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Neuromanagement decision-making and cognitive algorithmic processes in the technological adoption of mobile commerce apps

JEL Classification: L81; O14; O33

Keywords: mobile shopping app; mobile commerce platform; mobile payment service; Internet-enabled consumer device; consumer technological adoption

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Abstract

Research background: With growing evidence of consumer adoption of mobile shopping apps, there is a pivotal need for comprehending Internet-enabled consumer devices in mobile shopping behavior. Mobile shopping platform features and user technological readiness configure consumers' expectations and demands as regards mobile retailing adoption, leading to acceptance of mobile shopping apps and payment services.

Purpose of the article: In this research, prior findings have been cumulated indicating that mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones. We contribute to the literature by showing that cutting-edge technological developments associated with customer behavior in relation to mobile commerce apps have resulted in the rise of data-driven systems. Consumer behavioral intention and adoption intention in relation to mobile shopping apps/websites are developed on perceived risk and trust consequences.

Methods: Throughout February and March 2021, a quantitative literature review of the Web of Science, Scopus, and ProQuest databases was carried out, with search terms comprising “mobile shopping app”, “mobile commerce platform”, “mobile payment service”, “Internet-enabled consumer device”, “consumer technological adoption”, and “mobile shopping behavior”. As research published between 2018 and 2021 was analyzed, only 330 sources met the suitability criteria. By removing questionable or indeterminate findings (insubstantial/inconsequent data), results unconfirmed by replication, too imprecise content, or having quite similar titles, 66, chiefly empirical, sources were selected. A systematic review of recently published literature was carried out on technological adoption of mobile commerce apps by employing Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines. The Systematic Review Data Repository was used, a software program for the gathering, handling, and analysis of data for the systematic review. The quality of the academic articles was determined by harnessing the Mixed Method Appraisal Tool.

Findings & value added: The consumer purchase decision-making process in mobile app-based marketing involves consumer engagement and willingness to adopt mobile commerce apps. Further advancements should clarify how technological-based consumer adoption of mobile shopping throughout social commerce can improve the payment for products and services.

Introduction

The purpose of our systematic review is to examine the recently published literature on consumer adoption of mobile shopping apps and integrate the insights it configures on Internet-enabled consumer devices in mobile shopping behavior. By analyzing the most recent (2018–2021) and significant (Web of Science, Scopus, and ProQuest) sources, our paper has attempted to prove that cutting-edge technological developments associated with customer behavior in relation to mobile commerce apps have resulted in the rise of data-driven systems. The actuality and novelty of this study are articulated by addressing technological adoption of mobile commerce apps, that is an emerging topic involving much interest. Our research problem is whether mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones.

In this review, prior findings have been cumulated, indicating that users' behavioral intention in relation to mobile commerce adoption is configured

by consumer use behavior in relation to mobile payment services and apps; consumer behaviors, attitudes, and intentions to adopt mobile shopping; and consumer motivational factors in purchasing products and services by use of mobile shopping apps. The identified gaps advance technology adoption of mobile commerce apps with reference to operational performance of personalized and customized marketing strategies aiming at an increase in consumer trust, perceived value, purchase intention, and satisfaction. Our main objective is to indicate that shopping app-based mobile commerce acceptance associated with the ensuing harnessing of information technologies shape behavioral intention (Brown, 2021; Davies, 2020; Johnson, 2020; Novak *et al.*, 2021; Sion, 2019) and usage of mobile payment services and apps. Thus, consumers' decision-making to shift from cash to mobile payment is pivotal.

Research Question 1: Consumer perceived value and motivation, online convenience, continuance intention, and impulse buying behavior shape mobile commerce adoption and effectiveness. This systematic review contributes to the literature on technological adoption of mobile commerce apps by clarifying that the dissemination of digital technologies associated with customers' intentions to adopt smart retail technology (Campbell *et al.*, 2021; Kovacova & Lewis, 2021; Nica, 2021; Stehel *et al.*, 2021) is furthered by consumers' system adoption and satisfaction in accessing mobile shopping apps/websites, impacting users' online buying intention.

Research Question 2: Mobile commerce apps and mobile payment tools influence users' attitudes and behaviors in terms of satisfaction, reliance, and loyalty, configuring consumer experience and innovativeness, acceptance and adoption intention, perceived risk and trust, and technological expertise. This research endeavors to elucidate whether customer use of in-store smart technology and the adoption of digital products and services are influenced by the cutting-edge developments (Bekken, 2019; Eskridge, 2019; Grant, 2021; Lewis, 2021) and mobile shopping apps users' expectations of groundbreaking devices.

Research Question 3: Behavioral intention to leverage mobile technologies impacts the technology acceptance of online shopping services as regards perceived quality, reliability, and performance. Our contribution is by integrating research findings indicating that the consumer purchase decision-making process in mobile app-based marketing involves adoption of Internet-enabled consumer devices (Lăzăroiu & Harrison, 2021; Kovacova & Lăzăroiu, 2021; Nica & Stehel, 2021; Wells *et al.*, 2021) in mobile shopping behavior and attitudes.

Research Question 4: The efficiency of the mobile commerce systems and apps articulate shopping behavior patterns, customer engagement, and usage intention. Mobile shopping platform features and user technological readiness shape satisfaction and intention to purchase products and services by use of mobile payment apps. Consumer engagement, willingness to adopt mobile commerce apps, and consumer behavioral intention in relation to mobile shopping apps/websites (Gibson, 2021; Lewis, 2020; Nica *et al.*, 2019; Robinson, 2020; Valaskova *et al.*, 2021a) are developed on perceived risk and trust consequences. Consumers' expectations, intentions, behavior, and demands as regards mobile retailing adoption are configured by continuing acceptance of mobile shopping apps and payment services. The swift increase in smartphone adoption and technological breakthroughs as regards mobile devices facilitate the payment for products and services.

The manuscript is organized as following: theoretical overview (section 2), methodology (section 3), consumer use behavior in relation to mobile payment services and apps (section 4), consumer behaviors, attitudes, and intentions to adopt mobile shopping (section 5), consumer motivational factors in purchasing products and services by use of mobile shopping apps (section 6), discussion (section 7), conclusions, limitations, implications, and further directions of research (section 8).

Theoretical overview of the main concepts

Consumer trust, perceived value, buying predisposition, and satisfaction are instrumental in articulating behaviors, attitudes, and intentions to adopt mobile shopping (Anshari *et al.*, 2021; Dewi *et al.*, 2020; Ghazali *et al.*, 2018; Liu *et al.*, 2020; Sharma *et al.*, 2018; Tarhini *et al.*, 2019), constituting motivational factors in purchasing products and services (Cho & Son, 2019; Graf-Vlachy *et al.*, 2018; Loh *et al.*, 2021; Roy *et al.*, 2020; Seeger *et al.*, 2019; Touzani *et al.*, 2018). Consumer use behavior in relation to mobile payment services and apps (Bhattacharya & Anand, 2019; Dasgupta & Gupta, 2019; Kaur *et al.*, 2020; Marriott & Williams, 2018; Pantano & Vannucci, 2019; Rodríguez-Torrico *et al.*, 2020) is configured by consumer perceived value and motivation, online convenience, continuance intention, and impulse buying behavior (Chopdar & Balakrishnan, 2020; Kim *et al.*, 2021; Patel *et al.*, 2020). Mobile commerce apps and mobile payment tools influence consumer usage intention, shopping behavior patterns, and perceived quality, risk, and trust in terms of technology acceptance, adoption, and effectiveness, according to user experience and innovativeness (Bailey

et al., 2020; Kalinić *et al.*, 2020; Kang & Namkung, 2019; McLean *et al.*, 2020; Tyrväinen & Karjaluoto, 2019; Zafar *et al.*, 2021).

Customer engagement, satisfaction, and loyalty in using online shopping and payment services are shaped by technological expertise, reliability, and performance (Boardman & McCormick, 2018; McLean, 2018; Nel & Boshoff, 2019; Phong *et al.*, 2018; Siyal *et al.*, 2021; Vahdat *et al.*, 2020). Consumer attitudes and behaviors as regards acceptance and adoption of mobile shopping apps and Internet-enabled consumer devices have resulted in the rise of data-driven systems furthered by the cutting-edge developments (Chopdar *et al.*, 2018; Jung *et al.*, 2020; Li & Ku, 2018; Madan & Yadav, 2018; Mamun *et al.*, 2020; Talwar *et al.*, 2020a; Verkijika, 2020). The consumer purchase decision-making process in mobile app-based marketing develops on the widespread adoption of smartphones and the ensuing harnessing of information technologies (Chi *et al.*, 2021; Chopdar & Sivakumar, 2019; Fazal-e-Hasan *et al.*, 2021; Ho & Rezaei, 2018; Singh *et al.*, 2020; Talwar *et al.*, 2020b).

Mobile shopping applications and payment services determine groundbreaking technological developments associated with consumer behavioral intention and adoption intention, shaping satisfaction to purchase products and services by use of smart retail systems (Cheong *et al.*, 2019; Dahabiyeh *et al.*, 2020; Gong *et al.*, 2018; Liébana-Cabanillas *et al.*, 2020; Park *et al.*, 2019; Tueanrat *et al.*, 2021). The dissemination of digital technologies associated with customers' intentions to accept and adopt shopping app-based mobile commerce configure users' expectations of groundbreaking devices, reducing perceived risk and trust (Brusch & Rappel, 2020; Groß, 2018; Li, 2019; Pandey & Chawla, 2019; Sabir, 2020; Sarkar *et al.*, 2020; Sohn & Groß, 2020). Mobile shopping platform features and user technological readiness assist in improving consumer engagement and willingness to accept and adopt mobile commerce apps (Camoiras-Rodriguez & Varela, 2020; Chen, 2018; Dhiman *et al.*, 2020; Groß & Sohn, 2021; Nel & Boshoff, 2020; Patil *et al.*, 2020; Saha *et al.*, 2021).

Method

A systematic review of recently published literature was carried out on technological adoption of mobile commerce apps by employing Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines. The flow diagram, produced by employing a Shiny app, presents the stream of evidence-based collected and processed data through the various steps of a systematic review, designing the amount of identified,

included and removed records, and the justifications for exclusions. The inclusion criteria were (i) articles included in the Web of Science, Scopus, and ProQuest databases, (ii) publication date between 2018 and 2021, (iii) written in English, (iv) being an original empirical research or review article, and (v) particular search terms covered; (i) conference proceedings, (ii) books, and (iii) editorial materials were eliminated from the analysis. The Systematic Review Data Repository was used, a software program for the gathering, handling, and analysis of data for the systematic review. This Web-based collaborative resource is configured as an archive and tool harnessed in data extraction through transparent, efficient, and reliable quantitative techniques. Elaborate extraction forms can be set up, meeting the needs of research questions and study designs. The quality of the academic articles was determined by harnessing the Mixed Method Appraisal Tool, a critical appraisal instrument that tests content validity and usability of all selected studies in terms of screening questions, type of design, corresponding quality criteria, and overall quality score. Extracting and inspecting publicly accessible files (scholarly sources) as evidence, before the research began no institutional ethics approval was required. (Figure 1)

Throughout February and March 2021, a quantitative literature review of the Web of Science, Scopus, and ProQuest databases was carried out, with search terms comprising “mobile shopping app”, “mobile commerce platform”, “mobile payment service”, “Internet-enabled consumer device”, “consumer technological adoption”, and “mobile shopping behavior”. The search terms were determined as being the most employed words or phrases across the analyzed literature. As research published between 2018 and 2021 was analyzed, only 330 articles met the suitability criteria. By removing questionable or indeterminate findings (insubstantial/inconsequent data), results unconfirmed by replication, too imprecise content, or having quite similar titles, 66, chiefly empirical, sources were selected (Tables 1 and 2).

Consumer use behavior in relation to mobile payment services and apps

The swift increase in smartphone adoption and technological breakthroughs as regards mobile devices facilitate the payment for products and services (Anshari *et al.*, 2021; Jung *et al.*, 2020; Talwar *et al.*, 2020a; Throne & Lăzăroiu, 2020; Verkijika, 2020), in addition to money transfer between individuals. Huge volumes of user-related big data gathered from mobile payment services assist advertisers and marketers in better grasping their

target consumer behavior. Integrating mobile payment services into mobile advertising campaigns assist in assessing precisely the return on investment. The subsequent upside of mobile payment services is not confined to enhancing consumers' activities by supplying value-added services, as it encompasses the collection of large-scale data as regards users' mobile platform consumption, furthering the concrete prediction of consumer behaviors and configuring coherent advertising campaigns. Ease of use is a relevant predictor of users' adoption of mobile payment services. Affect and anticipated regret positively shape behavioral intentions in relation to mobile payments. Perceived information quality, ability, and benefit influence positive word of mouth, while perceived cost, risk, and uncertainty bring about negative word of mouth, as regards continued intention to employ mobile payments. Adoption of mobile payments may improve the performance of financial entities and the supplying of groundbreaking services with the aim of customer satisfaction.

Mobile payment services are progressively adopted (Bailey *et al.*, 2020; Kalinić *et al.*, 2020; Kaur *et al.*, 2020; Liébana-Cabanillas *et al.*, 2020; Loh *et al.*, 2021; Nica *et al.*, 2021; Park *et al.*, 2019; Patil *et al.*, 2020; Sharma *et al.*, 2018) for enhancing the scale, output, and relative importance of mobile shopping apps. Performance expectancy, grievance redressal, and intention to use constitute positive predictors of consumer use behavior in relation to mobile payment. Intention to use is considerably driven by social influence, attitude, and facilitating conditions. Risk, usage, and value barriers are negatively related to intentions to employ mobile payment solutions. Mobile payment may assist established brick-and-mortar retailers in improving the quality of customer service. Perceived ease of use, innovativeness, and stress determine the perceived convenience of mobile payment services. Trust does not constitute a relevant determinant of switching intention to mobile payment, but perceived security and privacy is. Social influence and technology anxiety shape upsides of mobile payment services. Convenience, satisfaction, and economic upsides positively influence attitudes, but experiential benefit brings about negative consequences. Attitudes positively affect the intention to use mobile payment services. Men are more predisposed than women to adopt mobile payments and consequently less impacted by the associated potential risks. Men are more readily affected by their social environment and women are more impacted by their personal innovativeness.

Technological-based consumer adoption of mobile shopping throughout social commerce (Lăzăroiu *et al.*, 2021; Li, 2019; Saha *et al.*, 2021; Sohn & Groß, 2020; Tyrväinen & Karjaluoto, 2019) harnesses social networking capabilities and encompasses characteristics that stimulate mobile shopping

apps users to share personal experiences. Users employ social networking sites to configure purchasing decisions and enable the advancement of advertising and promotion approaches. Social commerce constructs impact social interactions with regard to cognitive states (e.g., social presence together with informational and emotional support) and affective states (e.g., conventionality and contiguity), without affecting considerably social shopping intention. Social presence and informational support shape trust intention in product recommendations. Familiarity is relevantly impacted by informational and emotional support and much less by social presence. Familiarity impacts closeness, subsequently affecting trust in product recommendations that shapes social shopping intention, while informational support does not. Social commerce sites determine mobile shopping apps users' virtual experiences in addition to their intentions to buy products. Mobile shopping apps users customarily browse online stores by use of mobile channels while rarely carrying out transactions through them. Task- and channel-related determinants are pivotal to mobile purchasing intentions whose inhibitors are changeable. Consumer experiences with mobile purchasing moderates the determinants hindering mobile purchasing intentions. The beliefs of mobile shopping apps users as regards pre-buying activities influence mobile purchasing intentions. Online purchases reinforce environmental sustainability by cutting down the volume of shopping trips. Online convenience may consolidate online purchasing intention, resulting in environmental sustainability. Experienced users influence the link between service gratification and customer satisfaction. Contented users aim to remain online for an increased period of time and intend to pay more. Customers incline towards utilitarian upsides in the preliminary phases of use, when are short of experience on mobile channels. In subsequent phases, customers appreciate hedonic characteristics more. By turning a mobile channel into a purchasing one, retailers can articulate more coherent and more enjoyable user experiences (Table 3).

Consumer behaviors, attitudes, and intentions to adopt mobile shopping

User co-creation behavior, reaction, and experiential values (Chi *et al.*, 2021; Dahabiyeh *et al.*, 2020; Graf-Vlachy *et al.*, 2018; Gray-Hawkins & Lăzăroiu, 2020; Nel & Boshoff, 2019; Seeger *et al.*, 2019; Talwar *et al.*, 2020b; Tueanrat *et al.*, 2021) constitute pivotal characteristics of customer journey contentment. The main conclusions of these studies indicate that mobile shopping apps users' eagerness and social network pressure consti-

tute significant consumer behavior determinants that continue notwithstanding the level of risk related to technology adoption. The resistant user behavior to digital innovations is as relevant to grasp as adoption behavior. User experience positively impacts engagement behavior furthered by user–company and user–employee identification. User epistemic motivation impacts the mediated consequences of user experience on engagement behavior by user–employee identification. Mobile shopping-service experience may diminish mobile-service use resistance by disorganizing mobile shopping apps users’ habit-inertia behavior. By employing the retailer’s mobile service with the aim of product information and purchasing products by adopting other retailers’ mobile service, cumulated experience reduces the positive but unwanted impact of habit with regard to online-service inertia. The mobile Internet as a purchasing channel has surpassed the desktop device-based Internet, shaping shopping apps users’ behavior. Mobile channel usage is associated positively with product returns as regards purchases made by use of mobile devices and ones through desktop devices. As a result of new channels, mobile shopping apps users’ information environment is modified enough to influence their decision accuracy. Social influence thoroughly impacts human behavior and thus consumer mobile shopping apps adoption.

Positive attitudes in relation to mobile shopping apps (Kang & Namkung, 2019; Lyons & Lăzăroiu, 2020; McLean, 2018; McLean *et al.*, 2020; Singh *et al.*, 2020) lead to extensive purchasing frequency and loyalty towards the brand. The main conclusions of these studies indicate that smartphone screen size shapes consumer attitudes and behaviors. Ease of use, convenience, perceived risk, and attitude impact consumers’ intention to employ mobile shopping apps. Information quality and source credibility influence perceived convenience and ease of use that are both determinants of mobile shopping apps users’ confidence, attitudes, and behavioral intentions. Users having significant buying frequency rates are likely to handle messages by using the central route, while users having reduced purchasing frequency rates adopt the peripheral route. Satisfaction determines mobile app engagement in relation to initial adoption. Utilitarian determinants are more pivotal with regard to engagement after perpetual retention. Engagement impacts positive brand attitudes and loyalty towards the brand. Perceived ease of use and convenience, together with satisfaction, impact engagement with a mobile commerce app, while app personalization drives engagement. Utilitarian parameters as regards perceived ease of use and convenience are pivotal on engagement by use of a retailer’s mobile commerce app, subsequent to perpetual retention. The location of use impacts the variables determining engagement with a mobile commerce app.

Attitudinal and behavioral patterns, habits, and motivations (e.g., perceived value, appealing characteristics, and psychological features) (Cho & Son, 2019; Cooper *et al.*, 2021; Rodríguez-Torrico *et al.*, 2020; Touzani *et al.*, 2018; Vahdat *et al.*, 2020; Zafar *et al.*, 2021) are instrumental in mobile shopping apps users' connectedness. The main conclusions of these studies indicate that perceived usefulness does not impact attitude in relation to mobile app use. Perceived ease of use, intention to buy, and social and peer influence display positive consequences. Emotions positively impact the assessment of mobile shopping apps experience, enhancing the attitude in relation to the digital store. Excessive consumption originates in impulsive shopping. Mobile shopping apps users tend to spend more as a result of the customized environment of social media. Personalized advertising positively drives the predisposition to purchase on the spur of the moment by impulse buying tendency. Mobile shopping apps users' attitude stimulates them to purchase impulsively. Impulsive predispositions positively determine sustainable purchasing decisions. Environmental knowledge decreases the impulsive predispositions of mobile shopping apps users. Social connectedness positively affects mobile shopping apps users' perceptions of ease of use, convenience, and satisfaction, impacting their social commerce attitude and intention adoption. Social connectedness drives attitudes in relation to social commerce by utilitarian and hedonic considerations of social commerce.

Users' behavioral intention in relation to mobile commerce adoption (Chopdar *et al.*, 2018; Chopdar & Sivakumar, 2019; Dhiman *et al.*, 2020; Ghazali *et al.*, 2018; Ho & Rezaei, 2018; Kim *et al.*, 2021; Lăzăroiu *et al.*, 2020; Madan & Yadav, 2018; Tarhini *et al.*, 2019) is considerably affected by information quality, hedonic motivation, habit, facilitating conditions, performance expectancy, service quality, confidence, and price value. The main conclusions of these studies indicate that perceived innovativeness positively impacts mobile shopping apps users' attitude. Behavioral intentions are influenced by subjective norm, consumer attitude, and perceived behavioral control. Habit predicts both continuance intention and use behavior, while perceived risk does not affect considerably post-acceptance consumer behavior. Age and gender moderate the impact of hedonic motivation, personal innovativeness, and perceived critical mass on mobile shopping behavioral intention. Perceived ease of use, convenience, and behavioral control, in addition to attitudes, trust, and personal innovativeness shape user intentions in relation to mobile shopping adoption. As mobile shopping represents a personalized operation entailing money transactions, users are more prudent as regards adoption intentions without complying with social norms injudiciously. The link between subjective norms

and behavioral intention to adopt mobile shopping is not relevant. Perceived risks impact mobile shopping app adoption. Cultural features may moderate the consequences of consumer's privacy risk and security risk on behavioral intention and use behavior. User socialization clarifies behavioral intention of social commerce apps adoption. Post-usage convenience, social commerce communication, behavioral control, subjective norm, virtual community trust, perceived satisfaction, and attitude in relation to the apps constitute previous circumstances of behavioral intention as regards social commerce purchase decisions. Social media communication platform are decisive in consumer decision making with the aim of online product purchases. Personal innovativeness constitutes the most significant predictor of behavioral intention (Table 4).

Consumer motivational factors in purchasing products and services by use of mobile shopping apps

Cutting-edge technological developments associated with customer behavior in relation to mobile commerce apps (Chopdar & Balakrishnan, 2020; Groß & Sohn, 2021; Konecny *et al.*, 2021; Nel & Boshoff, 2020; Roy *et al.*, 2020) have resulted in the rise of data-driven systems across brick-and-mortar stores. The main conclusions of these studies indicate that relative upside, perceived intricacy or attractiveness, stream experience, satisfaction, retailer assistance, technology readiness, and confidence in user perception of shopping effectiveness shape customer adoption intentions. Online shoppers incline towards buying products by employing the retailer desktop website, and not the mobile website on a smartphone. Because of cognitive dissonance, users employing only desktop purchasing undervalue perceived attractiveness of mobile website transaction. Perceiving increased cognitive endeavor is grasped in mobile website purchasing to preserve consistency with their inertia. Perceived omnipresence and mobile commerce app incentives boost the state of impulsiveness and perceived value. Satisfying experience is positively built by impulsiveness that impacts customer repurchasing intention negatively. Age negatively moderates impulsiveness in relation to satisfying experience and repurchasing intention, but satisfying experience enhances customer repurchasing intention indirectly. User acceptance of mobile shopping amplifies order rate and volume. Both intrinsic and extrinsic beliefs influence user acceptance of mobile shopping. User shopping orientations affect the beliefs of mobile shopping. The more intensified the users' novelty-seeking inclination, brand consciousness, and impulsiveness, the more amplified the perceived

convenience and satisfaction of mobile shopping. Mobile shopping apps users' convenience consciousness diminishes the perceived satisfaction.

Mobile social apps extend throughout consumer attitudes and behaviors (Brusch & Rappel, 2020; Fazal-e-Hasan *et al.*, 2021; Gong *et al.*, 2018; Mamun *et al.*, 2020; Pandey & Chawla, 2019; Patel *et al.*, 2020) by the widespread adoption of smartphones. The main conclusions of these studies indicate that user retention with mobile social apps is instrumental for app-related firms. Trust determined by consumer enjoyment and perceived critical mass is decisive in affecting the continuance intention of mobile shopping apps use. Tie strength impacts negatively the link between trust and mobile social app continuance intention. Tie strength and perceived critical mass affect the continuance intention of less experienced consumers. The impact of frequency is closely related to the continuance intention of extremely experienced consumers. Trust is instrumental in shaping the continuance intention of experienced consumers, while clarifying that continuance intention drivers are dissimilar among consumers having varying experiences. Perceived risk, trust, and enjoyment, in addition to performance expectancy, significantly influence the extensiveness of social media adoption, thereby affecting user engagement. Perceived novelty, usefulness, and compatibility constitute antecedents to users' intentions to adopt smart retail technology. Perceived risk of smart retail technology decreases customers' predispositions to use it. Perceived satisfaction, social influence, and innovativeness determine the discrimination levels of mobile commerce service users. Perceived enjoyment influences considerably the intention to use instant shopping. Mobile shopping app-interface quality impacts perceived enjoyment directly and consumer purchasing intention indirectly.

The dissemination of digital technologies associated with customers' intentions to adopt smart retail technology (Camoiras-Rodriguez & Varela, 2020; Cheong *et al.*, 2019; Dasgupta & Gupta, 2019; Liu *et al.*, 2020; Pantano & Vannucci, 2019; Sabir, 2020; Sarkar *et al.*, 2020; Siyal *et al.*, 2021) is swiftly booming in the physical stores because of the cutting-edge developments and mobile shopping apps users' expectations of groundbreaking devices. The main conclusions of these studies indicate that mobile commerce covers mobile web browsers and smartphone shopping apps. Users' value consciousness and shopping enjoyment impact mobile shopping intention indirectly. Shopping enjoyment is associated with usefulness and value consciousness is associated with both usefulness and ease of use. Product design represents a dynamic component that involves users' experiential value, intensifying their satisfaction. Affect thoroughly mediates the link between symbolic dimension and contentment. The prolonged sustainability of mobile app-based services is contingent upon the level of user

satisfaction. Decision-making styles impact the mobile shopping apps adoption. Convenience and risk perceptions are dissimilar across users having distinct decision-making styles. Enjoyment and customization impact users' arousal and pleasure. Input, visuality, and economic upsides drive user's arousal, resulting in increased consumer pleasure. Arousal and pleasure impact impulsive buying. Espoused cultural characteristics affect consumer acceptance and adoption of the Internet technology.

The fashionableness of online social networks has influenced the shopping decisions of mobile shopping apps users (Bhattacharya & Anand, 2019; Dewi *et al.*, 2020; Li & Ku, 2018; Marriott & Williams, 2018; Phong *et al.*, 2018) on social commerce sites. The main conclusions of these studies indicate that the push effect, as regards low transaction efficiency, discourages consumers from using e-commerce sites. The pull effect (e.g., self-presentation in addition to social presence, support, and benefit) exert influence on consumers to social commerce sites. Performance and effort expectancy together with personal innovativeness drive mobile shopping apps adoption. Anxiety displays a negative and relevant link with online buying intention particularly for women. The online consumer shopping criteria have been reconfigured throughout the digitized marketing environment towards a fashionable and dynamic market-oriented lifestyle, assisting online marketers in providing superior customer value with enhanced service quality to ensure mobile shopping apps user retention. Although mobile device usage is extremely high, use for mobile shopping activities is quite reduced. Confidence and risk perceptions have dissimilar consequences on users' mobile shopping intention. Mobile shopping represents the fashionable trend for companies to conduct business, with significant upsides over electronic and traditional shopping.

The marketing determinants influencing user mobile shopping (Boardman & McCormick, 2018; Chen, 2018; Groß, 2018) need elucidation. The main conclusions of these studies indicate that price comparison and purchasing independence option, platform use habit, and promotion marketing quality are relevantly related to consumers' mobile shopping apps/websites adoption. Promotion, price, and product marketing quality influence consumer satisfaction with regard to mobile shopping apps/websites. Both consumer adoption and user satisfaction concerning mobile shopping apps/websites are pivotal in stimulating their continuous use intention. User satisfaction is instrumental in branding and relationship administration of mobile shopping apps/websites. Price comparison and purchasing independence option are relevantly related to consumer adoption of mobile shopping apps/websites as a result of the practical access enabled by shopping service mobility. Product, price and promotion may shape a conven-

ient lifestyle accommodating mobile shopping users. The relevant consequences of both system use and consumer gratification in triggering users' incessant mobile shopping intention configures a positive relationship between consumers' mobile shopping apps/websites adoption to their maintaining the associated behavior. Utilitarian and hedonic shopping value determines user gratification with a significant level of compatibility belief. Vendor trust and social value are significant for consumers having a reduced level of compatibility belief. The mobile shopping loyalty of users having a reduced level of compatibility belief is essentially driven by consumer perception of vendor trust. Mobile commerce constitutes the adopted purchasing channel for the young adults, but its acceptance and motivations to use diminishes with age. Electronic commerce represents the most fashionable purchasing channel because of satisfaction, option, adventure/exploration, in addition to idea shopping (Table 5).

Discussion

We integrate our systematic review throughout research indicating how consumer adoption of mobile shopping apps is articulated by: consumer use behavior as regards mobile payment services and apps (Anshari *et al.*, 2021; Chopdar *et al.*, 2018; Graf-Vlachy *et al.*, 2018; Li, 2019; Nel & Boshoff, 2020; Saha *et al.*, 2021; Touzani *et al.*, 2018); consumer behaviors, attitudes, and intentions to adopt mobile shopping (Bailey *et al.*, 2020; Chopdar & Sivakumar, 2019; Groß, 2018; Liébana-Cabanillas *et al.*, 2020; Pandey & Chawla, 2019; Sarkar *et al.*, 2020; Tueanrat *et al.*, 2021); and consumer motivational factors in purchasing products and services by use of mobile shopping apps (Bhattacharya & Anand, 2019; Chopdar & Balakrishnan, 2020; Groß & Sohn, 2021; Liu *et al.*, 2020; Pantano & Vannucci, 2019; Seeger *et al.*, 2019; Tyrväinen & Karjaluo, 2019) — all of them configuring users' behavioral intention in relation to mobile commerce adoption (Research Question 1). Mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones. The swift increase in smartphone adoption and technological breakthroughs as regards mobile devices (Dabija & Lung, 2019) facilitate the payment for products and services. Technological-based consumer adoption of mobile shopping throughout social commerce (Chen, 2018; Dhiman *et al.*, 2020; Kang & Namkung, 2019; Marriott & Williams, 2018; Phong *et al.*, 2018; Sohn & Groß, 2020) harnesses social networking capabilities. Cutting-edge technological developments associated with customer behavior in relation to mobile commerce apps (Barbu *et al.*, 2021) have

resulted in the rise of data-driven systems. The dissemination of digital technologies associated with customers' intentions to adopt smart retail technology is furthered by the cutting-edge developments (Valaskova *et al.*, 2021b) and mobile shopping apps users' expectations of groundbreaking devices (Research Question 2).

Our research complements recent analyses clarifying how shopping app-based mobile commerce acceptance associated with the ensuing harnessing of information technologies encompass factors that are pivotal in the consumers' decision-making to shift from cash to mobile payment. Thus customer use of in-store smart technology is shaped, the adoption of digital products and services is influenced (Kliestik *et al.*, 2021), user intentions and consumer behavior are driven (Ginevicius *et al.*, 2020), and consumers' system adoption and satisfaction in accessing mobile shopping apps/websites are determined. Consequently, users' online buying intention is impacted (Boardman & McCormick, 2018; Dahabiyeh *et al.*, 2020; Ho & Rezaei, 2018; Loh *et al.*, 2021; Park *et al.*, 2019; Sharma *et al.*, 2018; Vahdat *et al.*, 2020), mobile shopping adoption intention is affected (Brusch & Rappel, 2020; Dasgupta & Gupta, 2019; Jung *et al.*, 2020; Madan & Yadav, 2018; Patel *et al.*, 2020; Singh *et al.*, 2020; Verkijika, 2020), and behavioral intention and usage of mobile payment services and apps are configured (Camoiras-Rodriguez & Varela, 2020; Dewi *et al.*, 2020; Kalinić *et al.*, 2020; Mamun *et al.*, 2020; Patil *et al.*, 2020; Siyal *et al.*, 2021; Zafar *et al.*, 2021) (Research Question 3).

We elucidate, by cumulative evidence, previous research demonstrating how adoption of Internet-enabled consumer devices in mobile shopping behavior and attitudes (Cheong *et al.*, 2019; Fazal-e-Hasan *et al.*, 2021; Kaur *et al.*, 2020; McLean, 2018; Rodríguez-Torrico *et al.*, 2020; Talwar *et al.*, 2020a) shapes satisfaction and intention to purchase products and services (Geamănu, 2011a, b) by use of mobile payment apps. Mobile shopping platform features and user technological readiness configure consumers' expectations and demands (Stefko *et al.*, 2019) as regards mobile retailing adoption by continuing acceptance of mobile shopping apps and payment services. The consumer purchase decision-making process in mobile app-based marketing involves consumer engagement and willingness (Chi *et al.*, 2021; Ghazali *et al.*, 2018; Kim *et al.*, 2021; McLean *et al.*, 2020; Roy *et al.*, 2020; Talwar *et al.*, 2020b) to adopt mobile commerce apps. Consumer behavioral intention and adoption intention in relation to mobile shopping apps/websites (Cho & Son, 2019; Gong *et al.*, 2018; Li & Ku, 2018; Nel & Boshoff, 2019; Sabir, 2020; Tarhini *et al.*, 2019) are developed on perceived risk and trust consequences (Research Question 4).

Conclusions

Relevant research has investigated whether mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones. This systematic literature review presents the published peer-reviewed sources covering consumer adoption of mobile shopping apps and Internet-enabled consumer devices in mobile shopping behavior. The research outcomes drawn from the above analyses indicate that groundbreaking technological developments associated with customer behavior in relation to mobile commerce apps determine shopping app-based mobile commerce acceptance. The dissemination of digital technologies associated with customers' intentions to adopt smart retail technology shapes satisfaction and intention to purchase products and services by use of mobile payment apps.

Adoption of Internet-enabled consumer devices in mobile shopping behavior and attitudes associated with the ensuing harnessing of information technologies have resulted in the rise of data-driven systems furthered by the cutting-edge developments and mobile shopping apps users' expectations of groundbreaking devices.

The consumer purchase decision-making process in mobile app-based marketing configures consumers' expectations and demands as regards mobile retailing adoption by continuing acceptance of mobile shopping apps and payment services. Mobile shopping platform features and user technological readiness are developed on perceived risk and trust consequences. Consumer behavioral intention and adoption intention in relation to mobile shopping apps/websites involve consumer engagement and willingness to adopt mobile commerce apps.

Consumer perceived value and motivation, online convenience, continuance intention, and impulse buying behavior shape mobile commerce adoption and effectiveness. Mobile commerce apps and mobile payment tools influence users' attitudes and behaviors in terms of satisfaction, reliance, and loyalty, configuring consumer experience and innovativeness, acceptance and adoption intention, perceived risk and trust, and technological expertise. Behavioral intention to leverage mobile technologies impacts the technology acceptance of online shopping services as regards perceived quality, reliability, and performance. The efficiency of the mobile commerce systems and apps articulate shopping behavior patterns, customer engagement, and usage intention.

Limitations, implications, and further directions of research

By analyzing only articles published in journals indexed in the Web of Science, Scopus, and ProQuest databases between 2018 and 2021, relevant sources on technological adoption of mobile commerce apps may have been omitted. Limitations of this research comprise particular kinds of publications (original empirical research and review articles) discounting others (conference proceedings articles, books, and editorial materials). The scope of our study also does not move forward the inspection of intricate connections between Internet-enabled consumer devices and mobile payment services.

Subsequent analyses should develop on consumer behaviors, attitudes, and intentions to adopt mobile shopping so as to configure consumer motivational factors in purchasing products and services by use of mobile shopping apps. Future research should thus investigate how the swift increase in smartphone adoption and technological breakthroughs as regards mobile devices and artificial intelligence decision support may drive mobile shopping addiction in live e-commerce by optimized customer immersion experience. Subsequent attention should be directed to how technological-based consumer adoption of mobile shopping apps throughout social commerce can improve the payment for products and services across digital retail operations.

References

- Anshari, M., Arine, M. A., Nurhidayah, N., Aziyah, H., & Salleh, M. H. A. (2021). Factors influencing individual in adopting eWallet. *Journal of Financial Services Marketing*, 26, 10–23. doi: 10.1057/s41264-020-00079-5.
- Bailey, A. A., Pentina, I., Mishra, A. S., & Mimoun, M. S. B. (2020). Exploring factors influencing US millennial consumers' use of tap-and-go payment technology. *International Review of Retail, Distribution and Consumer Research*, 30, 143–163. doi: 10.1080/09593969.2019.1667854.
- Barbu, C. M., Florea, D. L., Dabija, D. C., & Barbu, M. C. R. (2021). Customer experience in fintech. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1415–1433. doi: 10.3390/jtaer16050080.
- Bekken, G. (2019). The algorithmic governance of data driven-processing employment: evidence-based management practices, artificial intelligence recruiting software, and automated hiring decisions. *Psychosociological Issues in Human Resource Management*, 7(2), 25–30. doi: 10.22381/PIHRM7220194.
- Bhattacharya, S., & Anand, V. (2019). What makes the Indian youths to engage with online retail brands: An empirical study. *Global Business Review*. Advance online publication. doi: 10.1177/0972150918822106.

- Boardman, R., & McCormick, H. (2018). Shopping channel preference and usage motivations: exploring differences amongst a 50-year age span. *Journal of Fashion Marketing and Management*, 22, 270–284. doi: 10.1108/JFMM-04-2017-0036.
- Brown, M. (2021). Artificial intelligence data-driven Internet of Things systems, real-time process monitoring, and sustainable industrial value creation in smart networked factories. *Journal of Self-Governance and Management Economics*, 9(2), 21–31. doi: 10.22381/jsme9220212.
- Brusch, I., & Rappel, N. (2020). Exploring the acceptance of instant shopping – an empirical analysis of the determinants of user intention. *Journal of Retailing and Consumer Services*, 54, 101936. doi: 10.1016/j.jretconser.2019.101936.
- Camoiras-Rodriguez, Z., & Varela, C. (2020). The influence of consumer personality traits on mobile shopping intention. *Spanish Journal of Marketing – ESIC*, 24, 331–353. doi: 10.1108/SJME-02-2020-0029.
- Campbell, E., Novak, A., & Novak Sedlackova, A. (2021). Algorithm-driven sensing devices and connected vehicle data in smart transportation networks. *Contemporary Readings in Law and Social Justice*, 13(1), 91–100. doi: 10.22381/CRLSJ13120219.
- Chen, H.-J. (2018). What drives consumers' mobile shopping? 4Ps or shopping preferences? *Asia Pacific Journal of Marketing and Logistics*, 30, 797–815. doi: 10.1108/APJML-08-2017-0167.
- Cheong, H. J., Mohammed-Baksh, S., & Wright, L. T. (2019). U.S. consumer m-commerce involvement: using in-depth interviews to propose an acceptance model of shopping apps-based m-commerce. *Cogent Business & Management*, 6, 1. doi: 10.1080/23311975.2019.1674077.
- Chi, V. T. M., Paramita, W., & Quan, T. H. M. (2021). Does customer experience always benefit company? Examining customers' epistemic motivation and interaction with service contexts. *Australasian Marketing Journal*. Advance online publication. doi: 10.1177/1839334921998867.
- Cho, E., & Son, J. (2019). The effect of social connectedness on consumer adoption of social commerce in apparel shopping. *Fashion and Textiles*, 6, 14. doi: 10.1186/s40691-019-0171-7.
- Chopdar, P. K., Korfiatis, N., Sivakumar, V. J., & Lytras, M. D. (2018). Mobile shopping apps adoption and perceived risks: a cross-country perspective utilizing the unified theory of acceptance and use of technology. *Computers in Human Behavior*, 86, 109–128. doi: 10.1016/j.chb.2018.04.017.
- Chopdar, P. K., & Sivakumar, V. J. (2019). Understanding continuance usage of mobile shopping applications in India: the role of espoused cultural values and perceived risk. *Behaviour & Information Technology*, 38, 42–64. doi: 10.1080/0144929X.2018.1513563.
- Chopdar, P. K., & Balakrishnan, J. (2020). Consumers response towards mobile commerce applications: S-O-R approach. *International Journal of Information Management*, 53, 102106. doi: 10.1016/j.ijinfomgt.2020.102106.

- Cooper, H., Poliak, M., & Konecny, V. (2021). Computationally networked urbanism and data-driven planning technologies in smart and environmentally sustainable cities. *Geopolitics, History, and International Relations*, 13(1), 20–30. doi: 10.22381/GHIR13120212.
- Dabija, D. C., & Lung, L. (2019). Millennials versus Gen Z: online shopping behaviour in an emerging market. In S. A. Văduva, I. S. Fotea, L. P. Văduva, & R. Wilt (Eds.). *Applied ethics for entrepreneurial success: recommendations for the developing world. 2018 Griffiths School of Management Annual Conference on Business, Entrepreneurship and Ethics (GMSAC)*. Cham: Springer International. 1–18. doi: https://doi.org/10.1007/978-3-030-17215-2_1.
- Dahabiyeh, L., Najjar, M. S., & Agrawal, D. (2020). The effect of risk levels on technology adoption decision: the case of online games. *Information Technology & People*, 33, 1445–1464. doi: 10.1108/ITP-09-2019-0455.
- Dasgupta, S., & Gupta, B. (2019). Espoused organizational culture values as antecedents of internet technology adoption in an emerging economy. *Information & Management*, 56, 103142. doi: 10.1016/j.im.2019.01.004.
- Davies, S. (2020). Interconnected sensor networks and decision-making self-driving car control algorithms in smart sustainable urbanism. *Contemporary Readings in Law and Social Justice*, 12(2), 88–96. doi: 10.22381/CRLSJ122202010.
- Dewi, C. K., Mohaidin, Z., & Murshid, M. A. (2020). Determinants of online purchase intention: a PLS-SEM approach: evidence from Indonesia. *Journal of Asia Business Studies*, 14, 281–306. doi: 10.1108/JABS-03-2019-0086.
- Dhiman, N., Arora, N., Dogra, N., & Gupta, A. (2020). Consumer adoption of smartphone fitness apps: an extended UTAUT2 perspective. *Journal of Indian Business Research*, 12, 363–388. doi: 10.1108/JIBR-05-2018-0158.
- Eskridge, M. (2019). Falling in love with algorithmic compatibility in a digital dating landscape: sexually affective data, networked intimacy, and online gendered identity constructions. *Journal of Research in Gender Studies*, 9(2), 92–98. doi: 10.22381/JRGS92201910.
- Fazal-e-Hasan, S. M., Amrollahi, A., Mortimer, G., Adapa, S., & Balaji, M. S. (2021). A multi-method approach to examining consumer intentions to use smart retail technology. *Computers in Human Behavior*, 117, 106622. doi: 10.1016/j.chb.2020.106622.
- Geamănu, M. (2011a). Determination of economic efficiency in terms of risk an uncertainty. *Analele Universității Tibiscus, Seria Stiințe Economice*, 17, 1085–1089.
- Geamănu, M. (2011b). Economic efficiency and profitability. *Studia Universitatis „Vasile Goldiș” Arad. Economics Series*, 21(2), 116–119.
- Ghazali, E. M., Mutum, D. S., Chong, J. H., & Nguyen, B. (2018). Do consumers want mobile commerce? A closer look at M-shopping and technology adoption in Malaysia. *Asia Pacific Journal of Marketing and Logistics*, 30, 1064–1086. doi: 10.1108/APJML-05-2017-0093

- Gibson, P. (2021). Internet of Things sensing infrastructures and urban big data analytics in smart sustainable city governance and management. *Geopolitics, History, and International Relations*, 13(1), 42–52. doi: 10.22381/GHIR13120214.
- Ginevicius, R., Kliestik, T., Stasiukynas, A., & Suhajda, K. (2020). The impact of national economic development on the shadow economy. *Journal of Competitiveness*, 12(3), 39–55. doi: 10.7441/joc.2020.04.03.
- Gong, X., Liu, Z., Zheng, X., & Wu, T. (2018). Why are experienced users of WeChat likely to continue using the app? *Asia Pacific Journal of Marketing and Logistics*, 30, 1013–1039. doi: 10.1108/APJML-10-2017-0246.
- Graf-Vlachy, L., Buhtz, K., & König, A. (2018). Social influence in technology adoption: taking stock and moving forward. *Management Review Quarterly*, 68, 37–76. doi: 10.1007/s11301-017-0133-3.
- Grant, E. (2021). Big data-driven innovation, deep learning-assisted smart process planning, and product decision-making information systems in sustainable Industry 4.0. *Economics, Management, and Financial Markets*, 16(1), 9–19. doi: 10.22381/emfm16120211.
- Gray-Hawkins, M., & Lăzăroiu, G. (2020). Industrial artificial intelligence, sustainable product lifecycle management, and Internet of Things sensing networks in cyber-physical smart manufacturing systems. *Journal of Self-Governance and Management Economics*, 8(4), 19–28. doi: 10.22381/JSM E8420202.
- Groß, M. (2018). Mobile shopping loyalty: the salient moderating role of normative and functional compatibility beliefs. *Technology in Society*, 55, 146–159. doi: 10.1016/j.techsoc.2018.07.005.
- Groß, M., & Sohn, S. (2021). Understanding the consumer acceptance of mobile shopping: the role of consumer shopping orientations and mobile shopping touchpoints. *International Review of Retail, Distribution and Consumer Research*, 31, 36–58. doi: 10.1080/09593969.2020.1852096.
- Ho, R. C., & Rezaei, S. (2018). Social media communication and consumers decisions: analysis of the antecedents for intended apps purchase. *Journal of Relationship Marketing*, 17, 204–228. doi: 10.1080/15332667.2018.1492322.
- Johnson, A. (2020). Medical wearables and biosensor technologies as tools of Internet of Things-based health monitoring systems. *American Journal of Medical Research*, 7(1), 7–13. doi: 10.22381/AJMR7120201.
- Jung, J.-H., Kwon, E., & Kim, D. H. (2020). Mobile payment service usage: U.S. consumers' motivations and intentions. *Computers in Human Behavior Reports*, 1, 100008. doi: 10.1016/j.chbr.2020.100008.
- Kalinić, Z., Liébana-Cabanillas, F. J., Muñoz-Leiva, F., & Marinković, V. (2020). The moderating impact of gender on the acceptance of peer-to-peer mobile payment systems. *International Journal of Bank Marketing*, 38, 138–158. doi: 10.1108/IJBM-01-2019-0012.

- Kang, J.-W., & Namkung, Y. (2019). The information quality and source credibility matter in customers' evaluation toward food O2O commerce. *International Journal of Hospitality Management*, 78, 189–198. doi: 10.1016/j.ijhm.2018.10.011.
- Kaur, P., Dhir, A., Singh, N., Sahu, G., & Almotairi, M. (2020). An innovation resistance theory perspective on mobile payment solutions. *Journal of Retailing and Consumer Services*, 55, 102059. doi: 10.1016/j.jretconser.2020.102059.
- Kim, J. J., Kim, I., & Hwang, J. (2021). A change of perceived innovativeness for contactless food delivery services using drones after the outbreak of COVID-19. *International Journal of Hospitality Management*, 93, 102758. doi: 10.1016/j.ijhm.2020.102758.
- Kliestik, T., Belas, J., Valaskova, K., Nica, E., & Durana, P. (2021). Earnings management in V4 countries: the evidence of earnings smoothing and inflating. *Economic Research-Ekonomska Istraživanja*, 34(1), 1452–1470. doi: 10.1080/1331677X.2020.1831944.
- Konecny, V., Barnett, C., & Poliak, M. (2021). Sensing and computing technologies, intelligent vehicular networks, and big data-driven algorithmic decision-making in smart sustainable urbanism. *Contemporary Readings in Law and Social Justice*, 13(1), 30–39. doi: 10.22381/CRLSJ13120213.
- Kovacova, M., & Lewis, E. (2021). Smart factory performance, cognitive automation, and industrial big data analytics in sustainable manufacturing Internet of Things. *Journal of Self-Governance and Management Economics*, 9(3), 9–21. doi: 10.22381/jsme9320211.
- Kovacova, M., & Lăzăroiu, G. (2021). Sustainable organizational performance, cyber-physical production networks, and deep learning-assisted smart process planning in Industry 4.0-based manufacturing systems. *Economics, Management, and Financial Markets*, 16(3), 41–54. doi: 10.22381/emfm16320212.
- Lăzăroiu, G., Machová, V., & Kucera, J. (2020). Connected and autonomous vehicle mobility: socially disruptive technologies, networked transport systems, and big data algorithmic analytics. *Contemporary Readings in Law and Social Justice*, 12(2), 61–69. doi: 10.22381/CRLSJ12220207.
- Lăzăroiu, G., & Harrison, A. (2021). Internet of Things sensing infrastructures and data-driven planning technologies in smart sustainable city governance and management. *Geopolitics, History, and International Relations*, 13(2), 23–36. doi: 10.22381/GHIR13220212.
- Lăzăroiu, G., Kliestik, T., & Novak, A. (2021). Internet of Things smart devices, industrial artificial intelligence, and real-time sensor networks in sustainable cyber-physical production systems. *Journal of Self-Governance and Management Economics*, 9(1), 20–30. doi: 10.22381/jsme9120212.
- Lewis, S. (2020). Wearable Internet of Things healthcare systems: smart biomedical sensors, wireless connected devices, and real-time patient monitoring. *American Journal of Medical Research*, 7(1), 55–60. doi: 10.22381/AJMR7120208.

- Lewis, E. (2021). Smart city software systems and Internet of Things sensors in sustainable urban governance networks. *Geopolitics, History, and International Relations*, 13(1), 9–19. doi: 10.22381/GHIR13120211.
- Li, C.-Y., & Ku, Y.-C. (2018). The power of a thumbs-up: will e-commerce switch to social commerce? *Information & Management*, 55, 340–357. doi: 10.1016/j.im.2017.09.001.
- Li, C.-Y. (2019). How social commerce constructs influence customers' social shopping intention? An empirical study of a social commerce website. *Technological Forecasting and Social Change*, 144, 282–294. doi: 10.1016/j.techfore.2017.11.026.
- Liébana-Cabanillas, F., Japutra, A., Molinillo, S., Singh, N., & Sinha, N. (2020). Assessment of mobile technology use in the emerging market: analyzing intention to use m-payment services in India. *Telecommunications Policy*, 44, 102009. doi: 10.1016/j.telpol.2020.102009.
- Liu, Y., Li, Q., Edu, T., Jozsa, L., & Negricea, I. C. (2020). Mobile shopping platform characteristics as consumer behavior determinants. *Asia Pacific Journal of Marketing and Logistics*, 32, 1565–1587. doi: 10.1108/APJML-05-2019-0308.
- Loh, X.-M., Lee, V.-H., Tan, G. W.-H., Ooi, K.-B., & Dwivedi, Y. K. (2021). Switching from cash to mobile payment: what's the hold-up? *Internet Research*, 31, 376–399. doi: 10.1108/INTR-04-2020-0175.
- Lyons, N., & Lăzăroiu, G. (2020). Addressing the COVID-19 crisis by harnessing Internet of Things sensors and machine learning algorithms in data-driven smart sustainable cities. *Geopolitics, History, and International Relations*, 12(2), 65–71. doi: 10.22381/GHIR12220209.
- Madan, K., & Yadav, R. (2018). Understanding and predicting antecedents of mobile shopping adoption: a developing country perspective. *Asia Pacific Journal of Marketing and Logistics*, 30, 139–162. doi: 10.1108/APJML-02-2017-0023.
- Mamun, A. A., Nawi, N. B. C., Nasir, N. A. B. M., & Fazal, S. A. (2020). Social media and consumer engagement: the case of Malaysian student entrepreneurs. *Journal of Asia-Pacific Business*, 21, 185–206. doi: 10.1080/10599231.2020.1783972
- Marriott, H. R., & Williams, M. D. (2018). Exploring consumers perceived risk and trust for mobile shopping: a theoretical framework and empirical study. *Journal of Retailing and Consumer Services*, 42, 133–146. doi: 10.1016/j.jretconser.2018.01.017.
- McLean, G. (2018). Examining the determinants and outcomes of mobile app engagement – a longitudinal perspective. *Computers in Human Behavior*, 84, 392–403. doi: 10.1016/j.chb.2018.03.015.
- McLean, G., Osei-Frimpong, K., Al-Nabhani, K., & Marriott, H. (2020). Examining consumer attitudes towards retailers' m-commerce mobile applications – an initial adoption vs. continuous use perspective. *Journal of Business Research*, 106, 139–157. doi: 10.1016/j.jbusres.2019.08.032.

- Nel, J., & Boshoff, C. (2019). Online customers' habit-inertia nexus as a conditional effect of mobile-service experience: a moderated-mediation and moderated serial-mediation investigation of mobile-service use resistance. *Journal of Retailing and Consumer Services*, 47, 282–292. doi: 10.1016/j.jretconser.2018.12.003.
- Nel, J., & Boshoff, C. (2020). Status quo bias and shoppers' mobile website purchasing resistance. *European Journal of Marketing*, 54, 1433–1466. doi: 10.1108/EJM-02-2018-0144.
- Nica, E., Miklencicova, R., & Kicova, E. (2019). Artificial intelligence-supported workplace decisions: big data algorithmic analytics, sensory and tracking technologies, and metabolism monitors. *Psychosociological Issues in Human Resource Management*, 7(2), 31–36. doi: 10.22381/PIHRM7220195.
- Nica, E., Stan, C. I., Luțan (Petre), A. G., & Oașa (Geambazi), R.-Ș. (2021). Internet of Things-based real-time production logistics, sustainable industrial value creation, and artificial intelligence-driven big data analytics in cyber-physical smart manufacturing systems. *Economics, Management, and Financial Markets*, 16(1), 52–62. doi: 10.22381/emfm16120215.
- Nica, E., & Stehel, V. (2021). Internet of Things sensing networks, artificial intelligence-based decision-making algorithms, and real-time process monitoring in sustainable Industry 4.0. *Journal of Self-Governance and Management Economics*, 9(3), 35–47. doi: 10.22381/jsme9320213.
- Nica, E. (2021). Urban big data analytics and sustainable governance networks in integrated smart city planning and management. *Geopolitics, History, and International Relations*, 13(2), 93–106. doi: 10.22381/GHIR13220217.
- Novak, A., Bennett, D., & Kliestik, T. (2021). Product decision-making information systems, real-time sensor networks, and artificial intelligence-driven big data analytics in sustainable Industry 4.0. *Economics, Management, and Financial Markets*, 16(2), 62–72. doi: 10.22381/emfm16220213.
- Pandey, S., & Chawla, D. (2019). Engaging m-commerce adopters in India: exploring the two ends of the adoption continuum across four m-commerce categories. *Journal of Enterprise Information Management*, 32, 191–210. doi: 10.1108/JEIM-06-2018-0109.
- Pantano, E., & Vannucci, V. (2019). Who is innovating? An exploratory research of digital technologies diffusion in retail industry. *Journal of Retailing and Consumer Services*, 49, 297–304. doi: 10.1016/j.jretconser.2019.01.019.
- Park, J., Ahn, J., Thavisay, T., & Ren, T. (2019). Examining the role of anxiety and social influence in multi-benefits of mobile payment service. *Journal of Retailing and Consumer Services*, 47, 140–149. doi: 10.1016/j.jretconser.2018.11.015.
- Patel, V., Das, K., Chatterjee, R., & Shukla, Y. (2020). Does the interface quality of mobile shopping apps affect purchase intention? An empirical study. *Australasian Marketing Journal (AMJ)*, 28, 300–309. doi: 10.1016/j.ausmj.2020.08.004.

- Patil, P., Tamilmani, K., Rana, N. P., & Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management*, 54, 102144. doi: 10.1016/j.ijinfomgt.2020.102144.
- Phong, N. D., Khoi, N. H., & Nhat-Hanh Le, A. (2018). Factors affecting mobile shopping: a Vietnamese perspective. *Journal of Asian Business and Economic Studies*, 25, 186–205. doi: 10.1108/JABES-05-2018-0012.
- Robinson, R. (2020). Connected and autonomous transport systems: deep learning-based sensing technologies, data-driven mobilities, and intelligent vehicular networks. *Contemporary Readings in Law and Social Justice*, 12(2), 52–60. doi: 10.22381/CRLSJ12220206.
- Rodríguez-Torrico, P., San-Martín, S., & San José Cabezedo, R. (2020). The role of omnichannel tendency in digital information processing. *Online Information Review*, 44, 1347–1367. doi: 10.1108/OIR-08-2019-0272.
- Roy, S. K., Balaji, M. S., & Nguyen, B. (2020). Consumer-computer interaction and in-store smart technology (IST) in the retail industry: the role of motivation, opportunity, and ability. *Journal of Marketing Management*, 36, 299–333. doi: 10.1080/0267257X.2020.1736130.
- Sabir, S. S. (2020). Does product design stimulate customer satisfaction? Mediating role of affect. *Asia Pacific Journal of Marketing and Logistics*, 32, 1255–1268. doi: 10.1108/APJML-03-2019-0216.
- Saha, S. K., Duarte, P., Silva, S. C., & Zhuang, G. (2021). Supporting sustainability by promoting online purchase through enhancement of online convenience. *Environment, Development and Sustainability*, 23, 7251–7272. doi: 10.1007/s10668-020-00915-7.
- Sarkar, S., Khare, A., & Sadachar, A. (2020). Influence of consumer decision-making styles on use of mobile shopping applications. *Benchmarking: An International Journal*, 27, 1–20. doi: 10.1108/BIJ-07-2018-0208.
- Seeger, M. K., Kemper, J., & Brettel, M. (2019). How information processing and mobile channel choice influence product returns: an empirical analysis. *Psychology and Marketing*, 36, 198–213. doi: 10.1002/mar.21170.
- Sharma, S. K., Mangla, S. K., Luthra, S., & Al-Salti, Z. (2018). Mobile wallet inhibitors: developing a comprehensive theory using an integrated model. *Journal of Retailing and Consumer Services*, 45, 52–63. doi: 10.1016/j.jretconser.2018.08.008.
- Singh, N., Sinha, N., & Liébana-Cabanillas, F. J. (2020). Determining factors in the adoption and recommendation of mobile wallet services in India: analysis of the effect of innovativeness, stress to use and social influence. *International Journal of Information Management*, 50, 191–205. doi: 10.1016/j.ijinfomgt.2019.05.022.
- Sion, G. (2019). Commodifying intimate relationships through geosocial networking mobile apps: data-driven dating, sexual sociality, and online body objectification. *Journal of Research in Gender Studies*, 9(2), 78–84. doi: 10.22381/JRGS9220198.

- Siyal, A. W., Hongzhuan, C., & Gang, C. (2021). From consumer satisfaction to recommendation of mobile app-based services: an overview of mobile taxi booking Apps. *SAGE Open*. Advance online publication. doi: 10.1177/21582440211004179.
- Sohn, S., & Groß, M. (2020). Understanding the inhibitors to consumer mobile purchasing intentions. *Journal of Retailing and Consumer Services*, 55, 102129. doi: 10.1016/j.jretconser.2020.102129.
- Stefko, R., Bacík, R., Fedorko, R., Olearova, M., & Rigelsky, M. (2019). Analysis of consumer preferences related to the use of digital devices in the e-commerce dimension. *Entrepreneurship and Sustainability Issues*, 7(1), 25–33. doi: 10.9770/jesi.2019.7.1(2).
- Stehel, V., Bradley, C., Suler, P., & Bilan, S. (2021). Cyber-physical system-based real-time monitoring, industrial big data analytics, and smart factory performance in sustainable manufacturing Internet of Things. *Economics, Management, and Financial Markets*, 16(1), 42–51. doi: 10.22381/emfm16120214.
- Talwar, S., Talwar, M., Kaur, P., & Dhir, A. (2020a). Consumers' resistance to digital innovations: a systematic review and framework development. *Australasian Marketing Journal (AMJ)*, 28, 286–299. doi: 10.1016/j.ausmj.2020.06.014.
- Talwar, M., Talwar, S., Kaur, P., Islam, A. K. M. N., & Dhir, A. (2020b). Positive and negative word of mouth (WOM) are not necessarily opposites: a reappraisal using the dual factor theory. *Journal of Retailing and Consumer Services*. Advance online publication. doi: 10.1016/j.jretconser.2020.102396.
- Tarhini, A., Alalwan, A. A., Shammout, A. B., & Al-Badi, A. (2019). An analysis of the factors affecting mobile commerce adoption in developing countries: Towards an integrated model. *Review of International Business and Strategy*, 29, 157–179. doi: 10.1108/RIBS-10-2018-0092.
- Throne, O., & Lăzăroiu, G. (2020). Internet of Things-enabled sustainability, industrial big data analytics, and deep learning-assisted smart process planning in cyber-physical manufacturing systems. *Economics, Management, and Financial Markets*, 15(4), 49–58. doi: 10.22381/EMFM15420205.
- Touzani, M., Charfi, A. A., Boistel, P., & Niort, M.-C. (2018). Connecto ergo sum! an exploratory study of the motivations behind the usage of connected objects. *Information & Management*, 55, 472–481. doi: 10.1016/j.im.2017.11.002.
- Tuanrat, Y., Papagiannidis, S., & Alamanos, E. (2021). A conceptual framework of the antecedents of customer journey satisfaction in omnichannel retailing. *Journal of Retailing and Consumer Services*, 61, 102550. doi: 10.1016/j.jretconser.2021.102550.
- Tyrväinen, O., & Karjaluoto, H. (2019). A systematic literature review and analysis of mobile retailing adoption. *Journal of Internet Commerce*, 18, 221–247. doi: 10.1080/15332861.2019.1595364.

- Vahdat, A., Alizadeh, A., Quach, S., & Hamelin, N. (2020). Would you like to shop via mobile app technology? The technology acceptance model, social factors and purchase intention. *Australasian Marketing Journal (AMJ)*. Advance online publication. doi: 10.1016/j.ausmj.2020.01.002.
- Valaskova, K., Ward, P., & Svabova, L. (2021a). Deep learning-assisted smart process planning, cognitive automation, and industrial big data analytics in sustainable cyber-physical production systems. *Journal of Self-Governance and Management Economics*, 9(2), 9–20. doi: 10.22381/jsme9220211.
- Valaskova, K., Durana, P., & Adamko, P. (2021b). Changes in consumers' purchase patterns as a consequence of the COVID-19 pandemic. *Mathematics*, 9(15), 1788. doi: 10.3390/math9151788.
- Verkijika, S. F. (2020). An effective response model for understanding the acceptance of mobile payment systems. *Electronic Commerce Research and Applications*, 39, 100905. doi: 10.1016/j.elerap.2019.100905.
- Wells, R., Suler, P., & Vochozka, M. (2021). Networked driverless technologies, autonomous vehicle algorithms, and transportation analytics in smart urban mobility systems. *Contemporary Readings in Law and Social Justice*, 13(1), 60–70. doi: 10.22381/CRLSJ13120216.
- Zafar, A. U., Shen, J., Shahzad, M., & Islam, T. (2021). Relation of impulsive urges and sustainable purchase decisions in the personalized environment of social media. *Sustainable Production and Consumption*, 25, 591–603. doi: 10.1016/j.spc.2020.11.020.

Annex

Table 1. Topics and types of paper identified and selected

Topic	Identified	Selected
mobile shopping app	72	15
mobile commerce platform	68	13
mobile payment service	42	9
Internet-enabled consumer device	39	8
consumer technological adoption	43	9
mobile shopping behavior	66	12
Type of paper		
original research	280	64
review	13	2
conference proceedings	29	0
book	2	0
editorial	6	0

Note: Some topics overlap.

Table 2. Summary of evidence in relation to focus topics and descriptive outcomes (research results)

Consumer adoption of mobile shopping apps is articulated by: consumer use behavior in relation to mobile payment services and apps; consumer behaviors, attitudes, and intentions to adopt mobile shopping; and consumer motivational factors in purchasing products and services by use of mobile shopping apps – all of them configuring users' behavioral intention in relation to mobile commerce adoption.	Anshari <i>et al.</i> , 2021; Dewi <i>et al.</i> , 2020; Jung <i>et al.</i> , 2020; Madan & Yadav, 2018; Saha <i>et al.</i> , 2021; Sohn & Groß, 2020; Touzani <i>et al.</i> , 2018
Mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones.	Cheong <i>et al.</i> , 2019; Cho & Son, 2019; Li & Ku, 2018; Mamun <i>et al.</i> , 2020; Talwar <i>et al.</i> , 2020; Tarhini <i>et al.</i> , 2019
The swift increase in smartphone adoption and technological breakthroughs as regards mobile devices facilitate the payment for products and services.	Bailey <i>et al.</i> , 2020; Kalinić <i>et al.</i> , 2020; Kaur <i>et al.</i> , 2020; Park <i>et al.</i> , 2019; Sharma <i>et al.</i> , 2018; Singh <i>et al.</i> , 2020; Verkijika, 2020
Technological-based consumer adoption of mobile shopping throughout social commerce harnesses social networking capabilities.	Chi <i>et al.</i> , 2021; Kang & Namkung, 2019; Li, 2019; Patil <i>et al.</i> , 2020; Talwar <i>et al.</i> , 2020; Zafar <i>et al.</i> , 2021
Cutting-edge technological developments associated with customer behavior in relation to mobile commerce applications have resulted in the rise of data-driven systems.	Chopdar & Balakrishnan, 2020; Liu <i>et al.</i> , 2020; Phong <i>et al.</i> , 2018; Rodríguez-Torrice <i>et al.</i> , 2020; Seeger <i>et al.</i> , 2019
The dissemination of digital technologies associated with customers' intentions to adopt smart retail technology is furthered by the cutting-edge developments and mobile shopping apps users' expectations of groundbreaking devices.	Brusch & Rappel, 2020; Fazal-e-Hasan <i>et al.</i> , 2021; Ho & Rezaei, 2018; Nel & Boshoff, 2019; Pantano & Vannucci, 2019; Tyrväinen & Karjaluo, 2019

Table 2. Summary of evidence in relation to focus topics and descriptive outcomes (research results)

Shopping app-based mobile commerce acceptance associated with the ensuing harnessing of information technologies encompasses factors that are pivotal in the consumers' decision-making to shift from cash to mobile payment, that shape customer use of in-store smart technology, that influence the adoption of digital products and services, that drive user intentions and consumer behavior, that determine consumers' system adoption and satisfaction in accessing mobile shopping apps/websites, that impact users' online buying intention, that affect mobile shopping adoption intention, and that shape behavioral intention and usage of mobile payment services and apps.	Bhattacharya & Anand, 2019; Camoiras-Rodriguez & Varela, 2020; Groß, 2018; Loh <i>et al.</i> , 2021; Patel <i>et al.</i> , 2020; Sabir <i>et al.</i> , 2020; Siyal <i>et al.</i> , 2021
Adoption of Internet-enabled consumer devices in mobile shopping behavior and attitudes shapes satisfaction and intention to purchase products and services by use of mobile payment apps.	Boardman & McCormick, 2018; Dasgupta & Gupta, 2019; Liébana-Cabanillas <i>et al.</i> , 2020; McLean <i>et al.</i> , 2020; Nel & Boshoff, 2020; Tueanrat <i>et al.</i> , 2021
Mobile shopping platform features and user technological readiness configure consumers' expectations and demands as regards mobile retailing adoption by continuing acceptance of mobile shopping applications and payment services.	Ghazali <i>et al.</i> , 2018; Graf-Vlachy <i>et al.</i> , 2018; Groß & Sohn, 2021; Pandey & Chawla, 2019; Roy <i>et al.</i> , 2020
The consumer purchase decision-making process in mobile app-based marketing involves consumer engagement and willingness to adopt mobile commerce apps.	Dhiman <i>et al.</i> , 2020; Gong <i>et al.</i> , 2018; Kim <i>et al.</i> , 2021; McLean, 2018; Sarkar <i>et al.</i> , 2020
Consumer behavioral intention and adoption intention in relation to mobile shopping apps/websites are developed on perceived risk and trust consequences.	Chen, 2018; Chopdar <i>et al.</i> , 2018; Chopdar & Sivakumar, 2019; Dahabiyeh <i>et al.</i> , 2020; Marriott & Williams, 2018; Vahdat <i>et al.</i> , 2020

Table 3. Consumer use behavior in relation to mobile payment services and apps

The swift increase in smartphone adoption and technological breakthroughs as regards mobile devices facilitate the payment for products and services, in addition to money transfer between individuals. Affect and anticipated regret positively shape behavioral intentions in relation to mobile payments.	(Anshari <i>et al.</i> , 2021; Jung <i>et al.</i> , 2020; Talwar <i>et al.</i> , 2020; Throne & Lăzăroiu, 2020; Verkijika, 2020)
Mobile payment services are progressively adopted for enhancing the scale, output, and relative importance of mobile shopping apps. Convenience, satisfaction, and economic upsides positively influence attitudes, but experiential benefit brings about negative consequences.	(Bailey <i>et al.</i> , 2020; Kalinić <i>et al.</i> , 2020; Kaur <i>et al.</i> , 2020; Liébana-Cabanillas <i>et al.</i> , 2020; Loh <i>et al.</i> , 2021; Nica <i>et al.</i> , 2021; Park <i>et al.</i> , 2019; Patil <i>et al.</i> , 2020; Sharma <i>et al.</i> , 2018)
Technological-based consumer adoption of mobile shopping throughout social commerce harnesses social networking capabilities and encompasses characteristics that stimulate mobile shopping apps users to share personal experiences. Social commerce sites determine mobile shopping apps users' virtual experiences in addition to their intentions to buy products.	(Lăzăroiu <i>et al.</i> , 2021; Li, 2019; Saha <i>et al.</i> , 2021; Sohn & Groß, 2020; Tyrväinen & Karjaluoto, 2019)

Table 4. Consumer behaviors, attitudes, and intentions to adopt mobile shopping

User co-creation behavior, reaction, and experiential values constitute pivotal characteristics of customer journey contentment. The mobile Internet as a purchasing channel has surpassed the desktop device-based Internet, shaping shopping apps users' behavior.	(Chi <i>et al.</i> , 2021; Dahabiyeh <i>et al.</i> , 2020; Graf-Vlachy <i>et al.</i> , 2018; Gray-Hawkins & Lăzăroiu, 2020; Nel & Boshoff, 2019; Seeger <i>et al.</i> , 2019; Talwar <i>et al.</i> , 2020; Tueanrat <i>et al.</i> , 2021)
Positive attitudes in relation to mobile shopping apps lead to extensive purchasing frequency and loyalty towards the brand. Information quality and source credibility influence perceived convenience and ease of use that are both determinants of mobile shopping apps users' confidence, attitudes, and behavioral intentions.	(Kang & Namkung, 2019; Lyons & Lăzăroiu, 2020; McLean, 2018; McLean <i>et al.</i> , 2020; Singh <i>et al.</i> , 2020)
Attitudinal and behavioral patterns, habits, and motivations (e.g., perceived value, appealing characteristics, and psychological features) are instrumental in mobile shopping apps users' connectedness. Mobile shopping apps users tend to spend more as a result of the customized environment of social media.	(Cho & Son, 2019; Cooper <i>et al.</i> , 2021; Rodríguez-Torrico <i>et al.</i> , 2020; Touzani <i>et al.</i> , 2018; Vahdat <i>et al.</i> , 2020; Zafar <i>et al.</i> , 2021)
Users' behavioral intention in relation to mobile commerce adoption is considerably affected by information quality, hedonic motivation, habit, facilitating conditions, performance expectancy, service quality, confidence, and price value. Perceived ease of use, convenience, and behavioral control, in addition to attitudes, trust, and personal innovativeness shape user intentions in relation to mobile shopping adoption.	(Chopdar <i>et al.</i> , 2018; Chopdar & Sivakumar, 2019; Dhiman <i>et al.</i> , 2020; Ghazali <i>et al.</i> , 2018; Ho & Rezaei, 2018; Kim <i>et al.</i> , 2021; Lăzăroiu <i>et al.</i> , 2020; Madan & Yadav, 2018; Tarhini <i>et al.</i> , 2019)

Table 5. Consumer motivational factors in purchasing products and services by use of mobile shopping apps

Cutting-edge technological developments associated with customer behavior in relation to mobile commerce applications have resulted in the rise of data-driven systems across brick-and-mortar stores. Online shoppers incline towards buying products by employing the retailer desktop website, and not the mobile website on a smartphone.	(Chopdar & Balakrishnan, 2020; Groß & Sohn, 2021; Konecny <i>et al.</i> , 2021; Nel & Boshoff, 2020; Roy <i>et al.</i> , 2020)
Mobile social apps extend throughout consumer attitudes and behaviors by the widespread adoption of smartphones. Trust is instrumental in shaping the continuance intention of experienced consumers, while clarifying that continuance intention drivers are <u>dissimilar among consumers having varying experiences.</u>	(Brusch & Rappel, 2020; Fazal-e-Hasan <i>et al.</i> , 2021; Gong <i>et al.</i> , 2018; Mamun <i>et al.</i> , 2020; Pandey & Chawla, 2019; Patel <i>et al.</i> , 2020)
The dissemination of digital technologies associated with customers' intentions to adopt smart retail technology is swiftly booming in the physical stores because of the cutting-edge developments and mobile shopping apps users' expectations of groundbreaking devices. Shopping enjoyment is associated with usefulness and value consciousness is associated with both usefulness and ease of use.	(Camoiras-Rodriguez & Varela, 2020; Cheong <i>et al.</i> , 2019; Dasgupta & Gupta, 2019; Liu <i>et al.</i> , 2020; Pantano & Vannucci, 2019; Sabir, 2020; Sarkar <i>et al.</i> , 2020; Siyal <i>et al.</i> , 2021)

Table 5. Consumer motivational factors in purchasing products and services by use of mobile shopping apps

<p>The fashionableness of online social networks has influenced the shopping decisions of mobile shopping apps users on social commerce sites. The online consumer shopping criteria have been reconfigured throughout the digitized marketing environment towards a fashionable and dynamic market-oriented lifestyle, assisting online marketers in providing superior customer value with enhanced service quality to ensure mobile shopping apps user retention.</p>	<p>(Bhattacharya & Anand, 2019; Dewi <i>et al.</i>, 2020; Li & Ku, 2018; Marriott & Williams, 2018; Phong <i>et al.</i>, 2018)</p>
<p>The marketing determinants influencing user mobile shopping need elucidation. The mobile shopping loyalty of users having a reduced level of compatibility belief is essentially driven by consumer perception of vendor trust.</p>	<p>(Boardman & McCormick, 2018; Chen, 2018; Groß, 2018)</p>

Figure 1. PRISMA flow diagram describing the search results and screening

