Study of the Influence of Augmented Reality Toward Consumer's Satisfaction and Repurchase Intention

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Abstract. According to previous literature, the service of online retailers is limited as consumers cannot evaluate the goods, resulting in a poor online experience. With the technology's advancement, businesses can improve their products' presentation through augmented reality (AR). However, the use of AR in m-commerce is still a largely unexplored topic that requires significant improvement. The study aims to fill the gap by understanding how AR influence customer satisfaction (SAT) and repurchase intention (RPI) through an integrated model Unified Theory Acceptance and Use of Technology (UTAUT) consisted of performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC), social influence (SI), and hedonic motivation (HM), driving the response of SAT and RPI. 431 respondents participated in the questionnaire, consisting of 254 novice consumers, then analysed using structural equation modelling based on SmartPLS 3.3.3. This study found that PE, FC, SI, and HM significantly influence consumer SAT on m-commerce. However, this study failed to demonstrate EE as an essential construct to explain SAT. Further, SAT was found to influence the RPI. This study adds to the literature by examining the influence of AR on m-commerce SAT and RPI using the UTAUT model. Moreover, the m-commerce providers should provide their apps with AR features to help consumers do online shopping more effectively, including a better user interface and user experience.

Keywords: Augmented Reality · M-Commerce · UTAUT · Satisfaction · Repurchase Intention

1 Introduction

Technology has transformed the retail sector over the decades in many ways, most notably since the development of e-commerce. In Indonesia, in 2020, the value of e-commerce has increased to US$ 44 billion, increased 11%, and is expected to rise to 23% in 2025 [1]. Moreover, 72.9% of the global shares of m-commerce amounted to ¾ of the total e-commerce revenue.

Despite the convenience of online shopping, the service of online retailers is limited because consumers cannot evaluate the goods, resulting in a poor online experience [2].

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With the advancement of technology, businesses can improve their products' presentation and consumer shopping experience through augmented reality (AR) [3].

AR is supposed to reduce dissatisfaction by assuring that the goods purchased are identical as shown online [4]. Indonesia became second lowest country in South-East Asian with online satisfaction (SAT) [5]. These results might be because of the difference between the product they see on the internet and the product they receive. The company needs to pay more attention to ensure the existing consumer becomes loyal as recruiting new consumers costs five times more than maintaining the existing consumer [6].

AR is a great feature that businesses may use to give consumers more information [7]. It is also simple, have entertainment value, provide products information, and speed up consumer decision-making process [8]. The value of AR was USD 14.7 billion in 2020 and projected to reach a CAGR of 31.5% during the forecast period 2021 - 2026 [9].

With the increased use of AR, there is a growing need to comprehend its influence on customer behaviour and the experience it provides [10]. However, the use of AR in m-commerce is still a largely unexplored topic [11]. The research on AR is still in an exploratory stage and requires significant improvement [12]. Moreover, since developing and introducing AR is costly, understanding the advantages of AR-based product presentations is critical to helping retailers decide whether to invest in AR or not [3].

Most research on AR in the online environment context has concentrated exclusively on technological acceptance [3, 13]. The study on consumer satisfaction (SAT) mainly highlighted AR's usage, and their focus was not on m-commerce SAT but AR feature SAT [7, 14]. Other literature discovered that AR influences consumers' SAT with the experience, but they did not further explain the influence of m-commerce SAT on customer RPI [4]. This research aims to fill this gap in the literature by understanding how AR influence m-commerce SAT and RPI.

2 Literature Review

2.1 M-Commerce

Mobile technology's remarkable capabilities make it a great tool for users to meet their demands at any time and from any location [15]. Mobile phone are frequently kept close to hand during the day night as it serves a variety of functions [16]. Longer battery life, better data processing, and mobile digital payment methods are just a few of the features that have led to greater m-commerce adoption [17]. Consumers have become increasingly aware of alternatives by searching for the product via mobile devices, which has forced traditional retailers to turn to mobile marketing to improve the buying experience [16].

M-commerce refers to online transactions done with mobile devices [18]. The m-commerce sector has undergone a significant shift from relying on fixed desktop platforms to mobile platforms, resulting in the rise of m-commerce in recent years [16]. M-commerce has grown in popularity over e-commerce, owing to technological advancements, widespread smartphone use, and contemporary trends in consumer behaviour [18]. Moreover, m-commerce provides a greater value offering compared to e-commerce due to the enormous benefits that mobile technology has [15].

2.2 Augmented Reality

AR is an immersive technology that lets users to engage with 3D models by rotating, moving, and zooming in and out of a real-world setting and modifying the actual surroundings [19]. AR modifies the physical environment by adding virtual elements to the physical environment through the virtual layer [2]. AR plays an essential role in building online consumers' views as AR may enhance consumer buying intention by giving consumers details about a product offered [4].

According to previous literature, AR has three main characteristics [20]. First, it integrates the actual world with the virtual world, presenting users with a unique, innovative experience customised to their behaviours. Second, it provides an interactive experience as it provides real time experience. Third, it is detected in 3D, thus providing a vivid visual experience. Vividness and interactivity have been named the significant dimensions for telepresence in communication technology, including reality technology [21] such as AR.

3 Research Model

3.1 Performance Expectancy (PE)

PE is defined as the perceived usefulness of adopting a system and the idea that using a particular system would help consumers perform jobs more effectively [22]. In this study, PE is defined as how consumers perceive that AR will benefit them to perform their job more efficiently. By using AR, consumers can try the product virtually and minimise the mistake when picking the products. The factors influencing consumer SAT in mobile commerce have been examined, and the result found PE critical and significantly influenced SAT [26]. PE was reported to have a more substantial effect on SAT than predicted [24]. Therefore:

H1: Performance Expectancy is significantly associated with satisfaction.

3.2 Effort Expectancy (EE)

EE is defined as the extent of ease associated with utilising a system [22]. It may be suggested that consumers would be satisfied with their experience of using AR as long as they consider the use of the system would be minimal of effort and complexity. A previous study found that EE significantly influenced students' SAT with social media in an online learning environment [25]. Moreover, it is also reported that EE influences neutral confirmation and user SAT on fitness applications [26]. Therefore:

H2: Effort Expectancy is significantly associated with satisfaction.

3.3 Facilitating Conditions (FC)

FC is defined as the degree to which the consumers feel that they have the organisation and technological infrastructure to support the usage of the system [22]. When consumers perceive a sufficient degree of technical and organisational assistance when using AR, they are more likely to have a more pleasant experience resulting in SAT. Previous

research examining nurses' SAT found that FC significantly influence nurses' SAT [27]. FC are also essential for consumer satisfied with their experience [28]. Consumers are likely more satisfied with organisational support such as a good smartphone to use AR when purchasing the product online than consumers who do not have proper AR support. Therefore:

H3: Facilitating Conditions is significantly associated with satisfaction.

3.4 Social Influence (SI)

SI is defined as the degree to which consumers believe that important people around them perceive they should use the new system [22]. As AR on m-commerce in Indonesia is still relatively new, consumers may be primarily affected by others whose opinions are important. It is found that SI statistically influences consumer SAT on m-commerce [29]. The influence of SI on consumer' SAT in mobile payment was investigated, and the result confirmed that SI significantly influences user SAT [30]. It is also found that SI has an essential role in consumer SAT toward mobile social apps [31]. Therefore:

H4: Social Influence is significantly associated with satisfaction.

3.5 Hedonic Motivation (HM)

HM is the pleasure resulting from technology utilisation [32]. AR enhances the buying experiences by making it more interactive. HM was found to influence consumers' SAT in the tourism sector [33]. It is also found a strong relationship between perceived enjoyment and mobile social apps SAT [31]. The influence of HM on consumer e-SAT was also found when examined when utilising food ordering apps [28]. Therefore:

H5: Hedonic Motivation is significantly associated with satisfaction.

3.6 Repurchase Intention (RPI)

Mobile technology's remarkable capabilities make it a great tool for users to meet their demands at any time and from any location [15]. Mobile phones are frequently kept close to hand during the day night as it serves a variety of functions [16]. Longer battery life, better data processing, and mobile digital payment methods are just a few of the features that have led to greater m-commerce adoption [17]. Consumers have become increasingly aware of alternatives by searching for the product via mobile devices, which has forced traditional retailers to turn to mobile marketing to improve the buying experience [16].

The research model is constructed as shown in Fig. 1:

4 Research Method

The questionnaire was collected through Google Form stored on Google drive and initially developed in English and then translated to Indonesia and re-translated to English. The respondents were provided with an explanation about AR and m-commerce. We also provided the link to try AR. The questionnaire was categorised into two parts. The first part gathered the respondents' frequency of using AR in m-commerce and demographic information. Meanwhile, the second part consisted of the evaluation items to measure each variable item. The items were evaluated using a seven-point Likert scale.

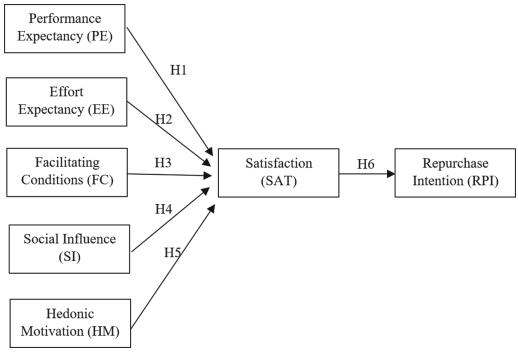

Fig. 1. Research Model

Before the formal survey was distributed, an online pre-test was conducted. The questionnaire consists of 33 items to measure PE (4 items), EE (5 items), FC (4 items), SI (5 items), HM (4 items), SAT (6 items), RPI (5 items). This study conducted the measurement and structural assessment with SmartPLS version 3.3.3 suggested by [36] and IBM SPSS Statistics 26 to conduct the descriptive analysis and ANOVA.

Furthermore, the study examined the response of two groups of expert consumers and novice. Novice users are users with 0–2 years of experience; intermediate users with 2–5 years' experience; expert users with more than five years' experience [37]. However, the AR feature on m-commerce was only rising in 2019, especially in beauty products [14]. Therefore, the adjusted period of years' experience using the technology is needed. This study describes novice user who has limited experience with AR on m-commerce from never been using the feature to two months. Meanwhile, expert users indicated as users who have been using AR in m-commerce for more than two months.

5 Result

5.1 Descriptive Statistics

The questionnaire was collected from October to November 2021. 431 respondents consisting of 254 novice consumers and expert consumers filled out the questionnaire. The respondents mostly use Shopee when using AR in m-commerce to collect 67.5% of the total response. 289 (67.1%) female and 142 (32.9%) male were surveyed. The majority of the respondents were found to be within the age group of 15-24 (78.0%). Most respondents hold a diploma/bachelor's degree (90.0%). Most respondents belong to students (79.8%) based on their occupation. Monthly income-wise, 67.7% of the respondents belong to the income group below Rp. 999.999.

5.2 Measurement Model

This study's measurement model estimation included outer loadings, composite reliability (CR), Cronbach's alpha, and average variance extracted (AVE), tested separately for each group. All of the item loadings ranging from 0.808 to 0.917, indicating the model

Table 1. Measurement model

Items	CR	Cronbachs Alpha	AVE
EE	0.907	0.931	0.730
FC	0.909	0.936	0.786
HM	0.926	0.948	0.819
PE	0.895	0.927	0.761
RPI	0.939	0.953	0.803
SAT	0.931	0.946	0.745
SI	0.940	0.954	0.808

Table 2. ANOVA

Variable	Type of Customer	Mean	F	P-value
PE	Expert	6.079	25.596	0.000
	Novice	5.598		
EE	Expert	5.853	11.386	0.001
	Novice	5.543		
FC	Expert	5.972	8.435	0.004
	Novice	5.677		
SI	Expert	5.169	10.128	0.002
	Novice	4.717		
HM	Expert	5.955	10.451	0.001
	Novice	5.638		
SAT	Expert	5.915	10.259	0.001
	Novice	5.606		
RPI	Expert	5.757	16.097	0.000
	Novice	5.315		

is categorised as reliable [36]. The composite reliability value of all constructs, as shown in Table 1. Was higher than 0.70, ranging from 0.895 to 0.940. Moreover, the Cronbach's alpha value ranging from 0.927 to 0.954, indicating that the constructs in this study are reliable [38]. The AVE was assessed and ranged from 0.730 to 0.819, indicating good convergent validity [36]. To confirm the discriminant validity, the square root of the AVE of each construct was assessed. Each variable above the correlations between pairs of variables, suggesting discriminant validity among the constructs [39].

Table 3. Hypothesis testing

Path	Path Coefficient	P-value	Hyphothesis Test Result
PE -> SAT	0.186	0.025	Supported
EE -> SAT	0.095	0.344	Not supported
FC -> SAT	0.194	0.001	Supported
SI -> SAT	0.115	0.039	Supported
HM -> SAT	0.363	0.000	Supported
SAT -> RPI	0.797	0.000	Supported

5.3 Anova

ANOVA is conducted to determine differences in the behaviour of respondents on the AR feature in m-commerce, regardless of the groups of consumers. As shown in Table 2, the results of ANOVA indicated a significant difference among two groups of expert consumers and novice consumers in all of the constructs. Therefore, it can be concluded that consumers who have more experience using AR on m-commerce showed higher PE, EE, FC, SI, HM, SAT, and most importantly, RPI.

5.4 Structural Model

After the measurement model met all of the requirement criterion, the structural model was assessed to investigate the relationships between latent variables. The bootstrapping technique was utilized to analyse the relationships. As shown in Table 3, the structural model result shows that most hypotheses are supported.

6 Math and Equations

6.1 Expert and Novice Consumers

The results indicated a significant difference among two groups of expert consumers and novice consumers in all of the model constructs, which is in line with prior research [43]. Expert consumers already know how AR helps their purchasing process by giving more information, resulting in a higher PE. A prior study found that most novices and expert teachers accurately identified students' underestimating and struggling. However, expert teachers have a lower error [42]. The expert consumer also likely becomes more pronounced after a more extended period of using the AR. Therefore, they might better overcome a technical error when there is a technical error. FC also showed significant differences between expert and novice consumers. A prior experience by expert consumers likely makes them aware organisational and technical infrastructure they have.

Individuals are usually in a group with similar interests [43]. Expert consumers might be in a group of people who also use AR for longer. HM in expert consumers was also higher. Expert consumers likely know how to utilise the device and how to personalise

the AR to enjoy while using the feature. This study also suggested that expert users have higher SAT and RPI in m-commerce. A previous study found that experienced users are more satisfied with the two databases in Web of Science [44]. Expert consumers might already purchase with the help of AR multiple times. Therefore, they can examine how AR help them to overcome the limitation of online shopping, resulting in SAT and RPI.

6.2 Key Findings

This study demonstrates that one can increase consumer SAT on m-commerce by enhancing consumers' PE. This research finding is align with prior research findings [13, 24, 28, 29, 31]. The consumer's assessment of how the technology will improve their performance determines how satisfied they are with the system [25]. When consumers perceive AR to help them enhance their shopping activity, they will likely feel satisfied with m-commerce. Consumers believe they do not need to invest extra time looking for product information in order to learn more about the product. They will likely perceive that the product presentation on AR has the same presentation in real life.

However, AR EE was found not significantly to influence m-commerce SAT. This finding is aligned with the existing literatures [13, 28, 30]. However, this result contradicts the previous research [25, 29]. This result might be because this study uses the EE of AR to examine the SAT of m-commerce. Meanwhile, the previous studies purely examined the influence of EE of technology on SAT. Moreover, AR helps the consumer enhance their shopping experience by improving the process of looking for information and purchasing behaviour [4]. With those benefits, consumers likely could care less about the effort. It has been argued that EE loses its influence when the amount of benefit and PE in the system increases [45]. Therefore, the consumer might overlook the EE of AR when examining m-commerce SAT.

Furthermore, this research confirms that FC of AR significantly influence m-commerce SAT. The consumer will have a simpler and more pleasant experience when perceiving acceptable organisational, infrastructure, and human assistance [28]. On the other hand, when consumers perceive their device cannot support using AR on m-commerce, they will likely be uncomfortable and face problems, such as glitches. This finding confirms the prior research [27, 28].

SI significantly and positively influenced m-commerce SAT. This finding is align with the findings that SI positively influences consumer SAT of m-commerce [29]. By utilising technology recommended by their peers, consumers will likely feel closer and become part of their community using the same tools. Therefore, it might enhance their SAT with m-commerce.

The findings also showed that the HM of AR was significantly and positively influenced m-commerce SAT. When consumers perceive AR as entertaining, they are likely to be pleased with m-commerce use. The influence of HM on SAT has been confirmed by prior research findings [24, 28, 29, 31]. Therefore, m-commerce providers need to provide their AR features attractive and fun to keep their consumers satisfied with their m-commerce.

Finally, this study found that m-commerce SAT significantly and positively influenced m-commerce RPI. This means that those consumers who are pleased with m-commerce are more likely to repurchase the product from m-commerce. However, when

m-commerce cannot satisfy consumers, they will likely have no intention to repurchase because m-commerce cannot meet their needs. Previous literature has confirmed that SAT is an essential determinant for users to instil RPI in online shopping [45].

6.3 Theoretical Implication

This study is one significant theoretical contribution is the development of AR on mobile commerce, which is beyond the idea of technology acceptance. Many previous types of research mainly focus on technology acceptance of AR in the online shopping context. Moreover, this study also adds new literature by examining satisfaction and repurchase intention using UTAUT. UTAUT is one of the most widely used models to explain the technological context. However, the literature to further explain satisfaction and repurchase intention using UTAUT is still limited. Moreover, this study also showed how novice and expert consumers perceive the technology differently. The study showed that expert consumers examine the model's abstract higher than novice consumers. Therefore, this study enriches the existing literature of novice and expert consumers.

6.4 Practical Implications

AR helps the consumer to enhance satisfaction and repurchase intention on m-commerce. The m-commerce providers should provide their apps with AR features to help consumers do online shopping more effectively, including a better user interface and user experience. Moreover, AR may help m-commerce to enhance their profitability during the downturn, such as COVID-19, as the feature can bring virtual products to life. Therefore, the developer needs to put AR features on their m-commerce.

The developers also need to make the feature accessible for all smartphones. Consumers emphasise how their peers perceive the technology. Therefore, the developer might put a share button on AR apps on their m-commerce to increase the social presence of the AR between the community. Satisfaction also can be enhanced by providing attractive, fun, entertaining AR in m-commerce. The most notable finding is that the relevant stakeholder needs to maintain consumer satisfaction to make their consumer willing to purchase. Moreover, this study found that consumers with more AR experience perceive higher satisfaction and repurchase intention. Therefore, m-commerce providers need to advertise their AR feature so that the consumer will be familiar with the feature and further influence their satisfaction and repurchase intention.

7 Conclusion

The number of m-commerce transactions grows each year. It can be challenging due to erroneous information, resulting in consumer dissatisfaction. Consumers may use AR to aid their shopping process. As a result, there is a more considerable need to comprehend the influence of AR on customer behaviour. This study has highlighted the critical issue related to the influence of AR features on m-commerce SAT and RPI in Indonesia by using UTUT variables.

The results in this study affirm that expert consumers perceive higher in all of the constructs compared to novice consumers. Also, SAT with m-commerce is significantly influenced by PE, SI, and HM of AR. However, this study failed to demonstrate EE as an essential construct to explain consumer SAT. Finally, the RPI of m-commerce was found to be significantly influenced by m-commerce SAT. Furthermore, this study showed the different attitudes of novice and expert consumers toward the construct. This study adds to the literature by examining the impact of AR on m-commerce SAT and RPI using the UTAUT model.

8 Limitation

The age group of the respondents is the first limitation of this study. The respondents for this survey are primarily between 15 and 24. However, the internet user is most predominantly by the age group of 18 to 24 years old. Therefore, this survey can still reflect the majority of internet users. Moreover, this study was conducted in Indonesia. Indonesia might reflect a country with similar ethnicity. Different countries with different cultures and technological adoption might not fit the result. Thus, another country is encouraged to do a similar study.

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References

1. B.& C.Google, Temasek, e-Conomy SEA 2020-At full velocity: Resilient and racing ahead, (2021). https://www.bain.com/globalassets/noindex/2020/e_conomy_sea_2020_report.pdf (accessed October2, 2021).
2. X.Fan, Z.Chai, N.Deng, X.Dong, Adoption of augmented reality in online retailing and consumers' product attitude: A cognitive perspective, J. Retail. Consum. Serv. 53 (2020). https://doi.org/10.1016/j.jretconser.2019.101986.
3. P.Kowalczuk, C.Siepmann (née Scheiben), J.Adler, Cognitive, affective, and behavioral consumer responses to augmented reality in e-commerce: A comparative study, J. Bus. Res. 124 (2021) 357–373. https://doi.org/10.1016/j.jbusres.2020.10.050.
4. G.McLean, A.Wilson, Shopping in the digital world: Examining customer engagement through augmented reality mobile applications, Comput. Human Behav. 101 (2019) 210–224. https://doi.org/10.1016/j.chb.2019.07.002.
5. Black Box Research; Toluna, Into the Light: Understanding What has Changed for the ASEAN Consumer During COVID-19, (2020). https://blackbox.com.sg/everyone/asean-study-disgruntled-consumers-want-regional-ecommerce-players-to-step-up-their-game.
6. A.Bhattacherjee, Understanding Information Systems Continuance: An Expectation-Confirmation Model, MIS Q. 25 (2001) 351–370.
7. H.Qin, B.Osatuyi, L.Xu, How mobile augmented reality applications affect continuous use and purchase intentions: A cognition-affect-conation perspective, J. Retail. Consum. Serv. 63 (2021). https://doi.org/10.1016/j.jretconser.2021.102680.

8. V.Saprikis, G.Avlogiaris, A.Katarachia, Determinants of the intention to adopt mobile augmented reality apps in shopping malls among university students, J. Theor. Appl. Electron. Commer. Res. 16 (2021) 491–512. https://doi.org/10.3390/jtaer16030030.
9. Markets and Markets, Augmented Reality Market worth $88.4 billion by 2026, (2021). https://www.marketsandmarkets.com/PressReleases/augmented-reality.asp.
10. A.Javornik, Augmented reality: Research agenda for studying the impact of its media characteristics on consumer behaviour, J. Retail. Consum. Serv. 30 (2016) 252–261. https://doi.org/10.1016/j.jretconser.2016.02.004.
11. M.Manchanda, M.Deb, On m-Commerce Adoption and Augmented Reality: A Study on Apparel Buying Using m-Commerce in Indian Context, J. Internet Commer. 20 (2021) 84–112. https://doi.org/10.1080/15332861.2020.1863023.
12. V.Arribas, J.A.Alfaro, 3D technology in fashion: from concept to consumer, J. Fash. Mark. Manag. An Int. J. 22 (2018) 240–251. https://doi.org/https://doi.org/10.1108/JFMM-10-2017-0114.
13. H.Do, W.Shih, Q.Ha, Effects of mobile augmented reality apps on impulse buying behavior : An investigation in the tourism fi eld, Heliyon. 6 (2020) e04667. https://doi.org/10.1016/j.heliyon.2020.e04667.
14. S.Liu, T.A.Napitupulu, Analysing factors affecting satisfaction and purchase intention towards mobile augmented reality e-commerce applications in Indonesia, J. Theor. Appl. Inf. Technol. 98 (2020) 3503–3517.
15. Y.Ma, Y.Cao, L.Li, J.Zhang, A.P.Clement, Following the flow: Exploring the impact of mobile technology environment on user's virtual experience and behavioral response, J. Theor. Appl. Electron. Commer. Res. 16 (2021) 170–187. https://doi.org/https://doi.org/10.4067/S0718-18762021000200112.
16. S.Omar, K.Mohsen, G.Tsimonis, A.Oozeerally, J.H.Hsu, M-commerce: The nexus between mobile shopping service quality and loyalty, J. Retail. Consum. Serv. 60 (2021) 102468. https://doi.org/10.1016/j.jretconser.2021.102468.
17. B.Taneja, The Digital Edge for M-Commerce to Replace E-Commerce, IGI Glob. (2021) 299–318. https://doi.org/10.4018/978-1-7998-8587-0.ch016.
18. G.M.Meghisan-Toma, S.Puiu, N.M.Florea, F.Meghisan, D.Doran, Generation z' young adults and m-commerce use in romania, J. Theor. Appl. Electron. Commer. Res. 16 (2021) 1458–1471. https://doi.org/10.3390/jtaer16050082.
19. A.Poushneh, A.Z.Vasquez-Parraga, Discernible impact of augmented reality on retail customer's experience, satisfaction and willingness to buy, J. Retail. Consum. Serv. 34 (2017) 229–234. https://doi.org/10.1016/j.jretconser.2016.10.005.
20. R.T.Azuma, A survey of augmented reality, Presence Teleoperators Virtual Environ. 6 (1997) 355–385.
21. J.Steuer, Defining Virtual Reality: Dimensions Determining Telepresence, J. Commun. 42 (1992) 73–93. https://doi.org/10.1111/j.1460-2466.1992.tb00812.x.
22. V.Venkatesh, M.G.Morris, G.B.Davis, F.D.Davis, User acceptance of information technology: Toward a unified view, MIS Q. 27 (2003) 425–478.
23. Z.Marinković, Veljko; Kalinic, Antecedents of customer satisfaction in mobile commerce: Exploring the moderating effect of customisation, Online Inf. Rev. 41 (2017) 138–154. https://doi.org/10.1108/OIR-11-2015-0364.
24. Z.Kalinić, V.Marinković, L.Kalinić, F.Liébana-Cabanillas, Neural network modeling of consumer satisfaction in mobile commerce: An empirical analysis, Expert Syst. Appl. 175 (2021) 0–3. https://doi.org/10.1016/j.eswa.2021.114803
25. L.Kaewkitipong, C.C.Chen, P.Ractham, Using social media to enrich information systems field trip experiences: Students' satisfaction and continuance intentions, Comput. Human Behav. 63 (2016) 256–263.https://doi.org/10.1016/j.chb.2016.05.030

26. A.Yousaf, A.Mishra, A.Gupta, 'From technology adoption to consumption': Effect of pre-adoption expectations from fitness applications on usage satisfaction, continual usage, and health satisfaction, J. Retail. Consum. Serv. 62 (2021) 102655. https://doi.org/10.1016/j.jretconser.2021.102655.
27. É.Maillet, L.Mathieu, C.Sicotte, Modeling factors explaining the acceptance, actual use and satisfaction of nurses using an Electronic Patient Record in acute care settings: An extension of the UTAUT, Int. J. Med. Inform. 84 (2015) 36–47. https://doi.org/https://doi.org/10.1016/j.ijmedinf.2014.09.004.
28. A.A.Alalwan, Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse, Int. J. Inf. Manage. 50 (2020) 28–44. https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2019.04.008.
29. V.Marinković, A.Đorđević, Z.Kalinić, The moderating effects of gender on customer satisfaction and continuance intention in mobile commerce: a UTAUT-based perspective, Technol. Anal. Strateg. Manag. 32 (2020) 306–318. https://doi.org/10.1080/09537325.2019.1655537.
30. A.K.Kar, What Affects Usage Satisfaction in Mobile Payments? Modelling User Generated Content to Develop the "Digital Service Usage Satisfaction Model," Inf. Syst. Front. 23 (2021) 1341–1361. https://doi.org/https://doi.org/10.1007/s10796-020-10045-0.
31. C.H.Hsiao, J.J.Chang, K.Y.Tang, Exploring the influential factors in continuance usage of mobile social Apps: Satisfaction, habit, and customer value perspectives, Telemat. Informatics. 33 (2016) 342–355. https://doi.org/10.1016/j.tele.2015.08.014.
32. V.Venkatesh, J.Y.L.Thong, X.Xu, Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology, MIS Q. 36 (2012) 157–178. https://doi.org/10.2307/41410412.
33. W.Lee, C.Jeong, Distinctive roles of tourist eudaimonic and hedonic experiences on satisfaction and place attachment: Combined use of SEM and necessary condition analysis, J. Hosp. Tour. Manag. 47 (2021) 58–71. https://doi.org/10.1016/j.jhtm.2021.02.012.
34. R.A.Spreng, G.D.Harrell, R.D.Mackoy, Service recovery: Impact on satisfaction and intentions, J. Serv. Mark. 9 (1995) 15–23. https://doi.org/10.1108/08876049510079853.
35. G.Christodoulides, N.Michaelidou, Shopping motives as antecedents of e-satisfaction and e-loyalty, J. Mark. Manag. 27 (2010) 181–197. https://doi.org/10.1080/0267257X.2010.489815.
36. J.F.Hair, J.J.Risher, M.Sarstedt, C.M.Ringle, When to use and how to report the results of PLS-SEM, Eur. Bus. Rev. 31 (2019) 2–24. https://doi.org/10.1108/EBR-11-2018-0203.
37. F.Ntawanga, A.P.Calitz, L.Barnard, Maintaining customer profiles in an e-commerce environment, ACM Int. Conf. Proceeding Ser. 338 (2008) 169–179. https://doi.org/10.1145/1456659.1456679.
38. J.C.Nunnally, Psychometric theory 3E, Tata McGraw-Hill Education, 1994.
39. C.Fornell, D.F.Larcker, Structural equation models with unobservable variables and measurement error: Algebra and statistics, (1981).
40. A.McLeod, S.Pippin, V.Catania, Using technology acceptance theory to model individual differences in tax software use, 15th Am. Conf. Inf. Syst. 2009, AMCIS 2009. 10 (2009) 6998–7008.
41. J.Zhang, J.Zhang, M.Zhang, From free to paid: Customer expertise and customer satisfaction on knowledge payment platforms, Decis. Support Syst. 127 (2019) 113140. https://doi.org/10.1016/j.dss.2019.113140.
42. T.Seidel, K.Schnitzler, C.Kosel, K.Stürmer, D.Holzberger, Student Characteristics in the Eyes of Teachers: Differences Between Novice and Expert Teachers in Judgment Accuracy, Observed Behavioral Cues, and Gaze, Educ. Psychol. Rev. 33 (2021) 69–89. https://doi.org/https://doi.org/10.1007/s10648-020-09532-2.
43. E.Cho, J.Son, The effect of social connectedness on consumer adoption of social commerce in apparel shopping, Fash. Text. 6 (2019). https://doi.org/10.1186/s40691-019-0171-7.

44. M.Okhovati, E.Sharifpoor, M.Aazami, F.Zolala, M.Hamzehzadeh, Novice and experienced users' search performance and satisfaction with Web of Science and Scopus, J. Librariansh. Inf. Sci. 49 (2017) 359–367. https://doi.org/10.1177/0961000616656234.
45. F.D.Davis, R.P.Bagozzi, P.R.Warshaw, User acceptance of computer technology: A comparison of two theoretical models, Manage. Sci. 35 (1989) 982–1003.
46. N.Meilatinova, Social commerce: Factors affecting customer repurchase and word-of-mouth intentions, Int. J. Inf. Manage. 57 (2021) 102300. https://doi.org/10.1016/j.ijinfomgt.2020.102300.