

-RESEARCH ARTICLE-

## TRANSCENDING BORDERS: UNPACKING E-COMMERCE ADOPTION IN BOTSWANA AND ITS IMPLICATIONS FOR OTHER DEVELOPING ECONOMIES

**Gaone Geoffrey Seleka**

Graduate School of Business Administration  
University of Zambia, School of Business  
Email: [selekag@gmail.com](mailto:selekag@gmail.com)

**Mubanga Mpundu**

University of the Western cape, Faculty of Economics  
and Management Sciences, Department of Economics,  
P/Bag X17, Robert Sobukwe Road, Belville, 7535,  
Cape Town, South Africa.  
Email: [mmpundu@uwc.ac.za](mailto:mmpundu@uwc.ac.za)

### —Abstract—

The primary objective of this study was to investigate the impact of factors such as word of mouth, social influence, and technology on the adoption of e-commerce. The study participants consisted of e-commerce users from Botswana. This study utilised a cross-sectional research design and employed a quantitative research approach. The questionnaire was modified to collect data from participants. The questionnaires were created using a 5-point Likert scale, and data was collected through convenience sampling. The study's response rate was 66.7%. The collected data was analysed using the smart PLS-4 software. The results of the study indicated that e-word of mouth, social influence, and technology all had a significant positive impact on the adoption of e-commerce. This study thoroughly examines the implications of e-commerce in developing countries. The findings have significant implications for future academic research.

**Keywords:** E-commerce, Developing Countries, Social Influence, Botswana, Smart PLS 4.

## 1. INTRODUCTION

E-commerce plays a crucial role in driving economic development and ensuring the sustainability of a country (Akanibo & Abbiyesuku, 2021). Research has identified e-commerce as a significant driver of economic growth in developing nations. E-commerce technology has a positive impact on various industries in developing countries. The adoption behaviour of people in developing countries is significantly impacted by this (Sun et al., 2023). The adoption of e-commerce in developing countries is encountering various challenges, as highlighted by Ahmad and Siraj (2018). An obstacle faced by developing countries in adopting e-commerce is the insufficient skills to effectively manage these technologies (Kabanda & Brown, 2017). However, their lack of capacity and experience hinders their ability to effectively manage the new technology. Due to the challenges faced by developing countries, the demand for technology in these nations is adapting to meet the needs of the global market. The adoption of e-commerce holds significant importance in developing countries as it has the potential to generate new employment opportunities, thereby fostering economic growth (Mazikana, 2023).

Past studies have provided various explanations for e-commerce. Organisations and individuals utilise online platforms to conduct various transactions, such as exchanging information, services, products, or engaging in transfers, sales, or purchases (Ghonyan, 2020). In general, e-commerce is a cost-effective method for conducting business. It is unnecessary to establish a tangible infrastructure for conducting business (Hood et al., 2020). In their study, Billewar et al. (2022) discuss the ability to establish a virtual presence and conduct business globally. The adoption of e-commerce technology has the potential to solve various problems faced by developing countries. The resolution of education and health concerns is of utmost importance. Developing countries face challenges in fully adopting e-commerce, which limits their ability to benefit from it on a large scale.

Various factors in developing countries impact the adoption of e-commerce. In certain developing nations, the government exercises control over the media and the dissemination of information through alternative channels. Additionally, other countries offer the option of chat on e-commerce platforms (Mohammed et al., 2016). E-commerce has a significant impact on the economic landscape of developing countries. Countries that do not adopt e-commerce may encounter challenges in both economic and social development. E-commerce offers significant economic growth opportunities for developing countries (Oláh et al., 2019).

The internet has significantly influenced people's lifestyles over the past two decades. When it comes to shopping, customers prefer online options when purchasing various commodities. The business is generating revenue in the multi-billion range (Sharma & Jhamb, 2020). A significant factor contributing to the substantial revenue is the widespread preference for social media as a means of communication. Some well-

known social media platforms include Facebook, Twitter, Instagram, and others. A significant number of individuals utilise these social media applications and websites on a regular basis. Social media networks and applications have enabled the use of e-WOM, which refers to reviews shared on e-commerce websites (Kinas et al., 2023).

The adoption process has been simplified thanks to the assistance of e-commerce. According to reports, a significant majority of customers rely on blogs and reviews when making purchasing decisions or using services. Therefore, e-WOM plays a crucial role in the decision-making process as it directly impacts customer satisfaction (Pradana et al., 2022). In addition, elements like social influence and technology adoption have an impact on the adoption of e-WOM. The aim of this study is to analyse the impact of social influence, e-WOM, and technology on the adoption of e-commerce in Botswana. This study also examines the impact of e-commerce in developing countries.

## 2. LITERATURE REVIEW

### 2.1 Adoption Behaviour of E-Commerce

E-commerce is the result of online transactions involving the exchange, sale, or purchase of services and information. Researchers have provided a definition for e-commerce, which refers to “the process of buying, selling, transferring, or exchanging products, services, and/or information via computer networks, including the internet” (Treiblmaier & Sillaber, 2021). Zainal and Hamdan (2023) see e-commerce as an innovative catalyst that can greatly enhance the role of entrepreneurs in developing countries. Most e-commerce transactions occur between businesses (B2B) and businesses and consumers (B2C). This happens when businesses interact with customers or when businesses engage with other businesses.

Several social media networks, such as Skype, Twitter, and WhatsApp, have significantly reshaped social media and e-commerce using mobile apps. E-commerce is also referred to as M-commerce or mobile commerce. These terms describe the occurrence of online transactions (Ayob, 2021). Academics have posited that the significance of e-commerce cannot be overstated in the context of global market success. Additionally, it is regarded as a crucial approach for achieving rapid expansion. Companies can efficiently reach customers worldwide through e-commerce, even in developing countries (Lestari, 2019). The e-commerce system consists of two main components. This component focuses on utilising electronic methods to advertise and promote services and products. On the other hand, the second system is utilised for the distribution and payment of products at both the global and local levels (Shemi & Procter, 2018).

Several previous studies (Nurlinda et al., 2020; Octavia et al., 2020) have examined the relationship between financial performance and the adoption of e-commerce, with a particular focus on political considerations. Several previous studies have shown a

preference for utilising e-commerce to facilitate alliance formation, development, innovation, cost reduction, and differentiation. Researchers have found a clear correlation between the adoption of e-commerce and various performance indicators. Various indicators of performance encompass the establishment of relationships, customer satisfaction, sales performance, and efficiency. Researchers have found a direct correlation between the success of businesses in developing nations and their implementation of e-commerce. Additionally, the ability to expand and enter new markets is contingent upon the influence of e-commerce. This technology facilitates the integration of suppliers and customers (Gao et al., 2023).

Utilising technology is crucial for reaping the advantages of information technology. Past studies have consistently reported that technology plays a significant role in influencing behavioural intentions. In their study, Chandra and Kumar (2018) discuss the process of technological adoption and emphasise the importance of institutions in making informed decisions. Several studies have been conducted in the past to explain the adoption model of behavioural intention technology. Factors such as social influence and electronic word of mouth play a significant role in shaping the adoption of e-commerce among the target market (Guzzo et al., 2016).

## 2.2 Social Influence and Adoption Behaviour of E-Commerce

Past studies have defined social influence as the modification of an individual's behaviour, feelings, or attitude through interaction with or influence from others (Flache et al., 2017). Alternatively, social influence is described by Cao and Niu (2019) as "an individual perceives that important others believe he or she should use the new system." This construct is based on the fundamental idea that has shaped social influence in various ways, such as critical mass, social capital, social identity, group norms, and subjective norms. The integration of social influence has been observed to have an impact on the implementation of e-commerce. Some researchers have suggested that e-commerce plays a significant role in shaping consumer preferences and social influence (Sarkar et al., 2019). However, social influence can also impact the adoption of e-commerce in developing countries.

The integration of e-commerce and social influence relies on personal and interpersonal factors. Websites for e-commerce can use data on social influence to aid users in their decision-making process (Abdullah et al., 2020). Social influence in e-commerce can significantly impact the development of marketing strategies in developing countries. Alternatively, various strategies can be implemented to foster interaction between consumers and organisations in developing countries through the use of e-commerce (Rosário & Raimundo, 2021). There are various approaches to studying the impact of social influence on e-commerce and the benefits it provides. Organisations in developing countries can offer reliable and personalised product reviews in the e-

commerce industry, ensuring high quality and trust for customers making purchasing decisions. Organisations that interact with customers can obtain detailed and immediate responses by utilising e-commerce (Reardon et al., 2021). This gives them the opportunity to forecast the market in various ways and well in advance.

The e-commerce website can also identify influential opinion leaders who have a significant impact on customers. By utilising opinion leaders, marketers can enhance the effectiveness of social networks (Tobon & García-Madariaga, 2021). Several previous studies have examined the utilisation of e-commerce on various websites and its influence on customers' decision-making capabilities. Past studies have primarily focused on e-mail and web communities to identify social networks. These networks engage in various forms of interaction, such as forwarding e-mails, commenting, posting, and reading (Bhukya & Paul, 2023).

Research has examined the impact of social influence on individuals' use of e-commerce platforms during the purchasing process, specifically focusing on the influence of close friends and family members (Mariani & Lamarauna, 2017). Furthermore, customers' behavioural intentions can be influenced by social factors when it comes to adopting new technologies. Social factors are capable of influencing target customers' opinions. The role of social insurance is highly significant when it comes to technological acceptance. The system's usage is directly impacted (Erkan & Evans, 2016); according to Mariani and Lamarauna (2017), the intention to adopt or use a technological product is greatly influenced by social factors. A person is more likely to make a purchase from an e-commerce platform if their close family members have previously used the same platform (Chen et al., 2021). Therefore, we propose the following hypothesis:

**Hypothesis 1:** *There is a significant impact of social influence on intention to adopt E-commerce.*

### 2.3 Technological Opportunism and Adoption Behaviour of E-Commerce

Organisations must prioritise factors that contribute to developing competitive advantage through the utilisation of capabilities and resources. The resources mentioned encompass various assets, including human capital, equipment, plants, and technological aspects such as licences and patents (Kamasak, 2017). Organisations can leverage their assets through various processes, such as market sensing, to effectively utilise their capabilities. The organization's ability to respond to and make use of new technology is a crucial factor in technology adoption (Bullini Orlandi et al., 2020). Organisations must adopt technology to mitigate threats and meet market demands (Lucia-Palacios et al., 2016). Furthermore, the integration of new technology is crucial for attaining a competitive edge. In a recent study, Lahkani et al. (2020) emphasised the significance of e-commerce in enhancing resilience. The use of internet-based

technology provides access to revenue, inventory management, and financial data.

Research has made significant progress in various disciplines, including strategic development. It is widely recognised in literature that organisations with greater capabilities have a significant advantage in understanding customer behaviour. This understanding can be leveraged to develop effective marketing strategies and gain a competitive edge (Ferraris et al., 2019). At this stage, the adoption of technology can have a significant impact. An organisation can gain a strategic advantage through its technological capability, which allows it to outperform competitors (Haseeb et al., 2019). The organisational ability to adopt technology is a crucial factor in gaining a competitive advantage. Organisations must incorporate technology into their strategies to effectively analyse the market and adapt their business practices accordingly. In today's digital age, organisations have the convenience of utilising e-commerce to effectively connect with and persuade their customers. The widespread use of Internet technology has facilitated the global adoption of e-commerce in both developed and developing countries (Al-Omari et al., 2022).

Organisations with environmental awareness can drive change by exerting pressure. Organisations in developing countries must stay informed about technological changes to gain a competitive advantage (Kim, 2019). Researchers have proposed that decision-making within organisations is seen as a valuable opportunity (Al-Omari et al., 2022). In this scenario, it is crucial for organisational decision-makers to take proactive measures and make critical decisions regarding the implementation of technology, such as adopting e-commerce. This will facilitate the growth of their organisations and enable them to reach customers on a global scale (Li et al., 2023). Therefore,

**Hypotheses 2:** *There is a significant impact of technological opportunism on intention to adopt E-commerce.*

## 2.4 E-WOM and Adoption Behaviour of E-Commerce

In literature, the term E-WOM is associated with the act of sharing positive feedback about a product or service with people known to a customer through various electronic media platforms. Customers adopt E-WOM to assess the relevance, authenticity, and value of a product or service after viewing consumer reviews on a review platform. The content incorporates relevant evidence such as personal testimonials, visual media, and supporting documentation to substantiate the assertions made about a particular service or product (Siddiqui et al., 2021). In many cases, organisations find E-WOM to be advantageous due to its efficiency and effectiveness in reaching customers through the internet. In addition, the internet offers the chance to combine different demographics and values in order to better cater to customer needs (Yusuf et al., 2018).

Several studies have examined and evaluated the impact of e-WOM. Various factors



are examined when evaluating e-WOM, such as the credibility, adoption, and quality of the information, as well as purchase and adoption intention, among others (Daowd et al., 2021). It is intriguing how advertisers masquerade as product users online to promote positive e-WOM about the service or product. Further research is required to investigate the impact of e-WOM on various aspects, particularly in the context of developing nations. However, the e-WOM also has an impact on the impulse buying behaviour of online shoppers (Khan et al., 2023).

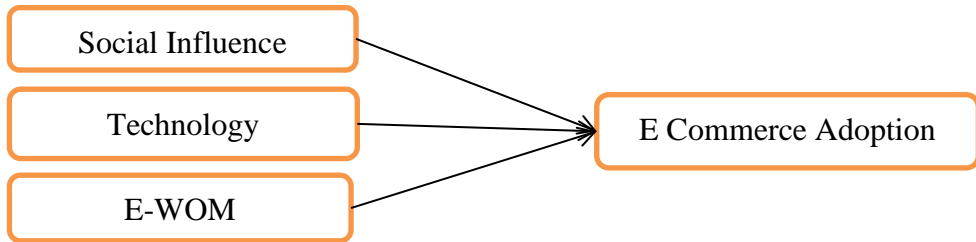
Assessing the impact of electronic word-of-mouth (e-WOM) on trust development and its influence on the adoption of information or technology is crucial. These factors may lead to the utilisation of services and products (Eneizan et al., 2020). Many individuals use cell phones to engage in online shopping. Studies have reported that social media plays a significant role in the dissemination of e-WOM. Researchers discussed the patterns of online shopping and their impact on shaping opinions and reviews. Subsequently, it impacts the customer's decision-making process (Wu & Lin, 2017). Many individuals believe that electronic communication, specifically electronic word-of-mouth, has a significant impact on customers' decision-making processes. The data found on social networking sites has the potential to significantly influence the adoption of technology (Erkan & Evans, 2016). The impact of e-WOM on the adoption of online shopping technology is substantial. There are multiple factors that can influence e-WOM. E-WOM can affect a person's intention to adopt a technology, but the effect will depend on how much they use the product. In a recent study by Abedi et al. (2020), it was found that E-WOM plays a significant role in influencing the adoption of e-commerce.

**Hypotheses 3:** *There is a significant impact of E-WOM on intention to adopt E-commerce.*

### 3. METHODOLOGY

This study employed a cross-sectional research design utilising a structured questionnaire. The study participants consisted of online shoppers from BOTSWANA. A questionnaire was distributed to 250 respondents through convenience sampling in this study. A self-administered technique was devised to gather the questionnaire data. The questionnaire was split into two sections. The initial section of the questionnaire focused on gathering demographic information from the participants. In contrast, the second part contained details regarding the study's variables. The questionnaire was modified using a 5-point Likert scale based on a thorough review of relevant literature. The e-WOM items used in this study were derived from Tanprajna and Ellyawati (2020), while the items related to social influence were adapted from Abubakar and Ahmad (2014). The technology items were taken from Ahmed et al. (2016), and the adoption of e-commerce was based on Datta's (2011) research. A total of 167

questionnaires were received from the respondents, resulting in a usable response rate of 66.7%. The questionnaire was analysed using Smart PLS 3.4. During the analysis, we utilised the SEM technique in Smart PLS.



#### 4. RESULTS

An examination of the study's hypothesis came after a two-step examination of the proposed framework. The purpose of this reciprocal process was to assess the dependability and accuracy of the research methodology. This testing approach is commonly referred to as the outer model approach. At the initial stage, we analyse reliability and validity using the outer model approach. We initiated the evaluation of reliability and validity by assessing factor loading. According to research by [Hair \(2009\)](#), a factor loading of 0.40 is considered acceptable. Items with factor loadings greater than 0.40 can be retained. Table 1 clearly shows that all items have factor loadings exceeding 0.40.

**Table 1: Factor Loading.**

	<b>E-AD</b>	<b>Social Influence</b>	<b>TECH</b>
E-AD1	0.948		
E-AD2	0.902		
E-AD3	0.916		
E-AD4	0.882		
E-WOM 4			
E-WOM1			
E-WOM2			
E-WOM3			
SI1		0.913	
SI2		0.929	
SI3		0.923	
TECH1			0.845
TECH2			0.915
TECH3			0.816

Afterward, we moved on to evaluating Cronbach Alpha and CR. Regarding this matter, it is worth noting that the benchmark figure for both Cronbach Alpha and composite reliability is 0.70 ([Hair Jr et al., 2017](#)). The statistical figures of CR and Cronbach Alpha in Table 2 exceed the benchmark figure. Thus, they are deemed



acceptable. This study also investigated the AVE values, which [Fornell and Larcker \(1981\)](#) suggested should be at least 0.50. The values of AVE are mentioned in Table 2, indicating that they exceed 0.50.

**Table 2: Reliability and Validity.**

	<b>Alpha</b>	<b>CR</b>	<b>AVE</b>
E-AD	0.933	0.952	0.832
E-WOM	0.906	0.933	0.776
Social Influence	0.913	0.944	0.85
TECH	0.837	0.895	0.739

This results in the assessment of discriminant validity. This evaluation can be analysed using the HTMT approach and the approach proposed by [Fornell and Larcker \(1981\)](#). Both approaches were utilised in this study. According to the criteria proposed by Fornell and Larcker, the values on the diagonal of the matrix should be greater than the remaining values, as indicated in Table 3. The matrix results indicate that this criterion has been met. As per the HTMT approach, it is recommended that the values should be below 0.90. Table 4 indicates that this criterion is also met. Thus, there is no concern regarding discriminant validity in this study. Upon careful evaluation of the various tests conducted, the outer model of the study has been successfully examined.

**Table 3: Fornel and Larker Approach.**

	<b>E-AD</b>	<b>E-WOM</b>	<b>Social Influence</b>	<b>TECH</b>
E-AD	0.912			
E-WOM	0.407	0.881		
Social Influence	0.305	0.575	0.922	
TECH	0.261	0.037	0.007	0.86

**Table 4: HTMT.**

	<b>E-AD</b>	<b>E-WOM</b>	<b>Social Influence</b>	<b>TECH</b>
E-AD				
E-WOM	0.419			
Social Influence	0.321	0.628		
TECH	0.251	0.139	0.082	

Subsequently, this study analysed the structural model of the research. At this point, we will analyse the R square value and the hypothesis put forth in the study. The proposed hypothesis is evaluated using t-values, while the nature of the relationship is assessed using beta values. To achieve this objective, a bootstrapping procedure was employed. All the results of the direct hypotheses are presented in Table 5. The results indicate that all proposed hypotheses have been accepted. The study's H1, H2, and H3 have been

accepted. Finally, the R square value was assessed using the structural model. This demonstrates the impact of predictive variables on the outcome variable. The data presented in Table 6 indicates that the adoption of e-commerce is influenced by 32.1% of the proposed independent variables of the study.

**Table 5: Direct Results.**

	<b>Beta</b>	<b>SD</b>	<b>T statistics</b>	<b>P values</b>
E-WOM -> E-AD	0.454	0.168	2.692	0.004
SI -> E-AD	0.325	0.185	1.752	0.04
TECH -> E-AD	0.306	0.13	2.361	0.009

**Table 6: R Square.**

	<b>R-square</b>
E-AD	0.321

## 5. DISCUSSION AND CONCLUSION

The progress of developing countries hinges on their ability to adopt technology. E-commerce has emerged as a significant technological advancement in recent decades. This technology has greatly facilitated customers in finding products that meet their needs. Alternatively, organisations can efficiently connect with their customers on a global scale. This study aims to investigate the impact of social influence, e-WOM, and technology on the adoption of e-commerce. The study was carried out in Botswana. The study's findings indicate that the adoption of e-commerce is greatly influenced by e-WOM. A potential explanation for these findings in the study is that individuals in both developing and developed countries frequently utilise social networking sites to maintain connections with their loved ones.

When individuals communicate with their loved ones, they also receive updates on various products or services. The act of sharing information online can leave a lasting impression on the listener, whether positive or negative. Based on this information, the listener will decide regarding future purchases of the product. In our current technological era, individuals strive to maintain constant communication with one another using various technological means. The information shared in this online connection has a profound impact on the adoption of e-commerce. In a study conducted by [Abedi et al. \(2020\)](#), similar findings were reported.

In a similar vein, [Mariani and Lamarauna \(2017\)](#) also found that social influence has a positive impact on the adoption of e-commerce, supporting the study's findings. In African countries, there exists a strong collective culture that places significant importance on the opinions of friends and family. The experiences shared by friends

and family members regarding online experiences can have a significant impact on adoption. The value placed on the opinions of friends and family is universal. If someone has a negative experience with a family member, they will likely avoid it in the future. In addition, society plays a role in shaping the norms and values of individuals. When considering the adoption of technology, individuals often take into account the societal norms and values that have been established. One can choose to accept or reject it based on these factors, as they are integral to culture.

In the end, the availability of technology and people with the necessary technological skills strongly influence the adoption of e-commerce in developing nations. Individuals are more likely to embrace technology when they have access to skilled personnel capable of installing the necessary hardware and software for the project. Additionally, this individual must possess the ability to address technological issues. In addition, the presence of technology is crucial for the acceptance and implementation of technology. Without adequate technological infrastructure, developing countries may face challenges in adopting e-commerce. Without the adoption of e-commerce technology, the progress and development of these developing countries may face significant challenges in attaining sustainable competitive advantage. Previous research by [Al-Omari et al. \(2022\)](#) yielded similar results.

## 6. IMPLICATIONS

This study has significant implications both in theory and practice. These practical implications are also relevant to Botswana. This study makes a valuable theoretical contribution by being one of the few quantitative studies to investigate the various factors that enhance the adoption of e-commerce. This study stands out from others as it focuses on the direct impact of social influence, e-WOM, and technology on the adoption of e-commerce. Unlike most previous studies, which relied on qualitative methods and literature reviews, this research takes a more quantitative approach. In addition, it is conducting groundbreaking research in the context of Botswana.

This study offers guidance to policymakers in Botswana on developing strategies to enhance the adoption of e-commerce. If this technology is implemented in Botswana, it will greatly facilitate the adoption of various facilities, such as internet marketing. Mobile payments can be made globally, providing convenient access for individuals. Furthermore, the adoption of e-commerce will have a positive impact on the digital literacy of individuals. Many individuals opt to utilise technology for their shopping needs due to its perceived convenience. Arrangements can be made for the implementation of e-commerce in Botswana, including proper training. Given the widespread acceptance among the public, the government will make efforts to address the obstacles to technology adoption. Ultimately, the government will diligently strive to develop policies and regulations to swiftly embrace e-commerce.

## 7. LIMITATIONS

There are several limitations to consider in this study. The analysis of the proposed model was conducted using Smart PLS in this study. Future research can consider utilising alternative tools, such as AMOS, to evaluate the model. Similarly, this study employed a cross-sectional research design and utilised a quantitative approach. Future research can employ a longitudinal research design in conjunction with a qualitative research approach to comprehensively collect data. In addition, the R square value of this study is 32.1%. Additional variables are required to enhance the R square values. This study focused on analysing the direct effects of variables. However, future studies can expand on this model by incorporating mediating and moderating roles.

## REFERENCES

- Abdullah, L., Ramli, R., Bakodah, H. O., & Othman, M. (2020). Developing a causal relationship among factors of e-commerce: A decision making approach. *Journal of King Saud University - Computer and Information Sciences*, 32(10), 1194-1201. doi: <https://doi.org/10.1016/j.jksuci.2019.01.002>
- Abedi, E., Ghorbanzadeh, D., & Rahehagh, A. (2020). Influence of eWOM information on consumers' behavioral intentions in mobile social networks. *Journal of Advances in Management Research*, 17(1), 84-109. doi: <https://doi.org/10.1108/JAMR-04-2019-0058>
- Abubakar, F. M., & Ahmad, H. B. (2014). Mediating Role of Technology Awareness on Social Influence–Behavioural Intention Relationship. *Infrastructure University Kuala Lumpur Research*, 2(1), 119-131. Retrieved from <https://iukl.edu.my/wp-content/uploads/2018/04/IUKL-Research-Journal-2014-FULL.pdf>
- Ahmad, M., & Siraj, S. (2018). A systematic review and analysis of determinants impacting adoption and assimilation of e-commerce in small and medium enterprises. *International Journal of Electronic Business*, 14(4), 326-351. doi: <https://doi.org/10.1504/IJEB.2018.098128>
- Ahmed, U., Mohd Zin, M. L., & Majid, A. (2016). Impact of Intention and Technology Awareness on Transport Industry's E-service: Evidence from an Emerging Economy. *Journal of Industrial Distribution & Business*, 7, 13-18. doi: <http://dx.doi.org/10.13106/ijidb.2016.vol7.no3.13>.
- Akanibo, S. A., & Abbiyesuku, T. A. (2021). E-Commerce As a Catalyst for Sustainable Growth and Economic Development in the Contemporary Nigeria. *International Journal of Business & Law Research*, 9(3), 85-93. Retrieved from <https://seahipaj.org/journals-ci/sept-2021/IJBLR/full/IJBLR-S-8-2021.pdf>
- Al-Omari, M. A., AlZgool, M. R. H., Ahmed, U., Pahi, M. H., & AlMaamary, Q. (2022). Exploring the Nexus Between E-Business Processes and Organizational Performance: Can Technological Opportunism Play Any Role? *Frontiers in Psychology*, 13, 896527. doi: <https://doi.org/10.3389/fpsyg.2022.896527>

- Ayob, A. H. (2021). E-commerce adoption in ASEAN: who and where? *Future Business Journal*, 7(4), 1-11. doi: <https://doi.org/10.1186/s43093-020-00051-8>
- Bhukya, R., & Paul, J. (2023). Social influence research in consumer behavior: What we learned and what we need to learn? – A hybrid systematic literature review. *Journal of Business Research*, 162, 113870. doi: <https://doi.org/10.1016/j.jbusres.2023.113870>
- Billewar, S. R., Jadhav, K., Sriram, V. P., Arun, D. A., Mohd Abdul, S., Gulati, K., & Bhasin, D. N. K. K. (2022). The rise of 3D E-Commerce: the online shopping gets real with virtual reality and augmented reality during COVID-19. *World Journal of Engineering*, 19(2), 244-253. doi: <https://doi.org/10.1108/WJE-06-2021-0338>
- Bullini Orlandi, L., Zardini, A., & Rossignoli, C. (2020). Organizational technological opportunism and social media: The deployment of social media analytics to sense and respond to technological discontinuities. *Journal of Business Research*, 112, 385-395. doi: <https://doi.org/10.1016/j.jbusres.2019.10.070>
- Cao, Q., & Niu, X. (2019). Integrating context-awareness and UTAUT to explain Alipay user adoption. *International Journal of Industrial Ergonomics*, 69, 9-13. doi: <https://doi.org/10.1016/j.ergon.2018.09.004>
- Chandra, S., & Kumar, K. N. (2018). Exploring Factors Influencing Organizational Adoption of Augmented Reality in E-commerce: Empirical Analysis Using Technology-organization-environment Model. *Journal of Electronic Commerce Research*, 19(3), 237-265. Retrieved from [http://www.jecr.org/sites/default/files/2018vol19no3\\_paper3.pdf](http://www.jecr.org/sites/default/files/2018vol19no3_paper3.pdf)
- Chen, L., Rashidin, M. S., Song, F., Wang, Y., Javed, S., & Wang, J. (2021). Determinants of Consumer's Purchase Intention on Fresh E-Commerce Platform: Perspective of UTAUT Model. *SAGE Open*, 11(2), 21582440211027875. doi: <https://doi.org/10.1177/21582440211027875>
- Daowd, A., Hasan, R., Eldabi, T., Rafi-ul-Shan, P. M., Cao, D., & Kasemsarn, N. (2021). Factors affecting eWOM credibility, information adoption and purchase intention on Generation Y: a case from Thailand. *Journal of Enterprise Information Management*, 34(3), 838-859. doi: <https://doi.org/10.1108/JEIM-04-2019-0118>
- Datta, P. (2011). A preliminary study of ecommerce adoption in developing countries. *Information Systems Journal*, 21(1), 3-32. doi: <https://doi.org/10.1111/j.1365-2575.2009.00344.x>
- Eneizan, B., Alsaad, A., Abdelbaset Alkhaldeh, H. N., & Rawash, O. E. (2020). E-wom, trust, usefulness, ease of use, and online shopping via websites: the moderating role of online shopping experience. *Journal of Theoretical and Applied Information Technology*, 98(13), 2554-2565. Retrieved from <http://www.jatit.org/volumes/Vol98No13/5Vol98No13.pdf>
- Erkan, I., & Evans, C. (2016). The influence of eWOM in social media on consumers' purchase intentions: An extended approach to information adoption. *Computers in Human Behavior*, 61, 47-55. doi: <https://doi.org/10.1016/j.chb.2016.03.003>
- Ferraris, A., Mazzoleni, A., Devalle, A., & Couturier, J. (2019). Big data analytics

- capabilities and knowledge management: impact on firm performance. *Management Decision*, 57(8), 1923-1936. doi: <https://doi.org/10.1108/MD-07-2018-0825>
- Flache, A., Mäs, M., Feliciani, T., Chattoe-Brown, E., Deffuant, G., Huet, S., & Lorenz, J. (2017). Models of social influence: Towards the next frontiers. *Journal of Artificial Societies and Social Simulation*, 20(4), 2. doi: <https://doi.org/10.18564/jasss.3521>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39-50. doi: <https://doi.org/10.1177/002224378101800104>
- Gao, J., Siddik, A. B., Khawar Abbas, S., Hamayun, M., Masukujjaman, M., & Alam, S. S. (2023). Impact of E-Commerce and Digital Marketing Adoption on the Financial and Sustainability Performance of MSMEs during the COVID-19 Pandemic: An Empirical Study. *Sustainability*, 15(2), 1594. doi: <https://doi.org/10.3390/su15021594>
- Ghonyan, L. (2020). *E-Commerce, Opportunities and Challenges: Prospectus for Developing Countries* (Dissertation, University of London). Retrieved from <https://ssrn.com/abstract=3587521>
- Guzzo, T., Ferri, F., & Grifoni, P. (2016). A model of e-commerce adoption (MOCA): consumer's perceptions and behaviours. *Behaviour & Information Technology*, 35(3), 196-209. doi: <https://doi.org/10.1080/0144929X.2015.1132770>
- Hair, J. F. (2009). *Multivariate Data Analysis*. Prentice Hall. Retrieved from <https://search.worldcat.org/title/855545532>
- Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123. doi: <https://doi.org/10.1504/IJMDA.2017.087624>
- Haseeb, M., Hussain, H. I., Kot, S., Androniceanu, A., & Jermisittiparsert, K. (2019). Role of Social and Technological Challenges in Achieving a Sustainable Competitive Advantage and Sustainable Business Performance. *Sustainability*, 11(14), 3811. doi: <https://doi.org/10.3390/su11143811>
- Hood, N., Urquhart, R., Newing, A., & Heppenstall, A. (2020). Sociodemographic and spatial disaggregation of e-commerce channel use in the grocery market in Great Britain. *Journal of Retailing and Consumer Services*, 55, 102076. doi: <https://doi.org/10.1016/j.jretconser.2020.102076>
- Kabanda, S., & Brown, I. (2017). A structuration analysis of Small and Medium Enterprise (SME) adoption of E-Commerce: The case of Tanzania. *Telematics and Informatics*, 34(4), 118-132. doi: <https://doi.org/10.1016/j.tele.2017.01.002>
- Kamasak, R. (2017). The contribution of tangible and intangible resources, and capabilities to a firm's profitability and market performance. *European Journal of Management and Business Economics*, 26(2), 252-275. doi: <https://doi.org/10.1108/EJMBE-07-2017-015>
- Khan, S., Anwar, A., & Qabool, S. (2023). Evaluating the Impact of eWOM Adoption on Consumer Purchasing Intentions. *International Journal of Social Science & Entrepreneurship*, 3(1), 62-84. Retrieved from <https://ijsse.salmaedusociety.com/index.php/ijsse/article/view/71>



- Kim, H. (2019). Globalization and regulatory change: The interplay of laws and technologies in E-commerce in Southeast Asia. *Computer Law & Security Review*, 35(5), 105315. doi: <https://doi.org/10.1016/j.clsr.2019.03.009>
- Kinas, I. A., Parawansa, D. A., & Ismail, M. (2023). The Effect Of Trust, Social Media And Electronic Word Of Mouth (E-Wom) On E-Commerce Customer Participation. *SEIKO: Journal of Management & Business*, 6(1), 242-253. doi: <https://doi.org/10.37531/sejaman.v6i1.4890>
- Lahkani, M. J., Wang, S., Urbański, M., & Egorova, M. (2020). Sustainable B2B E-Commerce and Blockchain-Based Supply Chain Finance. *Sustainability*, 12(10), 3968. doi: <https://doi.org/10.3390/su12103968>
- Lestari, D. (2019). Measuring e-commerce adoption behaviour among gen-Z in Jakarta, Indonesia. *Economic Analysis and Policy*, 64, 103-115. doi: <https://doi.org/10.1016/j.eap.2019.08.004>
- Li, L., Chen, L., Yan, J., Xu, C., & Jiang, N. (2023). How does technological opportunism affect firm performance? The mediating role of resource orchestration. *Journal of Business Research*, 166, 114093. doi: <https://doi.org/10.1016/j.jbusres.2023.114093>
- Lucia-Palacios, L., Bordonaba-Juste, V., Polo-Redondo, Y., & Grünhagen, M. (2016). Complementary IT resources for enabling technological opportunism. *Information & Management*, 53(5), 654-667. doi: <https://doi.org/10.1016/j.im.2016.02.002>
- Mariani, M., & Lamaraua, A. M. I. (2017). The impact of social influence and trust on customer-to-customer online shoppers' purchase intention: An empirical study in indonesia. *GSTF Journal on Computing (JoC)*, 5(3), 1-6. doi: [https://doi.org/10.5176/2251-3043\\_5.3.372](https://doi.org/10.5176/2251-3043_5.3.372)
- Mazikana, A. T. (2023). The impact of e-commerce on brand awareness and brand promotion of the Zimbabwe tourism and hospitality sector. *SSRN Electronic Journal*. doi: <https://dx.doi.org/10.2139/ssrn.4390885>
- Mohammed, F., Ibrahim, O., & Ithnin, N. (2016). Factors influencing cloud computing adoption for e-government implementation in developing countries. *Journal of Systems and Information Technology*, 18(3), 297-327. doi: <https://doi.org/10.1108/JSIT-01-2016-0001>
- Nurlinda, N., Napitupulu, I., Wardayani, W., Azlina, A., Andina, A., Ulfah, A., & Supriyanto, S. (2020). Can E-Commerce Adoption Improve SME's Performance? (Case Studies on Micro, Small and Medium Enterprises with Gojek Services in Indonesia). In *Proceedings of the Third Workshop on Multidisciplinary and Its Applications, WMA-3 2019, 11-14 December 2019, Medan, Indonesia*. EAI. doi: <http://dx.doi.org/10.4108/eai.11-12-2019.2290850>
- Octavia, A., Indrawijaya, S., Sriyudha, Y., & Hasbullah, H. (2020). Impact on E-Commerce Adoption on Entrepreneurial Orientation and Market Orientation in Business Performance of SMEs. *Asian Economic and Financial Review*, 10(5), 516-525. doi: <https://doi.org/10.18488/journal.aefr.2020.105.516.525>
- Oláh, J., Kitukutha, N., Haddad, H., Pakurár, M., Máté, D., & Popp, J. (2019). Achieving Sustainable E-Commerce in Environmental, Social and Economic Dimensions by Taking Possible Trade-Offs. *Sustainability*, 11(1), 89. doi:

<https://doi.org/10.3390/su11010089>

- Pradana, A. F. P., Hasan, S., Putra, A. H. P. K., & Kalla, R. (2022). Moderating of SERVQUAL on E-WOM, product quality, and brand image on and E-commerce purchase intention. *Golden Ratio of Mapping Idea and Literature Format*, 2(1), 36-51. doi: <https://doi.org/10.52970/grmilf.v2i1.135>
- Reardon, T., Heiman, A., Lu, L., Nuthalapati, C. S. R., Vos, R., & Zilberman, D. (2021). “Pivoting” by food industry firms to cope with COVID-19 in developing regions: E-commerce and “copivoting” delivery intermediaries. *Agricultural Economics*, 52(3), 459-475. doi: <https://doi.org/10.1111/agec.12631>
- Rosário, A., & Raimundo, R. (2021). Consumer Marketing Strategy and E-Commerce in the Last Decade: A Literature Review. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(7), 3003-3024. doi: <https://doi.org/10.3390/jtaer16070164>
- Sarkar, S., Aleali, A., Shakarian, P., Armenta, M., Sanchez, D., & Lakkaraju, K. (2019). Impact of social influence on adoption behavior: An online controlled experimental evaluation. In *2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)* (pp. 226-233). IEEE. doi: <https://doi.org/10.1145/3341161.3342882>
- Sharma, A., & Jhamb, D. (2020). Changing consumer behaviours towards online shopping—an impact of Covid 19. *Academy of Marketing Studies Journal*, 24(3), 1-10. Retrieved from <https://www.abacademies.org/articles/changing-consumer-behaviours-towards-online-shopping--an-impact-of-covid-19-9298.html>
- Shemi, A. P., & Procter, C. (2018). E-commerce and entrepreneurship in SMEs: case of myBot. *Journal of Small Business and Enterprise Development*, 25(3), 501-520. doi: <https://doi.org/10.1108/JSBED-03-2017-0088>
- Siddiqui, M. S., Siddiqui, U. A., Khan, M. A., Alkandi, I. G., Saxena, A. K., & Siddiqui, J. H. (2021). Creating Electronic Word of Mouth Credibility through Social Networking Sites and Determining Its Impact on Brand Image and Online Purchase Intentions in India. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(4), 1008-1024. doi: <https://doi.org/10.3390/jtaer16040057>
- Sun, R., Tse, Y. K., & Liu, X. (2023). An empirical investigation of electronic word-of-mouth: product recall and crisis response strategy in social media. *Enterprise Information Systems*, 17(12), 2204331. doi: <https://doi.org/10.1080/17517575.2023.2204331>
- Tanprajna, R. F., & Ellyawati, J. (2020). Effect of E-Referral and E-Wom on Purchase Intention: An Empirical Study in Indonesia. In *11th International Conference on Modern Research in MANAGEMENT, ECONOMICS and ACCOUNTING, December 18-20, 2020, Oxford, United Kingdom* (pp. 124-137). Diamond Scientific Publishing. doi: <https://www.doi.org/10.33422/11th.meacconf.2020.12.83>
- Tobon, S., & García-Madariaga, J. (2021). The Influence of Opinion Leaders’ eWOM on Online Consumer Decisions: A Study on Social Influence. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(4), 748-767. doi: <https://doi.org/10.3390/jtaer16040043>

- Treiblmaier, H., & Sillaber, C. (2021). The impact of blockchain on e-commerce: A framework for salient research topics. *Electronic Commerce Research and Applications*, 48, 101054. doi: <https://doi.org/10.1016/j.elerap.2021.101054>
- Wu, T.-Y., & Lin, C. A. (2017). Predicting the effects of eWOM and online brand messaging: Source trust, bandwagon effect and innovation adoption factors. *Telematics and Informatics*, 34(2), 470-480. doi: <https://doi.org/10.1016/j.tele.2016.08.001>
- Yusuf, A. S., Che Hussin, A. R., & Busalim, A. H. (2018). Influence of e-WOM engagement on consumer purchase intention in social commerce. *Journal of Services Marketing*, 32(4), 493-504. doi: <https://doi.org/10.1108/JSM-01-2017-0031>
- Zainal, F. Y., & Hamdan, A. M. M. (2023). The Impact of E-commerce on the Development of Entrepreneurship: Literature Review. In R. El Khoury & N. Nasrallah (Eds.), *Emerging Trends and Innovation in Business and Finance* (pp. 319-329). Springer Nature Singapore. doi: [https://doi.org/10.1007/978-981-99-6101-6\\_23](https://doi.org/10.1007/978-981-99-6101-6_23)