.96. Hypotheses are supported when they meet the threshold-value of 1.96, which indicates the 5% level of significance (see Table 6).

Discussion

The above results are such that H1, H6, as well as H8 are accepted by this study as the *t*-statistic for each is greater than 2, and the *p* value for each is smaller than 0.5. This simply means that this study thus rejects the null hypothesis in H1, H6, as well as H8. According to literature (for example Al-Gahtani, 2016; Choi, 2013; Boon *et al.*, 2018; Chuchu & Ndoro, 2019; Singh & Rosengren, 2020; Güsken *et al.*, 2019) in this study, H1, H6 and H8 were indeed expected to be the case and so support previous findings, where this has been alluded to by both the technology acceptance model as well as the theory of reasoned action. The remaining five hypotheses, however, are not accepted as the *t*-statistic for each is lower than 2 and the

Model fit indicators	Structural model	Recommended thresholds	Recommended authors
X^2/df	2.031	<3.00	Hair *et al.* (2014)
CFI	0.941	<0.900	Hair *et al.* (2014)
IFI	0.939	<0.900	Hair *et al.* (2014)
RMSEA	0.034	<0.08	Hair *et al.* (2014)
SRMR	0.121	<0.08	Hair *et al.* (2014)

Source(s): Field data (2021)

Table 5. Results for structural model

Hypotheses	Relationship	Path coefficient	*t* values	*p* values	Outcome
H1	PEOU → ATT	0.034	0.250	0.858	Unsupported (Insignificant)
H2	PU → ATT	0.505	3.694	0.001	Supported (Significant)
H3	SI → ATT	−0.019	0.119	0.906	Unsupported (Insignificant)
H4	ACC → ATT	−0,160	1.142	0.256	Supported (Insignificant)
H5	C → ATT	0.041	0.354	0.724	Unsupported (Insignificant)
H6	IQ → ATT	0.098	0.646	0.570	Supported (Insignificant)
H7	PR → ATT	0.363	2.320	0.022	Supported (Significant)
H8	ATT → CI	0.636	7.676	0.00	Supported (Significant)

Source(s): Field data (2021)

Table 6. Hypotheses testing results of the structural model path coefficients

p-value is greater than 0.05 in each of those five hypotheses. These results are quite surprising as they refute previous findings by contradicting the TRA (Ajzen & Albarracín, 2007; Fishbein & Ajzen, 1975) and the TAM (Chien, Kurnia, & von Westarp, 2003; Bauerová & Klepek, 2017) which both aim to explain the relationship between ATT and behavioural outcome and how users come to accept the use of technology; these models have also proven PEOU (Davids, 1989; Chuchu & Ndoro, 2019; Zhou *et al.*, 2019) ACC (Farag *et al.*, 2007), convenience (Jiang *et al.*, 2013), IQ as well as SI to have a positive relationship with ATT (Boon *et al.*, 2018), which is contrary to the findings of this study. An interesting note as well is the fact that PU (Bauerová & Klepek, 2017) seemed, given the results from the measurement model assessment of this study, to be lacking as a significant construct; but turned out to be profound as theory suggested.

Implications

The following are the implications for practice and theory of the study.

Implications for practice

This study contributed to marketing practice by assisting the *e*-commerce as well as *m*-commerce practitioner in identifying the factors that influence consumer ATT and subsequently their continued use of online and mobile grocery shopping among young adult consumers in South Africa. This will thus inform marketing practitioners of the variables they should be focussing on for reuse which, in this case, are PU, PR and ATT. The implication for South African *e*-grocery marketers is to map their customers' immediacy expectations and determine which moments in their lives merit strategic attention, which products and design features may capture consumers' temporal needs, and how consumers can be leveraged as participants in value creation networks (Zolfagharian & Yazdanparast, 2019). According to Chalomba *et al.* (2019), mobile applications provide limitless options for brand management around the world, especially in South Africa, which has followed worldwide trends and seen a rise in mobile app usage due to fast smartphone adoption. Young adults are identified as the most important target market for *e*-grocery purchasing in this survey. This target market can be divided into two groups: "new technologists" or Gen Z consumers, who are typically young and embrace technology, and "time-starved" or Gen Y consumers, who are price averse and would be willing to pay a premium for a service or product that saves them time. This research also recognises that each category needs its own marketing goal (Rishi & Pradeep, 2018). This is in line with the study's target market or segments, and it shows that the target market is a viable one for *e*-grocery shops in South Africa (Driediger & Bhatiasevi, 2019). Given that the generation of young people rely heavily on Internet sources for information, the presence of *e*-grocery merchants is essential.

Implications for theory

This study contributed to academic literature by examining system factors that contribute to the TAM, as well as examining marketing factors that influence ATT and in so doing, contributed to the TRA. According to the TRA, stronger intentions lead to greater effort in performing the behaviour, increasing the probability of the behaviour in the future. The TRA also claims that immediate antecedents to conduct, such as behavioural intentions, are a component of salient information or beliefs about the probability of performing the behaviour leading to a particular result, in this particular instance, behavioural intention, explicitly reuse/ CI (Ajzen & Albarracín, 2007). TRA and the theory of planned behaviour have already been utilised as the basis for a number of studies into online purchase behaviour. Internet purchasing behaviour alludes to the act of purchasing goods, services, or information over

the Internet. Many consumers are hesitant to conduct business over the Internet, since they are concerned about the privacy of their personal information (Nyagadza, 2022). Developing economies can benefit from applying a model that has been tried and tested with proof of concept, allowing them to quickly accept and adapt to these new technologies, maximising their chances of reaping maximum returns and advantages from continuing use (Bauerová & Klepek, 2017). Cross-cultural considerations, on the other hand, offer evidence of varying degrees of effect for relationships in different cultures, which this study suggests is as a result of diverse external environments for buying within these cultures. This type of online shopping is thought to have the most growth potential, so online grocery shopping retailers must ensure that the system factors that influence user experience, such as PEOU and PU, have a positive significant effect on ATT, ensuring consistent usage. The study examined the importance of the process behind a consumer's reception of related marketing efforts through the SOR model. This is evident, particularly in the significant marketing factor PR, which has been proven to influence ATT and contributed to the above-mentioned models.

Conclusion

This study aimed to determine the influence of system and marketing factors on the CI of online and mobile grocery shopping among South Africa's young adult consumers and subsequently, the impact of ATT on re-usage intention. This was successfully achieved through a systematic literature review which identified *a priori* theoretical support to determine antecedent factors influencing ATT and subsequently reuse as well as a research and methodological approach which quantitatively determined the significance of variables through statistical analyses. *E*-commerce benefits both customers and businesses by providing simple access to goods and services, as well as low costs in commercial activities. *E*-commerce automation enables customers to make purchases online, businesses to process online orders and financial transactions to be completed quickly. Despite these advantages, South African firms have indeed been slow to implement the concept. *E*-commerce has enabled retailers to expand their physical footprint while also allowing customers to buy their products online. The online grocery buying approach is popular among Gen Y customers. Furthermore, these customers' expectations are oriented towards relational and experience elements, resulting in a long-term value on which to base marketing communication campaigns and proper value proposition selling.

Limitations and agenda for future research directions

Limitations for this study are such that it only focused on young consumers in South Africa, so future research could also look at young consumers in other African states to get a broader understanding of how young consumers in Africa, as a whole, are interacting with online retail grocery shopping platforms. Aside from the demographic limitations mentioned above, this study also points out some limitations regarding the psychographic constructs. One of the limits in this regard then is such that this study could not infer which cohort between Generation Y and Generation Z make up each of the categories in income level and as such, this presents a future research opportunity. Future research opportunities also lie in figuring out what factors of online retail grocery shopping each cohort perceives to be useful, easy to use, accessible as well as convenient. Future research could also focus on figuring out what factors of IQ influence each cohort to use online retail grocery shopping, what factors of PRs influence each cohort to use online retail grocery shopping, what factors of online retail grocery shopping directly and positively influence ATT for each cohort, as well as exactly what combination of factors of online retail grocery shopping directly positively influence CI for each cohort. Since the sample size is relatively small, further future research studies can test the same model with bigger sample sizes to assess generalisability of the results in different locations.

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About the authors

Neo Ligaraba is a senior lecturer in the Department of Marketing, Faculty of Business Sciences, University of the Witwatersrand, Johannesburg, South Africa. She completed her PhD at the University of the Witwatersrand, focussing on Brand Experiences and Young Consumers. Her areas of research are in Digital Marketing and Brand Management. She has published papers in reputable journals including *Journal for New Generation Sciences, The Service Industries Journal, Solid State Technology, Real Estate Management and Valuation* and *The Retail and Marketing Review*.

Brighton Nyagadza is a full time lecturer and a chairperson in the department of marketing (digital marketing) at Marondera University of Agricultural Sciences and Technology (MUAST), Zimbabwe, full member of the Marketers Association of Zimbabwe (MAZ), an associate of The Chartered Institute of Marketing (ACIM), United Kingdom and Power Member of the Digital Marketing Institute (DMI), Dublin, Ireland. He has published several book chapters in Routledge books of Taylor and Francis Publishers, New York (USA), Emerald Insight, United Kingdom (UK), Lexington books of the Rowan and Littlefield Publishers, Maryland (USA) and in reputable international journals such as *Journal of Digital Media and Policy* (Intellect), *Sustainable Technology and Entrepreneurship* (Elsevier), *Journal of Fashion Marketing and Management* (Emerald), *European Journal of Management Studies* (Emerald), *Journal of Entrepreneurship in Emerging Economies* (Emerald), *Journal of Environmental Media* (Intellect), *European Journal of Innovation Management* (Emerald), *Africa Review* (Brill), *Tourism Critiques: Practice and Theory* (Emerald), *Journal of Asian and African Studies* (SAGE), *PSU Research Review* (Emerald), *Youth and Society* (SAGE), *Quality Assurance in Education* (Emerald), *The Marketing Review* (Westburn), among others. Brighton sits on various professional corporate and academic boards including the *Mashonaland East Province Zimbabwe National Development Strategy (NDS) Committee (2021–2025) – ICT and Human Capital Development* cohort. Brighton Nyagadza is the corresponding author and can be contacted at: brightonnyagadza@gmail.com

Danie Dörfling is a postgraduate honours student in Marketing at the University of the Witwatersrand, Johannesburg, South Africa.

Qinisoliyakhulula Mhlengi Zulu is a postgraduate honours student in Marketing at the University of the Witwatersrand, Johannesburg, South Africa.