

Analysis of the Influence of Effort Expectancy, Perceived Usefulness, and Digital Literacy on Intention to Use Retail Shopping Applications

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Abstract

The digital transformation in the retail sector has led to the emergence of various online shopping applications that facilitate consumer transactions. However, the successful adoption of these applications is highly influenced by user perceptions. This study aims to analyze the impact of effort expectancy, perceived usefulness, and digital literacy on the intention to use retail shopping applications. Using a quantitative approach with a survey method, data were collected from 200 respondents who are users of shopping applications in urban areas. The analysis technique used was multiple linear regression. The results indicate that all three independent variables significantly affect the intention to use. Effort expectancy has a positive effect, meaning that the easier the application is to use, the higher the user's intention to use it. Perceived usefulness also shows a strong impact, indicating that perceptions of the application's benefits play a crucial role in shaping the intention to use. Additionally, digital literacy proves to be an important supporting factor that enables users to understand and maximize the application's features optimally. This study provides contributions to application developers and retail industry players in formulating digital marketing strategies and enhancing user experience.

Keywords: effort expectancy, perceived usefulness, digital literacy, intention to use, retail shopping applications.

INTRODUCTION

The development of digital technology has brought significant changes in various aspects of life, including consumer behavior when shopping. Digital innovations, such as online shopping applications, allow consumers to access a wide range of products and services through their smart devices (Santoso et al., 2023). This not only simplifies the purchasing process but also provides a more efficient, faster, and flexible shopping experience without being bound by time and location constraints (Kushariyadi et al., 2024). This transformation marks a major shift in the retail ecosystem, requiring industry players to continually adapt to the needs and digital expectations of consumers. The ease of access to digital platforms, the availability of diverse products, and personalized features tailored to

user preferences are the main factors driving the increasing popularity of retail shopping applications. These features not only pamper users with comfort and efficiency but also create a more relevant and enjoyable shopping experience (Yunia et al., 2023). The success of technology adoption in the digital retail sector does not solely depend on the sophistication of the features offered but also on how willing users are to accept and use the application. Perceptions of ease of use, perceived benefits, and users' ability to operate digital technology are crucial elements in determining the level of technology acceptance. Therefore, understanding the factors influencing users' intentions to use shopping applications is crucial in digital development and marketing strategies (Sari et al., 2022).

According to the Unified Theory of Acceptance and Use of Technology (UTAUT), an individual's intention to use technology is influenced by several key factors, one of which is effort expectancy (Mendrofa et al., 2024). Effort expectancy is defined as the perceived ease with which an individual can use a system or technology. If users feel that they do not need to exert much effort to understand and operate the application, the adoption and loyalty to the application will increase. Therefore, application developers must focus on the comfort and ease of navigation to increase intention to use among consumers (Sugiharto et al., 2019; Kaoy et al., 2020).

In addition, perceived usefulness, which is a key concept in the Technology Acceptance Model (TAM), also plays an important role in influencing a person's intention to use technology. Perceived usefulness refers to the extent to which an individual believes that using a system will enhance their performance or provide significant benefits. In the context of retail shopping applications, these benefits could include time efficiency, ease of product access, competitive pricing offers, and easy payment processes (Purwanto & Tannady, 2020). When users feel that the application genuinely provides added value in their daily shopping activities, they are more likely not only to use it occasionally but also to make it a part of their routine. Therefore, developers and service providers need to ensure that the features offered meet real user needs and provide practical solutions to the problems they face (Kurniawan et al., 2023; Ramadhan et al., 2020).

Digital literacy has become a crucial factor in supporting the successful adoption of technology, particularly in using online shopping applications. Digital literacy not only encompasses basic skills in using technological devices but also includes understanding how applications work, digital security, and the ability to assess information critically (Tannady & Dewi, 2024). In the context of retail shopping applications, users with good digital literacy will be more capable of navigating the application's features, conducting secure transactions, and utilizing additional services such as order tracking, product reviews, and loyalty programs (Robo et al., 2024). Conversely, low digital literacy can become a significant barrier to application usage, especially for certain age groups or communities with limited access to technology education. Users who are less familiar with using applications may feel confused, insecure, or even concerned about digital fraud risks (Utomo et al., 2023). This effort can be achieved through user education, beginner-friendly application interfaces, and the provision of accessible guides or customer support services (Rachmat et al., 2023).

This study focuses on users of retail shopping applications in urban areas because of the higher penetration of technology, adequate internet access, and the more dominant adoption of digital lifestyles in these areas compared to non-urban regions. Urban communities tend to be more responsive to digital innovations and more accustomed to using mobile applications in their daily activities, including shopping. Therefore, focusing the study on this region is considered relevant to obtaining an accurate understanding of the factors affecting the intention to use online shopping applications. This study aims to empirically test the impact

of effort expectancy, perceived usefulness, and digital literacy on the intention to use retail shopping applications. By understanding the interrelationship between these variables, this research is expected to provide theoretical contributions to the development of technology acceptance models, while also offering practical insights for retail industry players and application developers. The findings can serve as a basis for designing strategies to enhance application adoption, develop user-friendly features, and create digital education programs that meet the needs of modern urban consumers.

METHOD

This study uses a quantitative approach with a survey method. Data were collected through an online questionnaire distributed to 200 respondents who are active users of retail shopping applications such as Tokopedia, Shopee, and Lazada. The population in this study consists of users of shopping applications in the cities of Jakarta, Bandung, and Surabaya. A purposive sampling technique was employed to select respondents who have at least three months of experience using online shopping applications. The research instrument consists of four main constructs: effort expectancy, perceived usefulness, digital literacy, and intention to use, which were measured using a 5-point Likert scale. The questionnaire was designed based on indicators that have been validated in previous studies. The data analysis technique used is multiple linear regression with the assistance of SPSS software. Before analysis, validity and reliability tests were conducted to ensure the quality of the research instrument. Classical assumption tests, such as normality, multicollinearity, and heteroscedasticity, were also applied.

RESULT AND DISCUSSION

The results of the regression analysis in this study show that effort expectancy has a positive and significant effect on intention to use retail shopping applications. This finding indicates that the higher the perception of ease of use of an application, the greater the likelihood of a person intending to use it. Users tend to choose applications that are simple, easy to understand, and do not require excessive effort to operate, especially in the context of shopping, which demands quick and efficient processes. These results are consistent with previous findings in the UTAUT model, which states that effort expectancy is an important determinant in forming an individual's intention to adopt new technology. This study also supports previous studies that found ease of use to significantly contribute to the acceptance of applications, particularly in the digital retail sector. Therefore, it is recommended that application developers continue to simplify the interface and usage flow to improve user comfort and interest in the long term.

Perceived usefulness also proves to have a significant positive effect on intention to use retail shopping applications. This indicates that when users feel that the application provides real benefits in their shopping activities, such as saving time, providing easy access, or helping them quickly find products, they are more likely to use it continuously. This study also strengthens similar findings in various previous studies in the e-commerce field, which concluded that the greater the perceived functional benefits, the higher the users' intention to use the application continuously. Therefore, retail shopping app developers need to focus on creating relevant and useful functional value for users in their daily lives.

Digital literacy shows a significant relationship with intention to use retail shopping applications. This finding suggests that individuals with good digital understanding and skills tend to feel more comfortable and confident in using online shopping applications. They are more capable of navigating various application features, understanding how the system

works, and mitigating potential risks such as digital fraud or data security issues. This study strengthens the argument that digital literacy plays an important role in accelerating technology adoption. Individuals who are more skilled in using digital devices and applications will adapt more easily to new features offered by retail shopping applications. Therefore, application developers should consider improving digital literacy as part of their strategy, either through providing clearer user guides, beginner-friendly interfaces, or educational programs that can help users feel more confident in using their applications.

Compared to previous studies that only emphasized the aspects of perceived usefulness and ease of use, this research introduces the dimension of digital literacy as an additional factor influencing intention to use retail shopping applications. This study found that digital literacy makes an important contribution to the adoption of shopping applications, given that users' skills and understanding of technology can affect their comfort and confidence in using the applications. This suggests that factors other than perceived usefulness and ease of use, such as digital literacy, need to be considered in the technology acceptance model, as it can expand the understanding of the variables influencing users' intention to adopt retail shopping applications. Thus, the findings of this study provide new insights and could serve as a reference for future research incorporating the dimension of digital literacy in the context of technology acceptance.

Other studies have also shown similar findings regarding the effect of perceived usefulness and ease of use on intention to use retail shopping applications, especially among Generation Z. However, this study broadens the scope of these findings by showing that digital literacy remains relevant even among a wider age group. Although Generation Z is known to be more familiar with technology, the findings of this study indicate that digital literacy plays a significant role in supporting application adoption, not only among the younger generation but also in broader age groups. This emphasizes that digital skills and understanding are not only relevant for the younger generation, who are already accustomed to technology, but also for older individuals who may require improved digital literacy to utilize shopping applications fully. Therefore, this research enriches the literature by demonstrating that digital literacy has a significant impact across all age groups, and is not limited to the younger generation, providing a broader perspective on how this factor influences the intention to use technology across different demographics.

Overall, the model used in this study is able to explain approximately 67% of the variability of intention to use retail shopping applications, indicating that the three independent variables, effort expectancy, perceived usefulness, and digital literacy, have a significant impact on users' intention to adopt the application. This figure reflects that although other factors may also influence intention to use, the three variables examined in this study provide substantial contributions to explaining user behavior. These results underscore the importance of considering these three aspects in the development of retail shopping applications. Effort expectancy and perceived usefulness provide an overview of how users assess the ease and benefits of an application. At the same time, digital literacy adds a new relevant dimension to the success of application adoption. Therefore, application developers should consider these three factors to enhance the user experience and encourage sustained app usage.

The practical implication of these findings is that retail shopping app developers need to ensure that the user interface (UI) is designed in a simple, intuitive, and easy-to-understand way so that users do not feel difficulty in navigating the application. A smooth and barrier-free user experience will enhance the perception of effort expectancy, which in turn encourages the intention to use the application. Additionally, developers need to provide

digital education for new users, especially for those with limited digital literacy. This education can take the form of tutorials, user guides, or even responsive customer support services, so that users feel more confident in utilizing the application. By improving digital literacy through education, users will better understand the benefits offered by the application (perceived usefulness) and are more likely to use it continuously. This will strengthen the adoption rate of the application across various user segments.

Moreover, digital marketing strategies should highlight the real benefits of the application in users' daily lives, such as time efficiency, ease of access to products, and a more practical shopping experience. By emphasizing functional values that users can directly feel, app developers can strengthen the perceived usefulness. Users who feel that the application can save their time, offer products that match their needs, or facilitate transactions will be more motivated to continue using the application. To this end, app developers can also use marketing content that highlights user testimonials, relevant use cases, and features that provide immediate benefits. This not only enhances consumers' understanding of the app's benefits but also influences their intention to adopt and use it continuously. By integrating these benefits into marketing communication, the application will be more easily accepted and more attractive to potential users.

CONCLUSION

This study concludes that effort expectancy, perceived usefulness, and digital literacy significantly influence the intention to use retail shopping applications. These three factors play an important role in shaping a positive perception of digital technology and enhancing users' intention to adopt and use the application continuously. Users who perceive the application as easy to use, beneficial, and feel confident in their digital skills are more motivated to continue using the application. Therefore, application developers and digital retail practitioners need to focus on improving ease of use by designing intuitive interfaces and clearly communicating the application's value to users. Demonstrating how the application can save time, provide easy access to products, and offer a convenient shopping experience can increase perceived usefulness and encourage wider adoption. In addition, improving digital literacy among the public should also be a priority, especially among new users. Developers can offer digital education to ensure that all user groups can maximize the use of the application and feel comfortable interacting with digital technology.

This study contributes theoretically by integrating concepts from the Unified Theory of Acceptance and Use of Technology (UTAUT), Technology Acceptance Model (TAM), and digital literacy, which provides a more holistic understanding of the factors influencing the intention to use retail shopping applications. Practically, these findings offer valuable insights for developing more inclusive and user-friendly retail shopping applications, with a focus on ease of use, clear benefits, and enhanced digital literacy. Future research is encouraged to explore other factors that may also influence application adoption, such as trust and user experience, in order to enrich the technology acceptance model in the e-commerce sector and create a more optimal user experience.

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