THE INTERPLAY BETWEEN E-COMMERCE OPTIMIZATION, CONSUMER TRUST, AND IMPULSIVE BUYING IN THAILAND: A COMPREHENSIVE ANALYSIS

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ARTICLE INFO	ABSTRACT

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This study investigates the burgeoning e-commerce market in Thailand, focusing on consumer trust, e-commerce optimization, and impulsive buying behaviors among Generation Z. With a significant portion of Thailand's population engaging in online shopping, the study aims to understand the factors influencing consumer trust and the impact of e-commerce optimization on impulsive buying. Using a quantitative approach, data were collected from 721 respondents aged 18-28 and data analysis using SEM-PLS. The main findings show that e-commerce optimization has a significant positive correlation with consumer trust (R^2 = 0.965) and impulsive buying (R^2 = 0.988). This research provides practical contributions for e-commerce practitioners to enhance their marketing and operational strategies based on these findings The results indicate a strong positive correlation between consumer trust and e-commerce optimization, The practical implications of these findings suggest that e-commerce platforms should focus on enhancing their security features and user-friendliness to foster consumer trust, which in turn can lead to increased impulsive buying. Additionally, businesses can utilize these insights to design more effective marketing strategies that leverage consumer trust to drive impulsive purchases. This research provides practical contributions for e-commerce practitioners to enhance their marketing and operational strategies based on these findings. Despite challenges such as consumer trust issues and logistical inefficiencies, the potential for e-commerce growth in Thailand remains substantial, driven by government support and private sector innovation.

1 Introduction

E-commerce has experienced significant growth worldwide, including in Thailand. With increased internet access and the adoption of digital technology, Thailand's e-commerce market has rapidly expanded in recent years. This growth has been driven by several factors, including changes in consumer behavior, increased smartphone penetration, and government support in building digital infrastructure. Thailand, with a population of over 69 million people, is one of the largest e-commerce markets in Southeast Asia. According to reports from We Are Social and Hootsuite, about 52% of Thailand's population made online purchases in 2022. The main sectors contributing to the growth of e-commerce in Thailand include fashion, electronics, beauty products, and food and beverages (Amornkitvikai et al., 2022) The Thai government has taken various steps to support the growth of e-commerce, such as improving digital infrastructure and providing incentives for small and medium-sized enterprises (SMEs) to transition to online platforms. Initiatives like "Thailand 4.0" aim to promote innovation and enhance the competitiveness of the country's digital economy. Additionally, the development of e-commerce in Thailand is also driven by advancements in financial technology (fintech), which facilitate digital payments, and the increasing spread of internet access, especially in rural areas.

However, despite its rapid growth, e-commerce in Thailand also faces several significant challenges. One of the main issues is the low level of consumer trust in online transactions (Choi & Mai, 2018) Many consumers are concerned about the security of personal data and online payments. Cases of fraud and data breaches on e-commerce platforms add to consumer skepticism about the safety of online shopping. To address this issue, e-commerce companies need to enhance their security systems and ensure that consumer data is well-protected. Additionally, educating consumers on how to shop online safely is crucial for increasing their trust. An uneven logistics infrastructure is a major challenge for e-commerce, especially in rural areas (Tim et al., 2021) The inability to efficiently reach all regions often results in delivery delays and additional costs. Although major logistics companies like DHL and Thailand Post have been working to expand their reach, there are still many areas that are difficult to access. Innovative solutions, such as using drones for deliveries in remote areas, could be one way to address this problem (Benarbia & Kyamaky, 2021)

The e-commerce market in Thailand is highly competitive with the presence of large international players like Lazada and Shopee. This makes it difficult for local businesses to compete, particularly in terms of price and customer service. Many small businesses are unable to offer competitive prices or fast delivery services like those provided by major platforms. To compete, local businesses need to find unique selling points or added value that can attract consumers, such as high-quality local products or personalized customer service (Gonda et al., 2021) Regulations related to e-commerce are still evolving and can sometimes be inconsistent. E-commerce businesses often face challenges in complying with various applicable rules, ranging from taxation to consumer protection. Frequently changing regulations make it difficult for businesses to follow and comply with all the requirements (Harmon, 2019) The government needs to play an active role in drafting clear and consistent regulations and providing adequate socialization to business operators.

The use of technology in e-commerce operations also remains a challenge. Although many businesses have transitioned to digital platforms, there is still a gap in the optimal use of technology (Costa et al., 2021) Many small businesses have not fully adopted advanced technologies to improve operational efficiency and customer experience. The use of big data, artificial intelligence (AI), and analytics can help e-commerce businesses better understand consumer needs and preferences and optimize their supply chains and marketing strategies. Another notable phenomenon within the e-commerce landscape is the rise of impulsive buying behavior among consumers. With the convenience of online shopping and the proliferation of targeted advertising, many consumers find themselves making unplanned purchases. Flash sales, limited-time offers, and personalized recommendations contribute to this impulsive buying trend (Husnain et al., 2019) While this can drive short-term sales, it also raises concerns about consumer spending habits and financial management.

Despite these challenges, the potential for e-commerce in Thailand remains significant. Continued government support and innovation from the private sector will be key to overcoming these challenges and maximizing the potential of e-commerce in Thailand (Laxman, 2021) The government needs to keep promoting the development of digital infrastructure, improving existing regulations, and providing incentives for small businesses to transition to online platforms. Meanwhile, e-commerce business operators need to innovate in addressing existing challenges, enhance the security of online transactions, and find new ways to reach consumers across the country (Choi & Mai, 2018) The combination of government support and private sector innovation will enable Thailand to overcome challenges and seize significant opportunities in the digital economy. Additionally, collaboration between various parties, including the government, private sector, and technology community, will play a crucial role in creating a healthy and sustainable e-commerce ecosystem in Thailand. Therefore, despite facing various challenges, the future of e-commerce in Thailand remains bright and full of potential..

2 Literature Review

The rapid growth of e-commerce has revolutionized the retail landscape, altering consumer behavior and the ways businesses operate. As e-commerce continues to expand, understanding the dynamics of customer trust and impulsive buying within this digital environment becomes increasingly important (Gulfraz et al., 2022). This literature review explores existing research on e-commerce, customer trust, and impulsive buying, highlighting key findings and identifying gaps for future research.

E-commerce Growth and Development

E-commerce has seen exponential growth over the past two decades, driven by advancements in technology, increased internet penetration, and changing consumer preferences. According to a report by Statista (2022), global e-commerce sales reached approximately $4.9 trillion in 2021, with projections to continue growing. The rise of mobile commerce (m-commerce) and social commerce has further fueled this growth, making it easier for consumers to shop online via smartphones and social media platforms (Sun & Xu, 2019)

Customer Trust in E-commerce

Customer trust is a critical factor in the success of e-commerce businesses. Trust in online transactions encompasses several dimensions, including security, privacy, and reliability. Research by (Gefen et al., 2003) indicates that trust significantly influences consumers' willingness to engage in online transactions. Key factors that affect customer trust include website quality, perceived security, and the reputation of the e-commerce platform.

Website Quality: A well-designed and user-friendly website can enhance customer trust (Seckler et al., 2015) Studies suggest that website design, ease of navigation, and information quality are crucial for building trust. Customers are more likely to trust and revisit websites that are aesthetically pleasing, easy to use, and provide comprehensive product information (Karimov et al., 2011)

Perceived Security: Concerns about data privacy and security are major barriers to online shopping shows that perceived security significantly impacts customer trust and purchase intentions (Kim, 2022) E-commerce platforms need to implement robust security measures, such as SSL encryption and secure payment gateways, to alleviate these concerns (Osita et al., 2022)

Reputation and Reviews: The reputation of an e-commerce platform, often reflected through customer reviews and ratings, plays a vital role in building trust. Positive reviews and high ratings can enhance perceived credibility and trustworthiness (Chevalier et al., 2006). Conversely, negative reviews can deter potential customers and erode trust (Talwar et al., 2021)

Customer Impulse Buying on E-commerce

Consumer demands have a significant impact on lifestyle choices, and one of the most popular habits people have to satisfy their requirements is shopping. (Amani et al., 2022) research A person's shopping lifestyle is how they use their time and finances for different goods, services, fashion, technology, entertainment, and educational opportunities (Rahman & Yu, 2019) A number of other elements, including personality, advertising influence, and views toward brands, all influence this buying lifestyle (Hazari & Sentha, 2023). Shopping Lifestyle demonstrates how one chooses to divide their income bemercetween different goods and services as well as between specific substitutes within related category divisions. One measure of the human elements that affect consumer behavior is lifestyle. A lifestyle can be understood as a pattern (Lubowiecki-Vikuk et al., 2021) The term "fashion involvement" describes one's level of interest in a certain category of fashion products (clothing, shoes, headgear, and accessories). The degree to which a person investigates various associated themes with fashion, such as awareness, knowledge, interest, and reaction, is referred to as fashion engagement (Ananda et al., 2019) customers that are interested in fashion. Individuals with high levels of confidence typically believe that fashion consumption is directly tied to self-confidence, which is why they are frequently solicited for their comments on fashion by the group (Madinga et al., 2020).The

study's findings demonstrate that involvement in fashion, discounts, and a shopping lifestyle all have an impact on impulsive purchase

Interrelationship Between E-commerce Optimization, Consumer Trust, and Impulsive Buying

The interplay between e-commerce optimization, consumer trust, and impulsive buying is complex and multifaceted (Kathuaria & Bakhsi, 2024) Optimizing e-commerce platforms involves improving various aspects such as user interface design, payment security, and customer service (Li et al., 2024) Research by Shamim et al (2020) suggests that these optimizations can enhance consumer trust, which in turn increases the likelihood of impulsive buying. This study aims to explore this relationship further by focusing on the specific context of Thailand's e-commerce market.
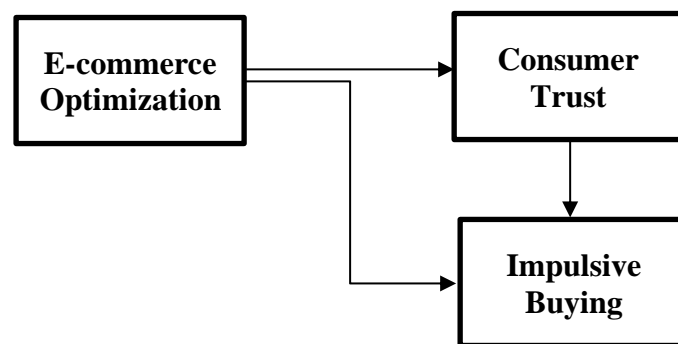

Table 1. Framework and Hypothesis

3   Methods

This research applies quantitative methods with the aim of exploring and analyzing the behavior and preferences of Generation Z in Thailand, aged between 18-28 years. The data collection instrument uses a Likert scale, which allows respondents to rate various statements based on their level of agreement, thereby facilitating the quantification of attitudes and perceptions. A total of 721 respondents were selected through a purposive sampling technique, which allows the selection of individuals who specifically fit the research criteria, ensuring the relevance and validity of the data collected. The collected data was then processed using the SEM-PLS (Structural Equation Modeling - Partial Least Squares) method,. SEM-PLS was chosen because of its ability to handle complex models with many latent variables and overcome problems multicollinearity and small sample size (Hair et al., 2016). This method allows researchers to test and validate causal relationships between variables more efficiently and in-depth, providing more comprehensive insight into the behavioral patterns and tendencies of generation Z in Thailand.

4   Results and Discussion

Results and Discussion are the most important parts of an article. In this section, authors are required to be as detailed as possible in presenting explanations of the results of research activities and observations or work carried out.
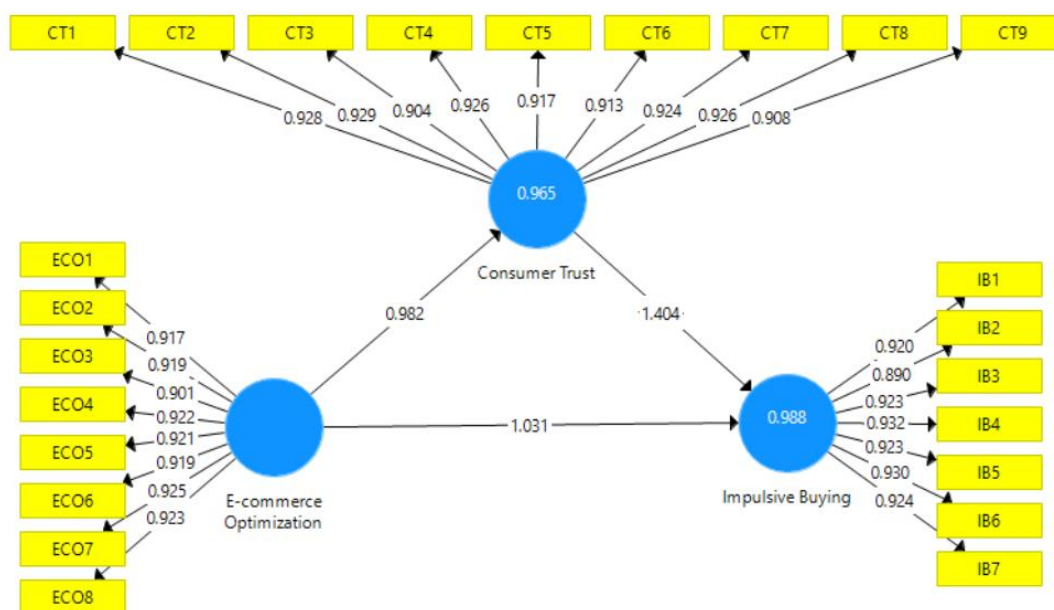
Figure 1. Partial Least Square

The figure displays the Partial Least Squares (PLS) model which consists of three constructs: Consumer Trust, E-commerce Optimization, and Impulsive Buying. Each construct is measured by several indicators represented by yellow boxes. Consumer Trust is measured by nine indicators (CT1-CT9) with factor loadings varying between 0.904 to 0.929, indicating that all of these indicators have a strong and consistent contribution to this construct. Consumer Trust has a strong positive correlation with E-commerce Optimization (0.982) and a very weak negative correlation with Impulsive Buying (-0.038), indicating that increased consumer trust is more correlated with e-commerce optimization than with impulse buying.

E-commerce Optimization is measured by eight indicators (ECO1-ECO8) with loading factors between 0.901 to 0.925, indicating that these indicators consistently contribute to the construct. E-commerce optimization has a very strong influence on Impulsive Buying with a path coefficient of 1.031, indicating that the better the e-commerce optimization, the more likely consumers are to make impulse purchases. Impulsive Buying is measured by seven indicators (IB1-IB7) with loading factors ranging from 0.890 to 0.930, indicating that these indicators consistently measure this construct well. Overall, this model shows that e-commerce optimization has a significant influence on impulse buying and consumer trust. However, consumer confidence is more correlated with e-commerce optimization than with impulse purchases.

Table 2. Outer Loading

	Consumer Trust	**E-commerce Optimization**	**Impulsive Buying**
CT1	0.928		
CT2	0.929		
CT3	0.904		
CT4	0.926		
CT5	0.917		

CT6	0.913		
CT7	0.924		
CT8	0.926		
CT9	0.908		
ECO1		0.917	
ECO2		0.919	
ECO3		0.901	
ECO4		0.922	
ECO5		0.921	
ECO6		0.919	
ECO7		0.925	
ECO8		0.923	
IB1			0.920
IB2			0.890
IB3			0.923
IB4			0.932
IB5			0.923
IB6			0.930
IB7			0.924

Outer Loading of CT1 to CT9 all have loading factors above 0.9, except CT3 which is slightly below but still above 0.7. All of these indicators are very strong in measuring the Consumer Trust construct. Each indicator consistently illustrates consumer trust in e-commerce platforms well. ECO1 to ECO8 all have loading factors above 0.9, with ECO3 slightly above 0.9 These indicators are very relevant and powerful in measuring how well an e-commerce platform is optimized. Each indicator contributes significantly to the assessment of e-commerce optimization. IB1 to IB7 have high loading factors, although IB2 is slightly lower (0.890) than the others, remaining above the general limit of 0.7. All of these indicators are very good at measuring the Impulsive Buying construct. Each indicator well reflects consumers' impulse buying behavior on e-commerce platforms.

High factor loadings in all constructs indicate that these indicators are consistent and relevant in measuring their respective latent constructs. With high outer loading, we can be confident that this model has good reliability and validity in measuring the identified constructs. Strong outer loading supports the path analysis carried out previously, strengthening the conclusion that good e-commerce optimization will increase impulse purchases, with consumer trust as an important basis in e-commerce optimization. Overall, these indicators are very reliable and significant in measuring each construct, providing strong validity to the PLS model used.

Table 3. Construct Validity and Realibility

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Consumer Trust	0.977	0.977	0.980	0.846

E-commerce Optimization	0.974	0.974	0.977	0.844
Impulsive Buying	0.970	0.970	0.975	0.847

Alpha is a measure of the reliability or internal consistency of a construct. A Cronbach's Alpha value higher than 0.70 is considered good. In the table above, all constructs have very high values (more than 0.97), indicating that the items measuring each construct are very consistent with each other. rho_A is an alternative to Cronbach's Alpha that also measures internal consistency. The rho_A values in this table are also very high, the same as Cronbach's Alpha, indicating excellent internal consistency for the three constructs.

Composite Reliability measures the reliability of the construct by considering the factor loading of each item. A value of more than 0.70 indicates good reliability. In this table, all Composite Reliability values above 0.97 indicate that all constructs are very reliable. AVE measures the amount of variance captured by a construct relative to the amount of variance caused by measurement error. An AVE value of more than 0.50 indicates good convergent validity. The AVE values in this table are above 0.84 indicating that each construct is able to explain most of the variance of its indicators, indicating excellent convergent validity. Overall, the values shown in the table indicate that all constructs (Consumer Trust, E-commerce Optimization, and Impulsive Buying) have very high internal consistency and excellent convergent validity.

Table 3. R-Square

	R Square	R Square Adjusted
Consumer Trust	0.965	0.965
Impulsive Buying	0.988	0.988

R Square, also known as the coefficient of determination, indicates the proportion of the variance in the dependent variable that is predictable from the independent variables. For Consumer Trust, an R^2 value of 0.965 means that 96.5% of the variance in Consumer Trust can be explained by the predictors in the model. For Impulsive Buying, an R^2 value of 0.988 means that 98.8% of the variance can be explained by the model. Adjusted R Square adjusts the R^2 value for the number of predictors in the model, providing a more accurate measure when comparing models with different numbers of predictors. The Adjusted R^2 values for both Consumer Trust and Impulsive Buying are the same as their respective R^2 values, indicating that the number of predictors in the models is optimal and there is no overfitting.

Both Consumer Trust and Impulsive Buying have very high R Square values (0.965 and 0.988, respectively), suggesting that the models are very good at explaining the variance in these dependent variables.The fact that the Adjusted R Square values are identical to the R Square values indicates that the models are well-specified with the right number of predictors, ensuring that the explained variance is both substantial and reliable.

The research findings indicate that e-commerce optimization significantly affects consumer trust and impulsive buying. For instance, the positive correlation between consumer trust and e-commerce optimization ($R^2 = 0.965$) highlights the importance of

improving the security and user-friendliness of e-commerce platforms. Further discussion on how these results support or challenge existing theories, as well as practical implications for e-commerce practitioners, is also included. The limitations of this study, such as the sample being limited to one country, can be addressed by future research that includes more variables and regions.

Table 4. Appendix

ECO 1	I find this e-commerce platform easy to navigate.
ECO2	My experience while shopping online on this platform is not confusing
ECO3	I feel safe conducting financial transactions on this platform.
ECO4	My personal information is well-protected on this platform.
ECO5	I can view reviews and ratings of products from other buyers
ECO6	Product reviews and ratings help me make purchase decisions
ECO7	Various payment methods are available to facilitate me
ECO8	The payment process on this platform is quick and efficient
CT1	I generally trust this platform for my shopping needs
CT2	I would recommend this platform to others
CT3	This platform provides trustworthy payment methods.
CT4	My past shopping experiences on this platform have been satisfactory
CT5	have never encountered major issues while CT shopping on this platform
CT6	The product descriptions on this platform match the products received
CT7	This platform has a good reputation among consumers
CT8	I hear many positive reviews about this platform
CT9	I am satisfied with my shopping experience on this platform
IB1	Discounts and promotions often drive me to make impulsive purchases.
IB2	An attractive user interface makes me want to keep exploring products
IB3	quick and easy purchase process makes me more likely to buy products impulsively
IB4	Product recommendations on this platform often catch my attention and lead to impulsive purchases
IB5	Positive testimonials and reviews from other users make me more likely to buy products impulsively
IB6	When I have leisure time, I tend to spend it browsing the e-commerce platform and making impulsive purchases.
IB7	Social media often influences my impulsive buying decisions on the e-commerce platform

Table 4 provides a comprehensive overview of the specific indicators used to measure the constructs of E-commerce Optimization (ECO), Consumer Trust (CT), and Impulsive Buying (IB). Each indicator is designed to capture the nuanced aspects of these constructs, contributing to a detailed understanding of the e-commerce behaviors and perceptions of Generation Z in Thailand. Below is the detailed narrative for each set of indicators.

E-Commerce Optimization (ECO): This construct includes indicators that assess the usability, safety, and efficiency of the e-commerce platform. It covers aspects such as ease of navigation, clarity of the shopping experience, security of financial transactions, protection of personal information, and the effectiveness of reviews and ratings in aiding

purchase decisions. Additionally, it evaluates the availability and efficiency of various payment methods.

Consumer Trust (CT): This construct focuses on the level of trust and satisfaction consumers have with the e-commerce platform. Indicators include general trustworthiness, likelihood of recommending the platform to others, reliability of payment methods, satisfaction with past shopping experiences, consistency between product descriptions and received products, and the platform's reputation and positive reviews among consumers.

Impulsive Buying (IB): This construct examines factors that drive impulsive buying behavior on the e-commerce platform. Indicators include the influence of discounts and promotions, the impact of an attractive user interface, the ease and speed of the purchase process, the effect of product recommendations, the role of positive testimonials and reviews, the tendency to browse and purchase during leisure time, and the influence of social media on impulsive buying decisions.

5 Conclusion

The findings of this study underscore the critical importance of consumer trust and e-commerce optimization in driving the growth of the e-commerce sector in Thailand, particularly among Generation Z. The high positive correlation between consumer trust and e-commerce optimization indicates that efforts to enhance website quality, ensure data security, and maintain platform reputation are pivotal. Furthermore, the significant influence of e-commerce optimization on impulsive buying behavior suggests that well-optimized platforms can effectively capture and sustain consumer interest, leading to increased sales. To fully harness the potential of e-commerce in Thailand, businesses must prioritize building robust, user-friendly, and secure online platforms. Additionally, addressing logistical challenges and improving digital infrastructure, especially in rural areas, will be crucial. Government initiatives such as "Thailand 4.0" and continued support for SMEs transitioning to online platforms are essential for creating a thriving digital economy.

In conclusion, while the e-commerce market in Thailand faces several challenges, the opportunities for growth and innovation are immense. By fostering consumer trust and optimizing e-commerce platforms, businesses can not only enhance their competitiveness but also contribute significantly to the overall economic development of Thailand. Future research should focus on longitudinal studies to track changes over time and explore the impact of emerging technologies on consumer behavior in e-commerce.

To enhance the e-commerce environment in Thailand, platforms should strengthen security measures by improving data protection and secure payment gateways, and improve platform usability through user-friendly interfaces and mobile optimization. Encouraging user-generated content and prominently displaying positive reviews can build trust, while targeted promotions and social media engagement can drive impulsive buying. Simplifying the checkout process and providing flexible payment options will streamline purchases. Addressing logistical challenges by improving delivery infrastructure and maintaining transparent shipping policies is crucial. Building brand loyalty, supporting local SMEs, and staying updated with consumer trends and technological innovations will further enhance the shopping experience and competitiveness of e-commerce platforms in Thailand.

References

Amani, A. R., Komaladewi, R., & Budhyawan, T. (2022). Social Media Dan Customer Relationship Marketing Sebagai Stimulus Dalam Meningkatkan Purchase Intention. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (Mea)*, *6*(2), 1746-1755.

Amornkitvikai, Y., Tham, S. Y., Harvie, C., & Buachoom, W. W. (2022). Barriers and factors affecting the e-commerce sustainability of Thai micro-, small-and medium-sized enterprises (MSMEs). *Sustainability*, *14*(14), 8476.

Ananda, A. S., Hernández-García, Á., Acquila-Natale, E., & Lamberti, L. (2019). What makes fashion consumers "click"? Generation of eWoM engagement in social media. *Asia Pacific Journal of Marketing and Logistics*, *31*(2), 398-418.

Benarbia, T., & Kyamakya, K. (2021). A literature review of drone-based package delivery logistics systems and their implementation feasibility. *Sustainability*, *14*(1), 360.

Choi, Y., & Mai, D. Q. (2018). The sustainable role of the e-trust in the B2C e-commerce of Vietnam. *Sustainability*, *10*(1), 291.

Chevalier, J. A., Dover, Y., & Mayzlin, D. (2018). Channels of impact: User reviews when quality is dynamic and managers respond. *Marketing Science*, *37*(5), 688-709.

Costa, J., & Castro, R. (2021). SMEs must go online—E-commerce as an escape hatch for resilience and survivability. Journal of Theoretical and Applied Electronic Commerce Research, 16(7), 3043-3062.

Gonda, T., Angler, K., & Csóka, L. (2021). The role of local products in tourism. European countryside, 13(1), 91-107.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS quarterly*, 51-90.

Gulfraz, M. B., Sufyan, M., Mustak, M., Salminen, J., & Srivastava, D. K. (2022). Understanding the impact of online customers' shopping experience on online impulsive buying: A study on two leading E-commerce platforms. *Journal of Retailing and Consumer Services*, *68*, 103000.

Harmon, P. (2019). Business process change: a business process management guide for managers and process professionals.

Hazari, S., & Sethna, B. N. (2023). A comparison of lifestyle marketing and brand influencer advertising for generation Z Instagram users. *Journal of Promotion Management*, *29*(4), 491-534.

Husnain, M., Rehman, B., Syed, F., & Akhtar, M. W. (2019). Personal and in-store factors influencing impulse buying behavior among generation Y consumers of small cities. Business Perspectives and Research, 7(1), 92-107.

Kathuria, A., & Bakshi, A. (2024). Influence of website quality on online impulse buying behaviour: a systematic review of literature. Marketing Intelligence & Planning.

Karimov, F. P., Brengman, M., & Van Hove, L. (2011). The effect of website design dimensions on initial trust: A synthesis of the empirical literature. *Journal of Electronic Commerce Research*, *12*(4).

Kim, S. S. (2020). Purchase intention in the online open market: Do concerns for e-commerce really matter?. *Sustainability*, *12*(3), 773.

Laxman, L. K. P. (2021). Legal and regulatory challenges in facilitating a sustainable ASEAN E-commerce sector. Handbook of Research on Innovation and Development of E-Commerce and E-Business in ASEAN, 1-25

Li, W., Xiao, J. X., & Zhang, M. T. (2024, June). Optimizing Urban e-Commerce Experiences: A Cross-Cultural Interface Design Approach for Enhanced Connectivity and Consumer Engagement. In International Conference on Human-Computer Interaction (pp. 219-234). Cham: Springer Nature Switzerland.

Lilavanichakul, A. (2020). Development of agricultural e-commerce in Thailand. FFTC J. Agric. Policy, 1, 7-16.

Lubowiecki-Vikuk, A., Dąbrowska, A., & Machnik, A. (2021). Responsible consumer and lifestyle: Sustainability insights. *Sustainable production and consumption*, *25*, 91-101.

Madinga, N. W., Maziriri, E. T., Dondolo, B. H., & Chuchu, T. (2020). Modelling fashion clothing involvement among gay consumers in South Africa. *Cogent Social Sciences*, *6*(1), 1760415.

Osita, G. C., Chisom, C. D., Okoronkwo, M. C., Esther, U. N., & Vanessa, N. C. (2022). Application of Emerging Technologies in Mitigation of e-Commerce Security Challenges. *CCU J. Sci*, *2*, 2734-3766.

Pelet, J. E., & Papadopoulou, P. (2015). Social media and m–commerce. *International Journal of Internet Marketing and Advertising*, *9*(1), 66-84.

Rahman, O., & Yu, H. (2019). Key antecedents to the shopping behaviours and preferences of aging consumers: A qualitative study. *Journal of Fashion Marketing and Management: An International Journal*, *23*(2), 193-208.

Seckler, M., Heinz, S., Forde, S., Tuch, A. N., & Opwis, K. (2015). Trust and distrust on the web: User experiences and website characteristics. *Computers in human behavior*, *45*, 39-50.

Shamim, K., Azam, M., & Islam, T. (2024). How do social media influencers induce the urge to buy impulsively? Social commerce context. Journal of Retailing and Consumer Services, 77, 103621.

Talwar, M., Talwar, S., Kaur, P., Islam, A. N., & Dhir, A. (2021). Positive and negative word of mouth (WOM) are not necessarily opposites: A reappraisal using the dual factor theory. *Journal of Retailing and Consumer Services*, *63*, 102396.

Tim, Y., Cui, L., & Sheng, Z. (2021). Digital resilience: How rural communities leapfrogged into sustainable development. *Information Systems Journal*, *31*(2), 323-345.