

The Influence of Originality, Web Quality, Peer Influence, Hedonic, Functional, Social and Cognitive on Consumer Purchase Intention by Using Virtual Administration Services for Online Shopping

Fauzan M Ghassani Harahap¹, Peri Akbar Manaf²

¹Bina Nusantara University, Jakarta, Indonesia, fauzan.harahap@binus.ac.id

²Bina Nusantara University, Jakarta, Indonesia, peri.manaf@binus.ac.id

Corresponding Author: fauzan.harahap@binus.ac.id¹

Abstract: Virtual administration (VA) services powered by artificial intelligence have recently gained relevance in academia and industry. Digital platforms are increasingly integrating AI-based virtual admin assistants to support consumers during service interactions and the purchasing process. However, the motivational factors that drive consumers to adopt virtual admin services and their influence on purchase intention remain underexplored in the existing literature. Addressing this research gap, this study proposes a theoretical model based on consumer innovativeness, hedonic motivation theory, and the stimulus-organism-response (SOR) framework to investigate how originality, website quality, peer influence, functional, cognitive, and social motivation shape hedonic experiences and purchase intention in the context of AI-based virtual admin services. Data were collected from online users who had interacted with AI-based virtual admin services for online shopping. Structural equation modeling was used to test the proposed hypotheses. The results revealed that originality, website quality, and peer influence significantly enhance consumers' hedonic motivation. Furthermore, hedonic motivation positively impacts purchase intention. In addition, originality, functional value, cognitive value, website quality, and social motivation exert a direct influence on purchase intention. Peer influence significantly predicts social motivation, which subsequently increases purchase intention, highlighting the role of social perception in digital service adoption. This study contributes to the literature by extending consumer innovation theory to the context of AI-based virtual admin services, emphasizing the psychological (hedonic and cognitive), functional, and social dimensions that shape consumer purchase decisions. Practically, these findings provide strategic insights for e-commerce platforms and service designers to enhance virtual admin interfaces, improve website quality, and encourage social engagement to strengthen purchase intention.

Keywords: Originality, Web Quality, Peer Influence, Hedonic, Functional, Social, Cognitive, Purchase Intention

INTRODUCTION

Advances in Artificial Intelligence and digitalization have given rise to Virtual Administrative services that assist consumers and users in online shopping. Virtual Admin services have emerged as an innovative solution used by both consumers and users. The increasing adoption of digital communication has generated significant consumer and user interest in using virtual communication services. These services enable consumers and users to shop practically and conveniently. Consequently, virtual admin services have attracted the attention of researchers and practitioners seeking to understand the factors that drive consumer and user desire to use these services. Purchase intention refers to the level of planning or desire of consumers to purchase a product or service (Venkatraman & Price, 1990; Afful Ekow Kelly, 2024; Pradeep Kautish et al., 2023). Many studies have examined the determinants of purchase intention in a digital context (Rohit Dhiman, 2025; Gai et al., 2024; Miao et al., 2022), but few researchers have explored this concept in the realm of virtual administrative services (Md Shamim Hossain, 2025; Sergio Barta et al., 2023; Esfahani et al., 2023).

Despite the increasing reliance on AI-based service assistants, little is known about the psychological, functional, and social factors that shape consumers' motivations to subscribe to or pay for VA services. Technology adoption cannot be fully explained without considering psychological motivations such as enjoyment, curiosity, and emotional satisfaction. For example, hedonic motivation—the pleasure, excitement, and enjoyment derived from using an innovative product—plays a significant role in influencing user behavior (Hwang et al., 2009; McLean et al., 2024; Pradeep Kautish et al., 2023). Similarly, originality, defined as the perceived uniqueness and novelty of a service, has been identified as a significant driver of consumer interest, usage intention, and purchase decisions (Casalo et al., 2017; Pradeep Kautish et al., 2023; Damsar et al., 2022). In addition to innovation and enjoyment, website or platform quality is crucial in shaping consumers' perceptions, trust, and usefulness of technology-based services.

Responsive, visually appealing, and user-friendly interfaces increase users' confidence and influence their intention to use and purchase digital services (Hsiao et al., 2010; Hanaysha et al., 2025; Afful Ekow Kelly, 2024). Furthermore, cognitive motivation—users' desire to explore, learn, and think creatively—also contributes to the adoption of new service technologies (Sharma et al., 2024; Kautish et al., 2023; Pradeep Kautish et al., 2023). Consumers are often motivated not only by functional benefits but also by the cognitive stimulation provided through interactions with AI-based services. Social interactions increasingly contribute to consumer behavior. Social influence and peer influence from friends, family, or online communities have been shown to influence individuals' decisions to use innovative technologies (Afful Ekow Kelly, 2024; Gunawan et al., 2023; Pradeep Kautish et al., 2023).

Furthermore, existing studies have not sufficiently addressed whether trust acts as a mediating mechanism between these factors and purchase intention, despite trust being considered a crucial determinant in online service environments. Therefore, this study aims to investigate the determinants of consumer purchase intention towards virtual administration services by including hedonic value, originality, website quality, functional value, cognitive motivation, social influence, and peer influence. Furthermore, this study also explores whether trust mediates the relationship between these factors and purchase intention. The following section presents a detailed literature review to establish a theoretical foundation for this study.

METHOD

This study uses a quantitative method with a questionnaire distributed to individuals who frequently shop online because it connects several variables related to an individual's

experience in online shopping using virtual admin services. To analyze the overall data, SmartPLS 4.0 was used to simultaneously test the relationship between dependent, independent, and mediating variables (Gefen et al., 2000; Jajal Rajeh Hanaysha, 2025; Pradeep Kautish et al., 2023). The use of Structural Equation Modeling (SEM) SmartPLS 4.0 was also used to adjust the research model and handle more specific sample size data distributions. The following are the dependent, independent, and mediating variables in this study.

Primary data collection to draw conclusions in this study used a questionnaire and the sample of this study were individuals who frequently shop online and use virtual admin services to inquire about the products they will buy. In this case, the information to be collected is about the demographics of respondents and about their experiences using virtual admin services in online shopping until they intend to buy the product. The technique used in this sample is snowball sampling, sampling with this technique is used to ensure the criteria of the selected respondents are in accordance with the needs of this study, namely people who shop online and use virtual admin services before deciding whether or not to buy the intended product. A total of 350 respondents were collected for analysis and drawing conclusions, (Bentler and Chou, 1987; Jajal Rajeh Hanaysha, 2025; Afful Ekow Kelly, 2024).

RESULTS AND DISCUSSION

1. Measurement Model Testing (Outer Model)

To ensure the quality of the research instrument, construct validity and reliability were tested using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach.

A. Convergent Validity

Convergent validity was evaluated through the outer loading value of each indicator on the latent construct. An indicator was declared valid if the loading value was >0.70 , and values between 0.50 – 0.60 were acceptable. Based on the results in Figure 1 and Table 1, all indicators had loading factor values above 0.70 , thus all items were declared valid, and no items were eliminated from the model (Budi Susetio and Anita Lie, 2025; Ghazali, 2024; Prabowo I T, 2024).

Table 1. Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE (Average Variance Extracted)
Originality (X1)	0,909	0,932	0,734
Website Quality (X2)	0,944	0,956	0,783
Peer Influence (X3)	0,921	0,941	0,760
Functional (X4)	0,963	0,968	0,772
Cognitive (X5)	0,936	0,951	0,797
Hedonic (Z1)	0,962	0,968	0,789
Social (Z2)	0,964	0,969	0,777
Purchase Intention (Y)	0,895	0,927	0,761

B. Discriminant Validity

Discriminant validity was tested using two approaches: cross-loading and the Fornell-Larcker Criterion. The cross-loading results indicated that the correlation of each indicator with

its original construct was higher than its correlation with other constructs, thus meeting the discriminant validity criteria. Furthermore, the table below shows that the square root of the Average Variance Extracted (AVE) value for each construct was higher than the correlation between the other constructs. Thus, all constructs in the model demonstrated good discriminant validity.

Table 2. Discriminant Validity

	Cognitive (X5)	Functional (X4)	Hedonic (Z1)	Originality (X1)	Peer Influence (X3)	Purchase Intention (Y)	Social (Z2)	Website Quality (X2)
Cognitive (X5)	0,893							
Functional (X4)	0,573	0,878						
Hedonic (Z1)	0,475	0,312	0,888					
Originality (X1)	0,409	0,244	0,521	0,857				
Peer Influence (X3)	0,386	0,285	0,614	0,424	0,872			
Purchase Intention (Y)	0,474	0,277	0,290	0,235	0,331	0,872		
Social (Z2)	0,551	0,484	0,385	0,393	0,377	0,426	0,881	
Website Quality (X2)	0,395	0,281	0,531	0,526	0,464	0,312	0,438	0,885

2. Measurement Structural Model (Inner Model)

A. R-Square (R²)

Table 3. R-Square (R²)

	R Square	Adjusted R Square
Hedonic (Z1)	0,363	0,358
Purchase Intention (Y)	0,225	0,211
Social (Z2)	0,335	0,330

The R-Square evaluation results in Table above show: hedonic (Z1) has an R² of 0.363, meaning 36.3% of the hedonic variance is explained by the constructs in the model, and 63.7% is explained by other variables outside the model. Purchase Intention (Y) has an R² of 0.225, meaning 22.5% of the variance is explained by the constructs in the model. Social (Z2) has an R² of 0.335, meaning 33.5% of the variance is explained by the research variables.

B. Effect Size (f²)

Table 4. Effect Size (f²)

Variable	f ²	Category
Originality (X1) -> Hedonic (Z1)	0.126	Medium
Website Quality (X2) -> Hedonic (Z1)	0.144	Medium
Website Quality (X2) -> Purchase Intention (Y)	0.106	Medium
Peer Influence (X3) -> Social (Z2)	0.048	Small
Peer Influence (X3) -> Purchase Intention (Y)	0.147	Medium
Functional (X4) -> Purchase Intention (Y)	0.150	Medium
Cognitive (X5) -> Social (Z2)	0.290	Strong

Hedonic (Z1) -> Purchase Intention (Y)	0.110	Medium
Social (Z2) -> Purchase Intention (Y)	0.072	Small

Based on Table above, the f^2 value indicates the strength of the influence of the exogenous variables on the endogenous variables: Cognitive (0.150), Originality (0.147), and Website Quality (0.144) have a moderate influence on the endogenous variables. Functional (0.110), Hedonic (0.126), and Peer Influence (0.072) show a small influence. Social (0.048) has a small influence on Purchase Intention. Thus, the Cognitive, Originality, and Website Quality variables are relatively stronger predictors in the model.

C. Hypothesis Testing (Path Coefficient)

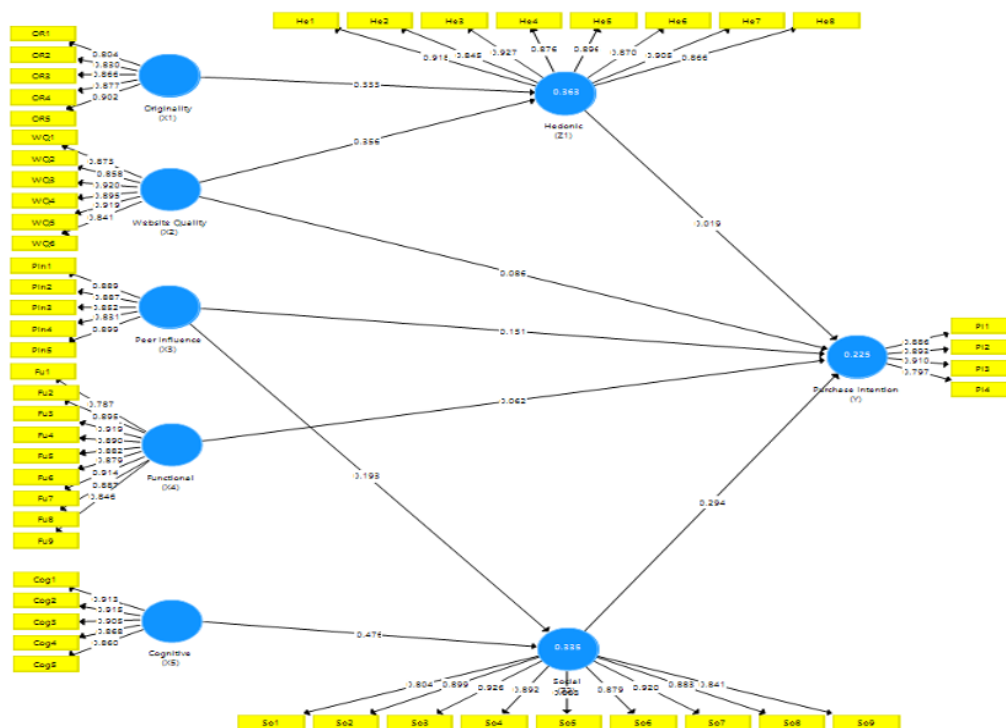


Figure 1. Hypothesis Path

The bootstrapping results in figure 4.1 show that: Cognitive has a significant effect on Social ($\beta = 0.476$; $p = 0.000$), Social has a significant effect on Purchase Intention ($\beta = 0.294$; $p = 0.000$), Originality has a significant effect on Hedonic ($\beta = 0.333$; $p = 0.000$), Website Quality has a significant effect on Hedonic ($\beta = 0.356$; $p = 0.000$) and Purchase Intention ($\beta = 0.086$; $p = 0.000$), Functional and Hedonic have no significant effect on Purchase Intention ($p > 0.05$), Peer Influence has no direct effect on Purchase Intention ($p = 0.133$), but has a significant effect on Social ($p = 0.002$), For indirect influence, Cognitive and Peer Influence are proven to influence Purchase Intention through Social ($p < 0.01$), indicating a partial mediation effect.

CONCLUSION

- 1) The results of this study confirm that all measurement instruments used in this study are valid and reliable, forming a strong foundation for structural model analysis. Convergent validity was achieved for all indicators, as reflected by factor loading values exceeding 0.70, indicating that each indicator effectively measures its respective construct. This finding is reinforced by discriminant validity through cross-loading and the Fornell-Larcker criterion, where the square root of the AVE for each construct is greater than the correlation with other constructs, indicating clear differentiation among the latent variables. AVE

values above 0.50 and Composite Reliability and Cronbach's Alpha scores above 0.70 further demonstrate high internal consistency and reliability, confirming that the research instruments are robust and suitable for further structural model analysis.

- 2) From a structural model perspective, the R-Square (R^2) results indicate that hedonic value (Z1) is explained by 36.3% of the variance, purchase intention (Y) by 22.5%, and social influence (Z2) by 33.5%. These values indicate that although the model has moderate predictive power for the hedonic and social constructs, its predictive power for purchase intention is relatively low, suggesting that other external factors outside the model also influence consumer decisions. Furthermore, the f^2 effect size analysis shows that cognitive value, originality, and website quality have moderate effects on their respective dependent variables, while functional, hedonic, peer influence, and social values display small effect sizes. This highlights that the cognitive, originality, and website quality dimensions are relatively stronger predictors in shaping consumer responses compared to the others. The path coefficient analysis reveals several key relationships. Cognitive value had a significant positive effect on social influence ($\beta = 0.476$; $p = 0.000$), and peer influence also significantly influenced social value ($\beta = 0.193$; $p = 0.002$), highlighting the importance of psychological and social dynamics in digital consumer interactions. Social value, in turn, significantly increased purchase intention ($\beta = 0.294$; $p = 0.000$), confirming that social engagement and connection with others play a crucial role in motivating consumers to make purchases. Website originality and quality significantly influenced hedonic value, demonstrating that platform uniqueness and quality enhance emotional enjoyment.
- 3) However, the direct effects of functional and hedonic value on purchase intention were insignificant, indicating that utility and emotional satisfaction alone are insufficient to directly drive purchase behavior without social reinforcement. Overall, this study contributes theoretically by demonstrating that the structural model of consumer behavior is strongly supported by valid and reliable measurements, and that social value plays a central role in mediating cognitive and peer influence on purchase intention. Practically, these findings suggest that marketers should focus not only on functional and emotional product attributes but also on enhancing social interaction, website experience, and cognitive engagement to effectively increase consumer purchase intention. Future research should consider additional variables or contextual factors to enhance the model's explanatory power, particularly regarding purchase intention.
- 4) The theoretical and empirical contributions of this study are demonstrated by the theory that originality, website quality, peer influence, hedonic, functional, social, and cognitive variables have a positive influence on consumer purchase intention when using innovative services provided in online shopping.
- 5) The practical contribution of this study also shows that for businesses offering products and services online, virtual admin services are a necessary service for the public to influence consumer usage intentions, reflecting consumer needs for products and services offered online. The social contribution of this study is also evident in the public's behavior in using innovative services from a platform that facilitates consumers to inquire about products they wish to purchase. The conceptual or regional contribution of this study is evident in the sample used. This study only included online shoppers, while virtual admin services are also broad in scope, including transportation, finance, and other fields requiring virtual admin services.

REFERENCES

- A.A. Abdulmuhsin, H.D. Hussein, A.A. Hadi, R.E. Masa'deh, A.F. Alkhwalidi, Impact of artificial intelligence and knowledge management on proactive green innovation: the moderating role of trust and sustainability, *Asia-Pac. J. Bus. Adm.* 17 (3) (2024) 765–795, <https://doi.org/10.1108/APJBA-05-2024-0301>.

- A.F. Alkhwalidi, M.M. Alidarous, E.E. Alharasis, Antecedents and outcomes of innovative blockchain usage in accounting and auditing profession: an extended UTAUT model, *J. Organ. Change Manag.* 37 (5) (2024) 1102–1132, <https://doi.org/10.1108/JOCM-03-2023-0070>.
- A.S. Al-Adwan, H. Yaseen, A.F. Alkhwalidi, R.M.S. Jafar, M.A. Fauzi, A. Abdullah, Treasure hunting for brands: metaverse marketing gamification effects on purchase intention, WOM, and loyalty, *J. Glob. Mark.* (2025) 1–25, <https://doi.org/10.1080/08911762.2025.2463897>.
- Al-Abdallah, G., Maaroo, S., & Eid, M. A. H. (2024). Unveiling the tiktok sponsored content effect in Iraq: The mediating role of source credibility in shaping female purchase intentions for beauty products. *Journal of Marketing Communications*, 1-28.
- B. Palese, A. Usai, The relative importance of service quality dimensions in E- commerce experiences, *Int. J. Inf. Manage.* 40 (2018) 132–140.
- Bachwani, S., Mishra, A., & Maity, M. (2025). Influencers as strategic communication sources: impact of their characteristics on consumer purchase intentions—a meta-analytic structural equation model. *Journal of Communication Management*.
- D. Dwidienawati, D. Tjahjana, S.B. Abidinagoro, D. Gandasari, Customer review or influencer endorsement: which one influences purchase intention more? *Heliyon* 6 (11) (2020) e05543 <https://doi.org/10.1016/j.heliyon.2020.e05543>.
- Espejo, L., Perez, N., Mendoza, C., & Gagarin, Y. (2024). A systematic review on unique characteristics of generation Z and their impact on purchasing decisions. *Journal of Ecohumanism*, 4(1), 12-25.
- F. Rasty, S.H. Mirghafoori, S. Saeida Ardekani, P. Ajdari, Trust barriers to online shopping: investigating and prioritizing trust barriers in an intuitionistic fuzzy environment, *Int. J. Consum. Stud.* 45 (5) (2021) 1030–1046.
- H. Li, X. Wang, S. Wang, W. Zhou, Z. Yang, The power of numbers: an examination of the relationship between numerical cues in online review comments and perceived review helpfulness, *J. Res. Interact. Mark.* 17 (1) (2023) 126–139, <https://doi.org/10.1108/JRIM-09-2021-023>.
- I. Ventre, D. Kolbe, The impact of perceived usefulness of online reviews, trust and perceived risk on online purchase intention in emerging markets: a Mexican perspective, *J. Int. Consum. Mark.* 32 (4) (2020) 287–299.
- Kelly, A. E. (2024). The sustainability and contribution of Generation Z influenced by hedonic and utilitarian values to use mobile money services for fee payment. *Telematics and Informatics Reports*, 14, 100145.
- L. Gao, I. Simonson, The positive effect of assortment size on purchase likelihood: the moderating influence of decision order, *J. Consum. Psychol.* 26 (4) (2016) 542–549, <https://doi.org/10.1016/j.jcps.2015.12.002>.
- M.V. de Villiers, A. Visenza, N. Phiri, Importance of location and product assortment on flea market loyalty, *Serv. Ind. J.* 38 (11–12) (2018) 650–668, <https://doi.org/10.1080/02642069.2017.1410541>.
- P. Kautish, R. Sharma, Managing online product assortment and order fulfillment for superior e-tailing service experience: an empirical investigation, *Asia Pac. J. Mark. Logist.* 31 (4) (2019) 1161–1192, <https://doi.org/10.1108/APJML-05-2018-0167>.
- P. Rita, T. Oliveira, A. Farisa, The impact of e-service quality and customer satisfaction on customer behavior in online shopping, *Heliyon* 5 (10) (2019) e02690, <https://doi.org/10.1016/j.heliyon.2019.e02690>.
- R. Boardman, H. McCormick, Attention and behaviour on fashion retail websites: an eye-tracking study, *Inf. Technol. People* 35 (7) (2022) 2219–2240, <https://doi.org/10.1108/ITP-08-2020-0580>.

- R.A. Pop, E. Hl'edik, D.C. Dabija, Predicting consumers' purchase intention through fast fashion mobile apps: the mediating role of attitude and the moderating role of COVID-19, *Technol. Forecast Soc. Change.* 186 (2023) 122111, <https://doi.org/10.1016/j.techfore.2022.122111>.
- Radhi, M. N. M., Omar, R. M. N. R., Abdullah, W. N. F. W., & Ngali, N. (2024). A Conceptual Review on the Influence of Social-Media Influencers Towards Generation-Z TikTok Users' Food Purchase Intentions. *Asian Journal of Research in Education and Social Sciences*, 6(S1), 1-7.
- S. Chatterjee, R. Chaudhuri, D. Vrontis, A. Thrassou, The influence of online customer reviews on customers' purchase intentions: a cross-cultural study from India and the UK, *Int. J. Organ. Anal.* 30 (6) (2022) 1595–1623, <https://doi.org/10.1108/IJOA-02-2021-2627>.
- S.Y. Kim, J.U. Kim, S.C. Park, The effects of perceived value, website trust and hotel trust on online hotel booking intention, *Sustainability* 9 (12) (2017) 2262, <https://doi.org/10.3390/su9122262>.
- Sala, G. R., Do, B., Harrison, S., & Bartunek, J. (2025). An integrative conceptual review and theoretical framework of surprise in organizations. *Journal of Applied Psychology*.
- T. Escobar-Rodríguez, R. Bons' on-Fern' andez, Analysing online purchase intention in Spain: fashion e-commerce, *Inf. Syst. E-Bus. Manag.* 15 (2017) 599–622, <https://doi.org/10.1007/s10257-016-0319-6>.
- W. Chiu, H. Cho, E-commerce brand: the effect of perceived brand leadership on consumers' satisfaction and repurchase intention on e-commerce websites, *Asia Pac. J. Mark. Logist.* 33 (6) (2019) 1339–1362, <https://doi.org/10.1108/APJML-10-2018-0403>.
- W. Zhu, J. Mou, M. Benyoucef, Exploring purchase intention in cross-border E-commerce: a three stage model, *J. Retail. Consum. Serv.* 51 (2019) 320–330, <https://doi.org/10.1016/j.jretconser.2019.07.004>.
- W.C. Tsao, M.T. Hsieh, T.M. Lin, Intensifying online loyalty! the power of website quality and the perceived value of consumer/seller relationship, *Ind. Manag. Data Syst.* 116 (9) (2016) 1987–2010.
- X. Chen, Q. Huang, R.M. Davison, The role of website quality and social capital in building buyers' loyalty, *Int. J. Inf. Manage* 37 (1) (2017) 1563–1574, <https://doi.org/10.1016/j.ijinfomgt.2016.07.005>.
- Xu, J., Lin, T., Wang, Y., Jiang, W., Li, Q., Lu, T., ... & Yu, H. (2024). Homecfood gardening in modern cities: advances, issues, and future perspectives. *Frontiers in Sustainable Food Systems*, 8, 1391732.
- Y. Chen, M. Tingchi Liu, Y. Liu, A.W.Y. Chang, J. Yen, The influence of trust and relationship commitment to vloggers on viewers' purchase intention, *Asia Pac. J. Mark. Logist.* 34 (2) (2022) 249–267, <https://doi.org/10.1108/APJML-08-2020-0626>.