Scientific Research Publishing

E-Commerce Platforms in Developing Economies: Unveiling Behavioral Intentions through Technology Acceptance Model (TAM)

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Abstract

This study investigates how people in developing economies adopt e-Commerce, using a model called the Technology Acceptance Model (TAM). This model looks at how easy it is to use e-Commerce, how useful people think it is, how much they enjoy it, how much they trust it, how well it fits with their habits, how social influences affect their decisions, and how much risk they feel. By studying these factors and testing different ideas, the study shows that adopting e-Commerce is complicated. It finds that people's trust, enjoyment, and how well e-Commerce fits with their habits play a significant role in their decisions. The study suggests that businesses and researchers should think about these things when they want to encourage e-Commerce in developing economies. The study uses data from questionnaires given to people in Bangladesh who use different online platform for shopping. The study also uses a particular statistical technique, Partial Least Square Structural Equation Modelling (PLS-SEM), to test its ideas. Overall, the study helps us better understand how people in these economies embrace e-Commerce and gives insights that can be useful for both academics and businesses. The study also adds a new idea to the TAM model by considering how people see e-Commerce fitting into a developing economy. The findings of this research hold the promise of informing strategies that can foster greater acceptance and utilization of e-Commerce platforms, propelling the development and digital inclusion of emerging economies.

Keywords

E-Commerce, Developing Economy, Technology Acceptance Model (TAM), Social Influence, Perceived Compatibility

1. Introduction

The proliferation of e-commerce platforms in developing economies has given rise to a burgeoning field of research to understand the factors influencing consumers' intentions to adopt these platforms. Among the pivotal determinants, perceived usefulness is a crucial psychological factor shaping users' attitudes and behaviors (Davis, 1989). Perceived usefulness, a construct rooted in the Technology Acceptance Model (TAM), reflects individuals' subjective assessments of how adopting a particular technology, such as an e-commerce platform, enhances their efficiency and effectiveness in achieving specific goals (Venkatesh & Davis, 2000). As the TAM postulates, perceived usefulness is critical in shaping users' behavioral intentions toward adopting technology (Moon & Kim, 2001). This theory posits that when individuals perceive technology as helpful in fulfilling their needs, they are more likely to embrace and integrate it into their daily activities. This foundational concept has been extensively studied and validated across various technological domains, providing insights into the fundamental mechanisms driving technology adoption (Gefen et al., 2003). In e-commerce adoption in developing economies, the relationship between perceived usefulness and behavioral intentions gains particular relevance. Developing economies often present unique challenges and opportunities due to distinct socio-economic, cultural, and technological factors (Rogers, 2003). In recent years, traditional e-commerce platforms like Amazon and eBay have been supplemented by social media platforms such as Facebook, Twitter, Instagram, WhatsApp, and others. Consumers' hesitation to trust traditional shopping platforms due to potential misinformation from merchants (Kim et al., 2005) has contributed to this shift. Additionally, consumers now seek out user-generated content like online reviews and blogs before making purchase decisions, with 91% considering such content and 46% acknowledging its influence on their choices (Cheung & Thadani, 2012; Bhattacharya & Srivastava, 2020). Perceived ease of use, an integral facet of the TAM, encapsulates users' subjective evaluations of the simplicity and user-friendliness of a technology (Davis, 1989). The model postulates that individuals are more likely to develop positive attitudes toward technology when they perceive it as uncomplicated and user-friendly, leading to a stronger intention to adopt it (Davis, 1989; Venkatesh & Davis, 2000). An extensive body of research spanning diverse technological domains consistently supports this foundational premise, underscoring the universal role of perceived ease of use in shaping user behavior. However, developing economies' intricate socio-economic and cultural contexts introduce unique variables that can influence the perceived ease of use and subsequent technology adoption (Mathieson, 1991). Within these settings, understanding how perceived ease of use resonates with users' intentions to embrace e-Commerce platforms holds critical implications. Developing economies, characterized by challenges and opportunities, necessitate insights that transcend theoretical constructs to provide actionable strategies for successful e-Commerce adoption. Perceived usefulness, a pivotal construct within

the TAM, reflects users' subjective assessment of the extent to which technology enhances their effectiveness in achieving tasks (Davis, 1989).

On the other hand, perceived ease of use encompasses users' evaluations of the simplicity and accessibility of using a technology (Venkatesh & Davis, 2000). While both factors contribute to shaping users' attitudes and intentions, the relative influence of perceived usefulness and perceived ease of use remains a compelling avenue of exploration, particularly in the context of developing economies. Prior research has consistently highlighted the significance of perceived usefulness in predicting users' intentions to adopt technology (Davis, 1989; Legris et al., 2003). It is posited that users are more likely to adopt technology when they perceive it as beneficial in enhancing their productivity (Davis, 1989; Legris et al., 2003). In contrast, although crucial, perceived ease of use may only sometimes exert as pronounced an impact on adoption intentions (Agarwal & Prasad, 1998), this assertion, however, warrants further investigation, especially in the unique socio-economic and cultural milieu of developing economies. Perceived ease of use, a fundamental construct within the TAM, reflects users' subjective assessments of the simplicity and user-friendliness of a technology (Davis, 1989). Perceived enjoyment captures users' experiential feelings of pleasure and satisfaction while engaging with technology (Davis et al., 1989). While recognizing the potential interdependence between these constructs, this research posits that perceived enjoyment may mediate between perceived ease of use and users' behavioral intentions, particularly within the context of developing economies. Empirical research has demonstrated that perceived ease of use significantly influences users' attitudes and intentions toward technology adoption (Venkatesh & Davis, 2000). Likewise, perceived enjoyment has been identified as a pivotal factor in shaping users' positive attitudes toward technology and influencing their intention to adopt (Davis et al., 1989; Venkatesh & Davis, 2000). Given the potential overlap between these constructs, exploring whether perceived enjoyment mediates the relationship between perceived ease of use and users' behavioral intentions in the context of e-commerce adoption becomes a compelling endeavor. Perceived enjoyment, a crucial component within the Technology Acceptance Model (TAM), encapsulates users' experiential feelings of pleasure and satisfaction derived from using a technology (Davis et al., 1989). This construct postulates that users are more likely to adopt technology when they perceive it as enjoyable and gratifying (Davis et al., 1989; Venkatesh & Davis, 2000). However, the linkage between perceived enjoyment and technology adoption, particularly within the specific context of developing economies, presents a fertile ground for exploration. Perceived enjoyment predicts users' attitudes and intentions toward technology adoption (Davis et al., 1989; Moon & Kim, 2001). Moreover, within the evolving socio-economic and cultural dynamics of developing economies, where consumer behavior and preferences are undergoing transformational shifts, understanding the role of perceived enjoyment becomes pivotal.

Perceived usefulness, a cornerstone construct within the Technology Acceptance Model (TAM), reflects users' subjective evaluations of the degree to which technology enhances their effectiveness in achieving specific tasks (Davis, 1989). Concurrently, perceived trust in online transactions captures users' confidence in the security, reliability, and authenticity of online interactions and transactions (McKnight & Chervany, 2001), and the importance of perceived usefulness in influencing users' attitudes and intentions towards technology adoption (Davis, 1989; Venkatesh & Davis, 2000). Likewise, perceived trust has been acknowledged as pivotal in shaping users' willingness to engage in online transactions (McKnight & Chervany, 2001). However, the complex relationship between perceived usefulness, perceived trust, and users' behavioral intentions remains a critical area of exploration, particularly within developing economies' specific socio-economic and cultural contexts.

Perceived ease of use, a foundational construct within the Technology Acceptance Model (TAM), reflects users' subjective assessments of the simplicity and user-friendliness of a technology (Davis, 1989). Simultaneously, perceived compatibility captures how much a technology aligns with users' routines and practices (Taylor & Todd, 1995). Acknowledging the potential moderating effect of perceived compatibility, this research posits that the relationship between perceived ease of use and users' behavioral intentions may vary based on the perceived compatibility of e-commerce platforms with users' existing habits. The significance of perceived ease of use influences users' attitudes and intentions towards technology adoption (Davis, 1989; Venkatesh & Davis, 2000). Additionally, studies have recognized the importance of perceived compatibility in shaping users' acceptance of new technologies (Taylor & Todd, 1995; Mathieson, 1991). However, the intricate interaction between these constructs and their combined influence on users' behavioral intentions remains relatively unexplored, especially within developing economies' unique socio-economic and cultural milieu. Social influence, a vital component within the Technology Acceptance Model (TAM), captures the impact of external sources, such as interpersonal networks, on users' perceptions and intentions toward technology (Venkatesh & Davis, 2000). The premise is that individuals are more likely to adopt technology when they perceive that their social circles endorse and encourage its use (Rogers, 2003; Venkatesh & Davis, 2000). Existing research has established that social influence significantly affects users' attitudes and intentions towards technology adoption (Venkatesh et al., 2012; Moon & Kim, 2001). Moreover, the importance of interpersonal relationships in shaping consumer behaviors, particularly within collectivist societies prevalent in developing economies, underscores the relevance of exploring this dynamic (Hofstede, 1980). However, understanding how social influence operates specifically in the context of e-commerce adoption remains an area ripe for investigation. Perceived risk, a pivotal component within the Technology Acceptance Model (TAM), encompasses users' subjective evaluations of potential uncertainties and drawbacks as-

sociated with adopting a technology (Jarvenpaa et al., 2000). In e-commerce adoption, perceived risk can manifest in concerns regarding privacy, security, financial transactions, and product quality (Gefen et al., 2003; Featherman & Pavlou, 2003; Bhattacherjee, 2002).

Moreover, within the socioeconomic and cultural contexts of developing economies, where information asymmetry and limited regulatory frameworks can exacerbate perceived risks, the dynamics of e-commerce adoption take on added complexity (Pavlou & Dimoka, 2006). The trajectory of technological adoption, particularly within the context of developing economies, is characterized by multifaceted interactions between individual behaviors, socioeconomic factors, and technological advancements (Rogers, 2003). Individuals engage with e-commerce platforms and navigate a complex ecosystem of features, services, and interactions, ultimately influencing their perceptions and intentions toward the technology (Venkatesh & Bala, 2008). The interconnected nature of adoption intentions and actual adoption behavior (Fishbein & Ajzen, 1975; Ajzen, 1991) in the context of developing economies, where unique socio-cultural and economic factors abound, the dynamics of this relationship merit closer scrutiny (Lee et al., 2003). Understanding how adopting e-commerce influences individuals' broader intentions toward e-commerce holds implications for policymakers, businesses, and researchers aiming to harness the transformative potential of digital commerce.

This research paper explores e-Commerce adoption within developing economies, employing the Technology Acceptance Model (TAM) as our guiding theoretical framework. The study examines the intricate relationships among consumers' attitudes and seven key variables, including perceived ease of use, usefulness, enjoyment, trust, compatibility, social influence, and risk. The findings highlight how these factors impact consumers' attitudes and intentions toward e-Commerce adoption in developing economies, with empirical support for all proposed hypotheses. The subsequent sections of our paper unravel the critical constructs of perceived usefulness and perceived ease of use, along with their relevance in developing economies. We discuss their potential impacts on e-commerce adoption and present related hypotheses. Moving forward, we explore perceived enjoyment, perceived trust, and perceived compatibility—factors that often underpin users' intentions toward e-commerce platforms in developing economies—and posit hypotheses regarding their influence. We then explore the intriguing dynamics of social influence and perceived risk, examining how these factors shape users' behavioral intentions and, in turn, their adoption of e-commerce platforms. Lastly, we synthesize our findings in the context of "Adopting e-Commerce in Developing Economies," offering a holistic perspective on e-commerce adoption's complexities and implications for various stakeholders. Finally, we reflect on the research's contributions and future directions, shedding light on strategies to enhance e-commerce adoption within developing economies, fostering digital inclusion and economic growth. This structured

approach aims to facilitate a coherent and logical exploration of the intricate facets surrounding e-commerce adoption in these dynamic contexts.

2. Theorical Framework and Formation of Hypotheses

2.1. E-Commerce

E-Commerce, which encompasses the online buying and selling goods and services, has witnessed exponential growth and transformation in recent years. E-Commerce platforms have not only altered the traditional consumer-business relationship but have also become integral to the economic landscapes of developing economies (Turban et al., 2019). E-Commerce functions have been leveraged by social platforms like Facebook, YouTube, and Myspace (Smith, Zhao, & Alexander, 2013). Furthermore, platforms like Amazon, Alibaba, and Daraz have emerged as notable channels for businesses to interact with customers and provide various goods and services. As e-commerce continues to evolve, understanding the attitudes and intentions of users within developing economies becomes crucial for businesses and policymakers aiming to tap into this dynamic market (Turban et al., 2019). The Technology Acceptance Model (TAM), which forms the theoretical underpinning of the study, provides a lens through which to analyze the complexities of e-commerce adoption (Davis, 1989). By exploring variables such as perceived ease of use, usefulness, enjoyment, trust, compatibility, social influence, and risk, the study delves into the multifaceted aspects that shape users' attitudes and intentions toward e-commerce (Molla & Licker, 2005). Through its comprehensive examination of these variables, the study contributes to the understanding of e-commerce adoption and offers insights into the distinct challenges and opportunities posed by developing economies. By uncovering the interplay between factors like perceived risk, social influence, and compatibility, the research sheds light on strategies to foster successful e-commerce adoption within these evolving contexts (Rogers, 2003). Specifically, it boosts consumer involvement and trust in online transactions by using socially rich information. The rise of fast internet and advanced tech like Web 2.0 has made today's consumers more informed and empowered, reshaping markets to focus on consumers (Valentine & Gordon, 2000). Recognizing these factors helps s-commerce managers and marketers create effective marketing strategies (Lu et al., 2016).

e-Commerce, the process of conducting commercial transactions electronically over the internet, has been significantly influenced by the emergence of Web 2.0 technology. Web 2.0 represents a shift in internet usage, characterized by interactive and user-generated content, enabling enhanced collaboration, information sharing, and user participation in online platforms. This evolution has revolutionized how businesses and consumers interact, shaping a more dynamic and engaging online shopping experience (O'Reilly, 2005). Web 2.0 technology has facilitated the development of user-friendly interfaces, social networking sites, and online communities, allowing consumers to not only shop but also

connect, review products, and influence purchase decisions collectively (Harris & Rae, 2009). This synergy between e-commerce and Web 2.0 has resulted in a more immersive and socially interactive online shopping environment catering to the evolving preferences of modern consumers. In academic literature, various theories and models discuss consumers' readiness to adopt new technologies and how this impacts their intention to use them. Some of these theories include:

Theories	Source
The Theory of Reasoned Action (TRA)	Ajzen & Fishbein, 1975
The Theory of Diffusion of Innovations (DIT)	Rogers, 1995
The Theory of Task-Technology Fit (TTF)	Goodhue & Thompson, 1995
Decomposed Theory of Planned Behavior	Taylor & Todd, 1995
The Technology Acceptance Model (TAM)	Davis et al., 1989
Technology Acceptance Model 2 (TAM2)	Venkatesh & Davis, 2000

When we compare and scrutinize these theories regarding behavioral intention, it becomes clear that the Technology Acceptance Model (TAM), introduced by Fred Davis in 1989, receives substantial consensus as an appropriate framework for understanding and predicting system usage (Khan et al., 2021). In developing nations, the smart use of Web 2.0 technologies (Saprikis & Markos, 2018) has the potential to boost e-Commerce cost-effectively. Web 2.0 technologies are internet-based tools and platforms that facilitate user-generated content, collaboration, and interactivity on the web. They have transformed the internet from a static information source into a dynamic and participatory ecosystem. Many studies have examined how Web 2.0 technologies can be integrated into e-Commerce. For instance, factors such as how users perceive the usefulness and ease of using these technologies have been found to strongly affect their willingness to engage with e-Commerce platforms (Ali-Hassan et al., 2015). All this previous research provides a strong foundation for digging deeper into what influences user behavior in e-Commerce when Web 2.0 technologies are involved.

2.2. Developing Economy

A developing economy, often called an emerging economy, is characterized by its transitional stage between a primarily agrarian or traditional economic structure and a more advanced industrialized economy. These economies are typically marked by lower income levels, limited access to essential services, and a higher poverty prevalence than developed economies. Developing economies are often found in regions such as Africa, Asia, and parts of Latin America, and they face unique challenges and opportunities in adopting and integrating e-commerce into their economic landscape. As these economies evolve, adopting e-commerce can bridge the digital divide by providing access to a wide range of

products and services, enabling businesses to reach new markets, and enhancing the overall efficiency of economic transactions (Qureshi, 2016). However, it is essential to understand the behavioral intentions and factors that influence e-commerce adoption in these settings, as they often differ from those in developed economies due to varying technological infrastructure, literacy, trust, and social influences (Dwivedi et al., 2019).

2.3. Unveiling E-Commerce Adoption: Insights from the Technology Acceptance Model (TAM)

The realm of e-commerce, characterized by online transactions for buying and selling goods and services, has undergone transformative growth and evolution driven by technological advancements. To understand consumers' adoption and acceptance of e-commerce platforms, the Technology Acceptance Model (TAM) has emerged as a prominent theoretical framework. TAM, proposed by Davis in 1989, aims to explain how users perceive and embrace technology based on two primary factors: perceived ease of use and perceived usefulness (Davis, 1989). Some more key points-

Author/Year	Key Points
Hajli (2014)	Suggested that the Technology Acceptance Model (TAM) is a reliable method for predicting technology adoption.
Lai (2017)	Emphasized the effectiveness of TAM in explaining users' acceptance of information systems and technologies.
Byun et al. (2018)	However, some scholars' express doubts about whether TAM comprehensively explains the technology adoption process.
Various Researchers	Many studies have successfully applied the TAM framework to explore the adoption of emerging technologies. Examples include online purchases (van der Heijden et al., 2003), online shopping behavior (Smith, Deitz, Royne, Hansen, Grünhagen, & Witte, 2013), information technology systems (Legris et al., 2003), novel media entertainment technology (Dogruel et al., 2015), and adoption of electronic training (Zainab et al., 2017).

Therefore, some suggest enhancing existing models like TAM and the Theory of Planned Behavior (TPB) by adding more factors to understand human behavior better (Ajzen, 1991; Conner & Armitage, 1998). Numerous studies have explored the applicability of TAM in the context of e-commerce adoption. Davis et al. (1989) initially applied TAM to investigate how users perceive the electronic shopping experience and found that perceived ease of use and perceived usefulness significantly influence users' intentions to use e-commerce platforms (Davis et al., 1989). Subsequent research by Venkatesh and Davis (2000) introduced Technology Acceptance Model 2 (TAM2), extending TAM's scope by incorporating additional factors such as subjective norm and image (Venkatesh & Davis, 2000).

Perceived usefulness, a pivotal construct within TAM, has been a consistent focus in e-commerce research. Al-Maghrabi et al. (2011) demonstrated that perceived usefulness positively impacts users' intentions to adopt e-commerce platforms, emphasizing its importance in shaping consumer behavior (Al-Maghrabi et al., 2011). Furthermore, perceived ease of use has been identified as a critical factor influencing users' adoption of e-commerce. A study by Li et al. (2019) underscored that users' perceptions of ease of use significantly affect their attitudes and intentions towards using e-commerce platforms (Li et al., 2019). While TAM provides a robust foundation for understanding e-commerce adoption, its applicability extends to various sectors, including mobile commerce. Teo and Liu (2007) examined how TAM applies to mobile commerce adoption and highlighted the relevance of perceived ease of use and perceived usefulness in shaping user attitudes toward mobile commerce platforms (Teo & Liu, 2007). The Technology Acceptance Model (TAM) is a practical framework to comprehend consumers' adoption of e-commerce platforms. The interplay between perceived ease of use and usefulness has consistently emerged as a significant determinant of user behavior. As technology and e-commerce evolve, TAM offers a valuable lens through which researchers and practitioners can decipher the complex dynamics influencing consumers' acceptance of technology-driven platforms.

2.4. Perceived Usefulness

The construct of perceived usefulness, as introduced by Davis (1989), plays a pivotal role in the TAM. It refers to how users believe a technology would enhance their performance in a particular task. In the context of e-commerce platforms, perceived usefulness refers to consumers' perceptions of how adopting these platforms would facilitate their shopping needs. In the context of e-commerce adoption, Agarwal and Prasad (1998) found that perceived usefulness significantly influenced users' intentions to adopt online shopping platforms. Similarly, Li et al. (2019) observed that users who perceived e-commerce platforms as applicable were more inclined to engage in online shopping activities. Limited access to physical stores, infrastructural limitations, and geographical barriers often drive consumers in these economies towards online platforms. The perceived usefulness of e-commerce platforms becomes crucial as users assess whether these platforms can effectively address their shopping needs. For instance, a study by Aichner and Jacob (2015) highlighted that perceived usefulness was a key factor influencing consumers' attitudes toward e-commerce adoption in emerging markets. These markets, characterized by the coexistence of traditional and digital retail channels, underscore the role of perceived usefulness in attracting consumers to e-Commerce platforms. Consumer behavior theory underscores the significance of perceived usefulness in influencing consumer attitudes and subsequent actions. According to Ajzen (1991), the Theory of Planned Behavior asserts that attitudes, subjective norms, and perceived be-

havioral control shape behavioral intentions. Perceived usefulness aligns with attitudes, as users' perceptions of utility directly impact their intentions to adopt e-commerce platforms. Extending this perspective to developing economies, where access to technology and digital experiences might be relatively new for some users, the perceived usefulness of e-commerce platforms can be a decisive factor. By offering diverse products, convenient shopping experiences, and potentially lower prices, e-commerce platforms can demonstrate their utility in addressing consumers' shopping needs, thereby positively influencing their intentions to adopt.

H1: *Perceived Usefulness positively influences users' behavioral intentions toward adopting e-commerce platforms in developing economies.*

2.5. Perceived Ease of Use

Perceived ease of use, as conceptualized by Davis (1989), refers to users' beliefs about the effort required to understand and operate a technology. Studies examining the adoption of e-Commerce platforms have demonstrated the importance of perceived ease of use. Venkatesh and Davis (2000) found that perceived ease of use significantly influenced users' attitudes towards online shopping platforms. Similarly, Woon et al. (2015) highlighted the role of perceived ease of use in shaping users' intentions to use mobile commerce applications. These findings underscore the relevance of the construct in the context of technology adoption. In e-commerce platforms, where users interact with digital interfaces to make purchase decisions, the perceived ease of use assumes heightened significance. Developing economies, often characterized by varying levels of digital literacy, access to technology, and user experience with online platforms, highlight the need for intuitively designed and easy-to-navigate platforms. Research by Chong et al. (2018) emphasized that perceived ease of use significantly impacted consumers' intentions to adopt e-commerce platforms in emerging economies. Al-maghrabi et al. (2011) indicated that ease of use played a pivotal role in encouraging e-commerce adoption in the context of Saudi Arabia, underscoring the global relevance of the construct. Suki and Suki (2017) found that positive user experiences with e-commerce platforms contributed to higher perceived ease of use and increased intentions to adopt. Perceived ease of use suggests that platforms prioritizing user-centered design and providing straightforward navigation are more likely to foster positive behavioral intentions among users.

Davis (1989) postulates that perceived usefulness and perceived ease of use are vital determinants of users' attitudes and intentions toward technology adoption. Perceived usefulness refers to users' beliefs about how technology enhances their performance, while perceived ease of use pertains to users' perceptions of the effort required to use the technology. Chen and Tan (2004) observed that perceived usefulness was a stronger predictor of adoption intentions than perceived ease of use for mobile commerce services in China. This indicates that users in

developing economies may prioritize a technology's practical benefits and utility over concerns about its ease of use. Zhang et al. (2011) found that perceived usefulness strongly influenced users' intentions to adopt e-commerce platforms in China. Developing economies may have users who prioritize the ability of e-commerce platforms to offer a wide range of products, cost savings, and convenience. In this context, perceived usefulness encapsulates the perceived value that e-commerce platforms bring to users' lives.

H2: *Perceived Ease of Use positively influences users' behavioral intentions towards adopting e-commerce platforms in developing economies.*

H3: *Perceived Usefulness has a more substantial positive influence on behavioral intentions than Perceived Ease of Use among users in developing economies.*

2.6. Perceived Enjoyment

Perceived ease of use, as a critical component of the TAM framework, reflects users' perceptions of technology's simplicity and straightforwardness. It has consistently influenced users' attitudes and intentions towards technology adoption. Studies by Venkatesh and Davis (2000) and Moon and Kim (2001) have demonstrated the significant role of perceived ease of use in shaping users' behavioral intentions. In e-Commerce platforms, perceived ease of use reflects users' comfort and ease in navigating digital interfaces to make purchase decisions. Perceived enjoyment, a construct closely related to users' hedonic experiences, has influenced technology adoption. van der Heijden et al. (2003) explored the role of perceived enjoyment as a mediator in online shopping. Perceived ease of use indicates that users who find e-Commerce platforms easy to use are likely to experience greater enjoyment, positively impacting their intentions to adopt these platforms. In developing economies, where users might be new to online shopping experiences, the hedonic value derived from e-Commerce interactions can be particularly influential. e-Commerce platforms offering engaging, visually appealing, and user-friendly interfaces can enhance users' enjoyment. Koufaris (2002) found that perceived enjoyment significantly predicted users' intentions to adopt e-commerce platforms. Users who derived pleasure from the online shopping experience were more likely to express positive intentions. In developing economies, where perceptions and attitudes towards online platforms are being formed, perceived enjoyment can bridge perceived ease of use and behavioral intentions.

H4: *Perceived Enjoyment mediates the relationship between Perceived Ease of users' behavioral intentions towards adopting e-commerce platforms in developing economies.*

2.7. Perceived Trust

Trust plays a pivotal role in online interactions, especially in e-Commerce, where users are required to share personal and financial information. Trust is a

central factor influencing users' willingness to adopt and engage in online activities. Studies by Gefen (2000) and McKnight and Chervany (2001) have emphasized the significance of trust in shaping users' intentions to engage in online transactions. Users' trust perceptions are influenced by various factors, including the platform's credibility, security measures in place, and past experiences. Bhattacherjee (2002) proposed a theoretical model highlighting the mediating role of trust between perceived usefulness and users' intentions to engage in online activities. Trust acts as a bridge, enabling users to overcome concerns related to perceived risks and uncertainties associated with online interactions. In developing economies, where digital experiences may be relatively new, fostering trust is essential for encouraging technology adoption. e-Commerce platforms can establish trust through transparent policies, secure payment gateways, and reliable delivery mechanisms. Studies in emerging markets by Suh and Han (2002) and McKnight et al. (2002) indicated that trust significantly influenced users' intentions to adopt online platforms. In the context of e-Commerce platforms in developing economies, perceived trust in online transactions can be a pivotal factor mediating the relationship between perceived usefulness and behavioral intentions.

H5: *Perceived Trust in Online Transactions mediates the relationship between Perceived Usefulness and users' behavioral intentions toward adopting e-commerce platforms in developing economies.*

2.8. Perceived Compatibility

Perceived compatibility with existing habits reflects users' perceptions of how well a technology aligns with their established routines and practices. In the context of e-Commerce adoption, users' existing shopping habits and preferences influence their perceptions of whether e-Commerce platforms are suited to their needs and habits. Rogers (2003) introduced the concept of compatibility as an element of the Diffusion of Innovations theory. Users' compatibility assessments influence their adoption decisions, particularly in environments where new technologies must align with established behaviors. In the context of developing economies, where users' familiarity with digital platforms might be evolving, perceived compatibility becomes a significant factor. Venkatesh et al. (2003) found that compatibility moderated the relationship between perceived ease of use and intentions to use technology. Their perceptions of ease of use more influenced users who perceived a high level of compatibility. Studies in emerging markets, such as Liébana-Cabanillas et al. (2014), emphasize the influence of perceived compatibility in technology adoption decisions.

H6: *Perceived Compatibility positively relates to behavioral intentions toward adopting e-commerce platforms in developing economies.*

2.9. Social Influence

The influence of social networks and interpersonal relationships on technology

adoption has gained prominence in understanding users' behavioral intentions. Rogers' Diffusion of Innovations theory (Rogers, 2003) emphasizes the importance of social networks in the adoption process. Innovations spread more rapidly through social interactions, with individuals relying on trusted sources for guidance. Social influence, thus, extends beyond individual preferences and taps into collective behaviors. Brown and Venkatesh (2005) found that users who received favorable recommendations from their peers were more likely to embrace new technologies. Similarly, Yang et al. (2012) observed the positive impact of social influence on users' intentions to adopt mobile apps. These studies underscore the influential role that interpersonal relationships play in influencing users' intentions. Research by Al-Debei and Avison (2010) demonstrated the role of social influence in shaping e-commerce adoption behaviors in Jordan. Users were more likely to adopt e-commerce platforms if they received positive endorsements from their social circles. Sivakumar and Raj (2007) highlighted the significance of social influence in technology adoption within collectivist cultures. In developing economies characterized by collectivist values, social influence affects individual intentions and reflects broader cultural dynamics.

H7: *Social Influence (family, friends, peers) positively influences users' behavioral intentions toward adopting e-commerce platforms in developing economies.*

2.10. Perceived Risk

Perceived risk, a concept rooted in consumer behavior literature, reflects users' apprehensions about potential adverse outcomes associated with a technology or product. Risks associated with technology, such as privacy concerns, security threats, and uncertainty about outcomes, can deter users from embracing new platforms. The diffusion of innovations theory by Rogers (2003) emphasizes that perceived risk can hinder the adoption process, especially when users perceive high uncertainty levels or potential negative consequences. Studies by Lee and Turban (2001) and Doolin et al. (2005) have indicated that perceived risk negatively influences users' attitudes and intentions toward e-commerce adoption. Kesharwani and Singh (2012) explored the role of perceived risk in e-commerce adoption in India and found that risk perceptions significantly influenced users' intentions to adopt. Users' apprehensions about the security and reliability of e-commerce platforms directly impacted their willingness to embrace online shopping. Dholakia et al. (2004) emphasized the importance of risk management strategies in fostering e-commerce adoption. Developing economies can benefit from tailored risk mitigation efforts that address specific concerns related to security and trust.

H8: *Perceived Risk negatively influences users' behavioral intentions towards adopting e-commerce platforms in developing economies.*

H9: *Perceived enjoyment is positively related to adopting e-Commerce in developing economies.*

2.11. Adopting E-Commerce in Developing Economy

Research has shown that as e-Commerce becomes more prevalent and accessible in developing economies, individuals are more likely to form positive intentions toward using e-commerce platforms for various transactions. Adopting e-Commerce in developing economies aligns with the Technology Acceptance Model (TAM), highlighting that perceived usefulness and ease of use of technology positively influence individuals' intention to adopt and use it (Davis, 1989). Studies such as Suki and Suki (2017) have demonstrated that in countries like China and Malaysia, where e-commerce adoption has been increasing, the intention to adopt e-commerce is positively correlated with its adoption. Wambui & Mbarika (2010) found that adopting e-commerce in developing countries can foster positive attitudes and intentions toward using online platforms for trade and transactions. Dutta & Mia (2011) highlight the importance of improving digital infrastructure and accessibility in developing economies to enhance individuals' intention to engage in e-commerce.

H10: *The inclination towards e-commerce adoption in developing economies positively correlates with intending to engage with e-commerce platforms.*

Based on the theoretical foundation, we introduced the framework of the Technology Acceptance Model (TAM) in Figure 1.

3. Methodology

3.1. Sample and Procedure

We used a convenient sampling method to gather data. Participants willingly took part, and we ensured their privacy was protected. We followed a research plan involving sample selection, data collection, pilot testing, and analysis. We used a questionnaire to test the extended Technology Acceptance Model (TAM).
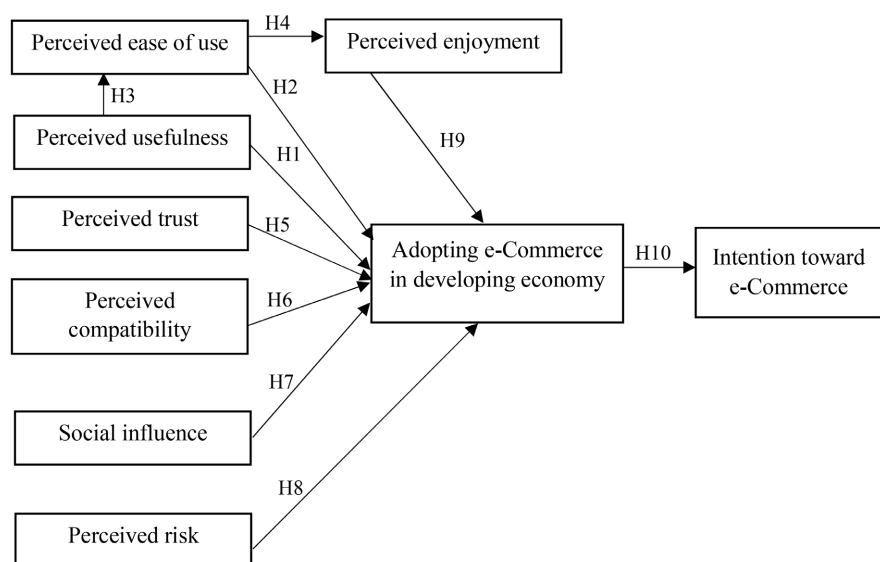

Figure 1. Proposed TAM model for adopting e-Commerce in developing economy.

We first identified 20 notable companies using online platforms for sales. The survey was conducted both in person and online. People who had shopped from these companies received printed questionnaires, while an online version was sent through email and Facebook Messenger. The survey included 55 questions about different aspects. These aspects covered demographic factors like age, gender, marital status, education qualifications, occupation, and income levels, providing valuable insights into the diverse participant profiles. The survey also examined the respondents' experience levels, their preferred social networking platforms for e-commerce engagement, and the frequency with which they used e-commerce services. Furthermore, participants were asked about their product preferences, distinguishing between service and manufacturing goods. By investigating these aspects, the survey aimed to paint a picture of the factors that influence e-commerce adoption within the context of developing economies, considering the diverse characteristics and behaviors of the respondents.

To ensure the data collection was accurate, we translated the survey from English to Bengali using a method suggested by Brislin (1980). This ensured that the translated questions kept their original meaning. The survey used a 5-point scale to collect responses, ranging from "strongly agree" (5) to "strongly disagree" (1). The questions and ideas in the survey were taken from previous research to make them more reliable and valid. We carefully included these questions to answer our research goals and better understand how e-commerce is adopted in developing economies. The analysis involved the use of IBM SPSS 20 for conducting descriptive analysis of demographic characteristics and Smart PLS 3.2.8 for further data analysis. Regarding the measurement model, which encompassed tasks like assessing reliability validity, conducting structural analysis including path analysis, and assessing model fitness to validate hypotheses, the authors opted for partial structural least square equation modeling (PLS-SEM) methodology.

3.2. Data Collection

In this study, the authors distributed 300 questionnaires to individuals in Bangladesh engaged with online buying and selling. Two hundred questionnaires were given physically, while 100 were administered online using Google Forms through platforms like Facebook and Gmail. Out of the 300 recipients, 30 did not participate. After careful review, ten incomplete or erroneous questionnaires were excluded. This led to 260 usable questionnaires, resulting in an 86.87% effective response rate. From September to December 2022, participants answered 55 research questions designed to explore seven constructs. This comprehensive approach provided insights into e-commerce adoption behaviors in Bangladesh's digital landscape. Experts from various sectors, including researchers, academics, e-commerce managers, and e-commerce users, participated in an initial board meeting to refine the instruments. A pilot study using 30 questionnaires validated face validity. Encouraged by the pilot's outcome, the authors

collected more responses. Ultimately, 260 complete questionnaires were accepted, and ten incorrect or incomplete surveys were rejected.

4. Findings

4.1. Shared Method Variance

The dataset was subjected to a thorough evaluation to identify any missing values or outliers. The absence of these issues indicated that the data was appropriate for subsequent analysis. Harman's single-factor method assessed Common Method Bias (CMB), resulting in a test value of 29.39%, below the 50% cutoff (Podsakoff et al., 2003), indicating no significant CMB concern.

Within the framework of PLS-SEM, the evaluation of Common Method Bias (CMB) encompasses the execution of a test for multicollinearity. A clear indication of Common Method Bias (CMB) occurs when the Variance Inflation Factor (VIF) exceeds the threshold of 3.3 for reflective indicators, as noted by Kock (2015) and Hair Jr. et al. (2021). Here, VIF values ranged from 1.693 to 2.942, well below the cutoff, indicating the absence of CMB concerns.

4.2. Analysis of Respondents' Demographics

Table 1 illustrates the attributes and their respective categories within 260 participants. Each category is associated with a frequency count and a percentage. The categories include various aspects of the participants' profiles and behaviors. Regarding age, the participants are divided into four groups: those under 20 years (7.693%), those aged 21 - 30 (57.692%), those aged 31 - 40 (23.077%), and those aged 41 and above (11.538%). Regarding gender, the majority is male (58.462%), while the rest are female (41.538%). The participants' marital status reveals that 67.308% are single, and 32.692% are married. In terms of education qualification, the distribution is as follows: >SSC (6.923%), SSC (7.692%), HSC (20.385%), Graduation (38.462%), Postgraduate (23.846%), and PhD or similar (2.692%). Occupation categories include Business (18.462%), Employee (25.385%), Housewife (18.077%), Student (33.077%), and Others (5.000%). Monthly income categories are Less than 15,000 (10.000%), 16,000 - 25,000 (16.923%), 26,000 - 35,000 (37.692%), and 36,000 and above (35.385%). Experience is divided into ranges: 0 - 3 years (34.231%), 4 - 5 years (35.000%), 6 - 7 years (20.385%), and 8 years and above (10.385%). The participants' engagement with social networking sites for e-commerce is noted with the following percentages: Facebook (42.308%), Instagram (21.154%), Twitter (9.615%), WhatsApp (19.231%), and Others (7.692%). Frequency of using social networking sites is categorized as Daily (26.923%), Weekly (36.538%), Monthly (23.846%), and Yearly (12.692%). Finally, regarding purchasing behavior, 18.077% of participants preferred Service goods, while the majority (81.923%) opted for Manufacturing goods. This data provides insights into the diverse characteristics and preferences of the surveyed individuals, helping to understand their demographic composition, online presence, and consumer habits.

Table 1. Participant demographics.

Characteristics and Their Categories		Frequency	%
Age	>20	20	7.693
	21 - 30	150	57.692
	31 - 40	60	23.077
	41 and above	30	11.538
Gender	Male	152	58.462
	Female	108	41.538
Marital status	Single	175	67.308
	Married	85	32.692
Education qualification	>SSC	18	6.923
	SSC	20	7.692
	HSC	53	20.385
	Graduation	100	38.462
	Postgraduate	62	23.846
	PhD and like	7	2.692
Occupation	Business	48	18.462
	Employee	66	25.385
	Housewife	47	18.077
	Student	86	33.077
	Others	13	5.000
Income (Monthly)	Less than 15,000	26	10.000
	16,000 - 25,000	44	16.923
	26,000 - 35,000	98	37.692
	36,000 and above	92	35.385
Experience	0 - 3 years	89	34.231
	4 - 5 years	91	35.000
	6 - 7 years	53	20.385
	8 years and above	27	10.385
Social networking sites for e-Commerce	Facebook	110	42.308
	Instagram	55	21.154
	Twitter	25	9.615
	WhatsApp	50	19.231
	Others	20	7.692

Continued

	Daily	70	26.923
Frequency of use	Weekly	95	36.538
	Monthly	62	23.846
	Yearly	33	12.692
Purchase of product	Service goods	47	18.077
	Manufacturing goods	213	81.923

4.3. Measurement Model Overview

We used a two-step method called structural equation modeling to understand things better. First, we looked at the measurement part and then the structure part. We chose the Partial Least Square Structural Equation Model (PLS-SEM) because it suits our research about predicting things (Hair Jr. et al., 2021). First, we checked how reliable our measurements were, whether they matched up, and how they differed from each other (Hair Jr. et al., 2021). We used some numbers to do this, like Cronbach's α, Dillion-Goldstein's rho (rho_A), and Composite reliability. These numbers needed to be higher than 0.70 to be good enough (Henseler et al., 2009; Nunally & Bernstein, 1994), and they were! That means our measurements were consistent. Next, we looked at something called "convergent validity." This means that our measurements should agree and show similar things. We checked this by looking at how well our measurements matched and how much they varied (Hair Jr. et al., 2021). Usually, we want numbers above 0.70 for this, but sometimes 0.60 is okay, too (Hair Jr. et al., 2021). We also looked at something called "Average Variance Extracted" (AVE), and we wanted it to be at least 0.50 to be good (Bagozzi, 1982; Fornell & Larcker, 1981; Hair Jr. et al., 2021). Our AVE values were above 0.50, so we knew our measurements worked well together.

We checked something called "discriminant validity." Which means our measurements are different, not just similar (Henseler et al., 2009). We used two ways to check this. One way was to look at the numbers we got from our measurements and how they related (Henseler et al., 2009). The other way used something called the "Heterotrait-Monotrait (HTMT) ratio of correlations" (Henseler et al., 2015). Both of these methods showed that our measurements were different enough from each other, which is what we wanted to see. Table 2 assesses reliability and validity, Table 3 evaluates discriminant validity using the Fornell-Larcker Criterion, and Table 4 assesses discriminant validity using the Heterotrait-Monotrait Ratio of Correlations (HTMT) Criterion.

This approach is considered robust and accepted for this purpose. In this study, all calculated HTMT values were below the threshold of 0.90 (Gold et al., 2001), affirming the fulfillment of discriminant validity criteria. We ensured the data was valid using both the Fornell-Larcker and the HTMT criterion. This confirmed the reliability of the data for the subsequent analysis of the structural model.

Table 2. Assessment of reliability and validity.

Variables	Items	Loading of Indicators	Internal Consistency (Cronbach's α)	Dillion-Goldstein's rho	Composite Reliability Score	Average Variance Extracted (AVE)
Adopting e-Commerce in developing economy	AECDE1	0.730	0.874	0.891	0.910	0.613
	AECDE2	0.734				
	AECDE3	0.793				
	AECDE4	0.815				
	AECDE5	0.701				
Intention toward e-Commerce	ITEC 1	0.832	0.875	0.890	0.912	0.614
	ITEC 2	0.789				
	ITEC 3	0.763				
	ITEC 4	0.872				
	ITEC 5	0.774				
Perceived usefulness	PUF1	0.763	0.877	0.893	0.908	0.612
	PUF2	0.763				
	PUF3	0.757				
	PUF4	0.875				
	PUF5	0.725				
Perceived ease of use	PEU1	0.814	0.879	0.895	0.915	0.616
	PEU2	0.768				
	PEU3	0.863				
	PEU4	0.736				
	PEU5	0.749				
Perceived enjoyment	PEJY1	0.874	0.778	0.756	0.783	0.579
	PEJY2	0.763				
	PEJY3	0.734				
	PEJY4	0.843				
	PEJY5	0.745				
Perceived trust	PTRT1	0.856	0.741	0.743	0.789	0.581
	PTRT2	0.739				
	PTRT3	0.737				
	PTRT4	0.894				
	PTRT5	0.723				

Continued

	PCOM1	0.789	0.698	0.701	0.723	0.537
	PCOM2	0.774				
Perceived compatibility	PCOM3	0.712				
	PCOM4	0.742				
	PCOM5	0.752				
	SINF1	0.753	0.759	0.762	0.778	0.615
	SINF2	0.755				
Social influence	SINF3	0.735				
	SINF4	0.734				
	SINF5	0.737				
	PERK1	0.753	0.618	0.624	0.633	0.510
	PERK2	0.725				
Perceived risk	PERK3	0.732				
	PERK4	0.742				
	PERK5	0.712				

Table 3. Evaluating Discriminant Validity using the Fornell-Larcker criterion.

	Variables	1	2	3	4	5	6	7	8	9
1	Adopting e-Commerce in developing economy	**0.671***								
2	Intention toward e-Commerce	0.633	**0.678***							
3	Perceived usefulness	0.602	0.536	**0.703***						
4	Perceived ease of use	0.568	0.464	0.654	**0.773***					
5	Perceived enjoyment	0.345	0.543	0.325	0.543	**0.782***				
6	Perceived trust	0.654	0.553	0.641	0.564	0.436	**0.654***			
7	perceived compatibility	0.367	0.546	0.453	0.483	0.546	0.435	**0.776***		
8	Social influence	0.457	0.437	0.546	0.349	0.452	0.546	0.563	**0.783***	
9	Perceived risk	0.534	0.368	0.356	0.534	0.436	0.435	0.546	0.549	**0.689***

*Square root of average variance extracted.

Table 4. Assessing Discriminant Validity with the Heterotrait-Monotrait Ratio of Correlations (HTMT) criterion.

	Variables	1	2	3	4	5	6	7	8	9
1	Adopting e-Commerce in developing economy									
2	Intention toward e-Commerce	0.761								
3	Perceived usefulness	0.702	0.621							
4	Perceived ease of use	0.711	0.548	0.722						

Continued

5	Perceived enjoyment	0.543	0.519	0.673	0.684				
6	Perceived trust	0.721	0.573	0.563	0.436	0.671			
7	perceived compatibility	0.629	0.472	0.521	0.463	0.523	0.618		
8	Social influence	0.532	0.526	0.453	0.563	0.497	0.549	0.627	
9	Perceived risk	0.389	0.328	0.439	0.409	0.321	0.231	0.342	0.379

4.4. Assessing How Well the Model Fits: Goodness-of-Fit Index (GoF)

To see if our structural model works well, we used the Goodness of Fit (GoF) test. We look at two things to understand how good the model is: the overall Goodness of Fit (GoF) and something called R2 (explained by Henseler et al., 2016). The GoF index helps us know if our model fits nicely in what we are studying, and it's calculated using a formula. We want this number to be higher to show a better fit. Some experts, like Wetzels et al. (2009), have set values for us to understand this number better. They say if GoF is small (0.1), it's not very good, but if it's medium (0.25), it's better. Nevertheless, what we want is GoF to be significant (0.36 or more). In our study, our GoF number is 0.452, higher than 0.36. This means our model matches well (GoFlarge), fitting our data nicely.

4.5. Structural Framework

Initiating the structural model assessment, we were involved in formulating various hypotheses in the initial phase. These hypotheses were devised to uncover the underlying causal connections among latent constructs within the proposed research model. In order to compute t-values, the authors implemented a process of random sampling with replacement, using a sample size of 2500. The sampling process was carried out with a significant level of 0.05%. We wanted to see if the connections we studied were meaningful, so we used a particular method. To do this, we checked the path coefficient (β) and t statistics. These results, including the path coefficient (β) and t statistics, are all shown in Table 5 and Figure 2.

The result shows that perceived usefulness (β = 0.232, t = 2.121, $p < 0.05$), perceived ease of use (β = 0.357, t = 2.012, $p < 0.5$), perceived trust (β = 0.294, t = 2.768, $p < 0.05$) significant influence on adopting e-Commerce in developing economies. In developing economies like Bangladesh, on the rise, the key to embracing e-commerce lies in the foundation of trust. When people believe in its reliability, e-Commerce becomes a natural choice. Thus, H1, H2, and H5 are accepted in this study. Furthermore, perceived compatibility (β = 0.412, t = 4.435, $p < 0.05$) has been accepted in this finding. Perceived compatibility is actively fostering the adoption of e-commerce within developing economies. Social influence (β = 0.212, t = 2.324, $p < 0.05$), in the dynamic tapestry of developing

Table 5. Examination of hypotheses.

Proposed Statements	Connections	β	t Statistics*	p	Decisions
H1	Perceived usefulness → Adopting e-Commerce	0.232	2.121	0.231	Accepted
H2	Perceived ease of use → Adopting e-Commerce	0.357	2.012	0.324	Accepted
H3	Perceived usefulness → Perceived ease of use	0.423	1.896	0.000	Accepted
H4	Perceived ease of use → Perceived enjoyment	0.372	1.654	0.000	Accepted
H5	Perceived trust → Adopting e-Commerce	0.294	2.768	0.029	Accepted
H6	Perceived compatibility → Adopting e-Commerce	0.412	4.435	0.000	Accepted
H7	Social influence → Adopting e-Commerce	0.212	2.324	0.000	Accepted
H8	Perceived risk → Adopting e-Commerce	0.123	4.231	0.137	Accepted
H9	Perceived enjoyment → Adopting e-Commerce	0.321	3.245	0.000	Accepted
H10	Adopting e-Commerce in developing economy → Intention toward e-Commerce	0.564	12.458	0.000	Accepted
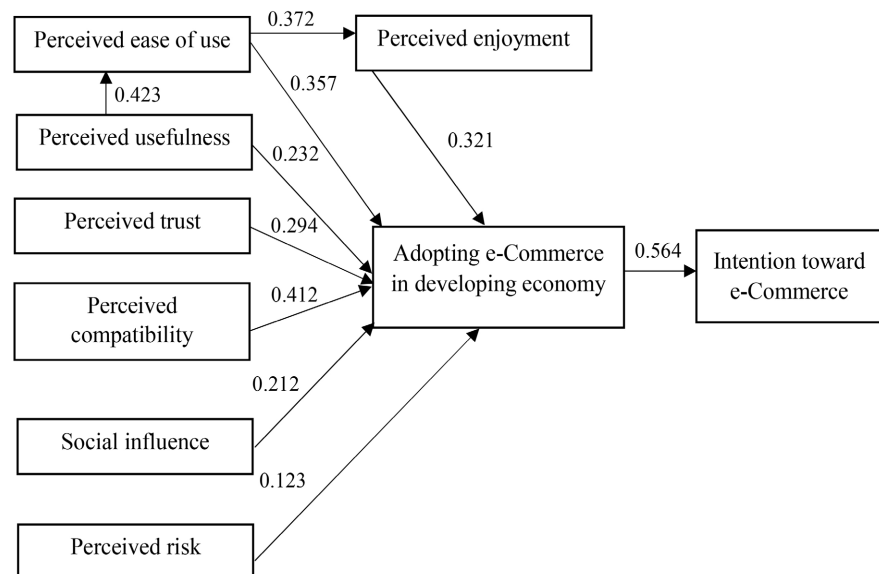
Figure 2. Validate TAM model for adopting e-Commerce in developing economy.

economies, the ripple of social influence gracefully guides the path towards embracing e-commerce, has a significant influence on adopting e-Commerce and H7 has been accepted in this finding. Indeed, the impact of Perceived Risk (β = 0.123, t = 4.231, $p < 0.05$) on users' behavioral intentions toward e-commerce adoption in developing economies is a noteworthy revelation. With H8 being accepted, this finding shed light on the pivotal role that risk perception plays in shaping consumer decisions. Recognizing a positive linkage between Perceived Enjoyment (β = 0.321, t = 3.245, $p < 0.05$) and adopting e-Commerce within developing economies offers a compelling insight. The acceptance of H9 underscores the significance of users' enjoyment as a driving force behind their wil-

lingness to embrace e-Commerce platforms. Perceived usefulness significantly influences perceived ease of use ($\beta = 0.423$, t = 1.896, $p < 0.05$) to adopt e-Commerce and H3 is accepted. The results clearly show that when users find helpful e-Commerce, it makes the process easier. This highlights the critical link between how valuable something is and how effortless it seems when adopting e-commerce. The connection we found between how easy it is to use e-commerce ($\beta = 0.372$, t = 1.654, $p < 0.05$) and how much people enjoy it highlights something important. When things are easy to do, people tend to enjoy them more. Confirming hypothesis H4 makes this link even more substantial, showing that when e-commerce feels smooth, it boosts enjoyment and encourages more people to adopt it. The TAM model accounts for a substantial portion of the variance in adopting e-Commerce within developing economies, explaining approximately 57.15%. Furthermore, when considering the attitude towards adopting e-Commerce in these developing economies, it becomes evident that this construct explains about 46.13% of the variance in individuals' intentions to engage in e-Commerce activities. To understand how well the model describes variations, we used the guidelines from Hair Jr. et al. (2021), which categorize the explanatory power as either weak (0.19), moderate (0.33), or substantial (0.67). Applying these benchmarks to our calculated values of 0.5715 and 0.4613 for the two constructs, the proposed model significantly explains adoption and attitude.

According to the criteria set by Hair Jr. et al. (2021), a positive Q2 value signifies strong predictive relevance, while a negative value suggests otherwise. The results reveal that both adopting e-Commerce in developing economies and attitude toward e-Commerce adoption boast Q2 values of 0.28575 and 0.23065, respectively. These outcomes unequivocally affirm the robust predictive relevance of the proposed theoretical model, indicating its efficacy in understanding and forecasting e-Commerce adoption trends within developing economies.

5. Discussion

This research focused on understanding how e-commerce is embraced in developing countries, using the Technology Acceptance Model (TAM) as the framework. The model carefully examines the connections between consumers' attitudes towards e-commerce and seven key factors: perceived ease of use (how easy it is to use), perceived usefulness (how useful it is), perceived enjoyment (how enjoyable it is), perceived trust (how trustworthy it seems), perceived compatibility (how well it fits with their needs), social influence (how others influence their choices), and perceived risk (how much risk they perceive). The outcomes revealed the complex pathways through which these elements, directly or indirectly, influence consumers' purchasing behavior and, by extension, their intentions to adopt e-commerce in developing economies like Bangladesh. Remarkably, this study supported all proposed hypotheses, signifying a comprehensive alignment of the model with the empirical observations. For instance,

the study discovered a negative influence of perceived risk on consumers' attitudes toward e-Commerce adoption in a developing nation like Bangladesh. This finding underscores the need for further empirical exploration to unpack the intricate dynamics at play in this domain.

Furthermore, the study unearthed compelling insights. Social influence emerged as a novel contributing factor, positively impacting consumers' attitudes toward adopting e-Commerce in developing economies. This underscores the significance of social interactions and endorsements in shaping consumers' perceptions and decisions within this context. Another noteworthy discovery relates to the positive role of perceived compatibility in fostering e-Commerce adoption in developing countries. This observation underscores the importance of aligning e-Commerce offerings with these nations' prevailing cultural, social, and economic contexts. The study also identified robust predictors of consumers' attitudes toward e-Commerce adoption. Perceived ease of use, usefulness, enjoyment, and trust emerged as influential factors in shaping consumers' favorable attitudes toward embracing e-Commerce in developing economies. These findings provide valuable insights for practitioners and researchers, offering a nuanced understanding of the factors driving e-Commerce adoption in these dynamic economies. This study has shed light on the complexities of e-Commerce adoption within developing countries, employing the Technology Acceptance Model (TAM) as a guiding framework. The support for proposed hypotheses, along with novel findings related to social influence and perceived compatibility, underscores the importance of tailoring e-Commerce strategies to align with consumers' preferences and contextual nuances in these evolving economies.

5.1. Theoretical Implications

The research outcomes, which investigate the adoption of e-commerce in developing nations through the Technology Acceptance Model (TAM), carry noteworthy theoretical implications for comprehending consumer behavior in emerging economies. Through the revelation of connections between consumers' attitudes towards e-commerce and multiple dependent factors, this study contributes to developing technology acceptance theories specific to these distinctive contexts. The identified factors, including perceived ease of use, perceived usefulness, perceived enjoyment, perceived trust, perceived compatibility, social influence, and perceived risk, elucidate the multi-faceted nature of e-Commerce adoption. These results resonate with established theories such as the Technology Acceptance Model (TAM) and its extensions, validating their relevance in capturing the nuances of consumer behavior across diverse cultural and economic contexts (Davis, 1989; Venkatesh & Davis, 2000). The research's supported hypotheses emphasize the suggested model's adaptability and relevance in developing nations. Specifically, the adverse influence of perceived risk on consumers' attitudes towards e-commerce adoption in a developing economy

like Bangladesh provides valuable insights into the connection between risk perception and consumer behavior. This finding aligns with earlier studies highlighting the significance of risk considerations in shaping technology adoption intentions (Pavlou & Fygenson, 2006; Chong, 2013). The novel finding of the positive influence of social influence on consumers' attitudes towards e-Commerce adoption adds depth to the understanding of how social interactions play a pivotal role in technology acceptance. This result resonates with social influence theories, emphasizing the importance of social networks and recommendations in shaping consumer choices (Ajzen, 1991; Bearden & Etzel, 1982). The discovery that perceived compatibility contributes to e-Commerce adoption in developing economies highlights the significance of cultural alignment in technology acceptance. This finding resonates with studies emphasizing the need for technology to resonate with users' values and lifestyles (Venkatesh et al., 2003; Rogers, 2003). The robust prediction of consumers' attitudes towards e-Commerce adoption by perceived ease of use, usefulness, enjoyment, and trust underscores these factors' enduring importance across diverse contexts. These findings align with previous research emphasizing the significance of usability, utility, user experience, and trustworthiness in shaping technology acceptance (Davis et al., 1989; Venkatesh & Bala, 2008).

The theoretical implications of this study underscore the resilience and adaptability of technology acceptance theories, such as the TAM, in capturing the complex dynamics of e-Commerce adoption within developing countries. The interplay between perceived risk, social influence, perceived compatibility, and other influential factors deepens our understanding of consumer behavior in emerging economies, providing valuable insights for both theory and practice.

5.2. Practical Significance for Management

The outcomes of this investigation into e-commerce adoption in developing nations through the Technology Acceptance Model (TAM) hold substantial managerial implications for enterprises and policymakers operating within these economies. This study provides practical insights that can inform strategic choices by illuminating the complex factors that mold consumer behavior and impact their perspectives on e-commerce. Notably, the study's identification of the adverse effect of perceived risk on consumers' e-commerce attitudes underscores the necessity for well-devised risk management strategies. Businesses should prioritize transparency regarding data security, privacy policies, and transactional safeguards. Providing clear information about the measures to mitigate risks can enhance consumer confidence and encourage adoption.

Second, the identified significance of perceived compatibility suggests that marketing efforts should be tailored to resonate with developing economies' cultural, social, and economic contexts. Brands that adapt their messaging and offerings to align with local values and lifestyles are more likely to gain consumer trust and facilitate adoption. Third, given the positive influence of social influ-

ence on consumers' attitudes towards e-Commerce, businesses should consider forming partnerships with influential individuals within local communities. Collaborating with trusted social influencers can amplify brand credibility and widen the reach of e-Commerce platforms. Fourth, the robust prediction of consumers' attitudes by perceived ease of use highlights the importance of user-friendly interfaces and seamless navigation. Businesses should prioritize user experience design, ensuring their e-Commerce platforms are intuitive, easy to use, and minimize friction points. Fifth, emphasizing the perceived usefulness and enjoyment of e-Commerce experiences can be pivotal in driving adoption. Businesses should articulate the practical benefits of their platforms, such as time savings and convenience while emphasizing the enjoyable aspects of the online shopping journey. Sixth, identifying perceived trust as a significant predictor underscores the importance of building and maintaining consumer trust. Brands should invest in building a robust online reputation, offering excellent customer support, and ensuring transparent and reliable business practices. Seventh, given the unique economic landscape of developing countries, businesses should offer diverse and locally relevant payment methods to cater to consumers' preferences. Flexible payment options can reduce barriers to adoption and accommodate various financial situations.

Finally, the results of this study indicate a need for further empirical research. This suggests an opportunity for businesses to collaborate with academia to generate more profound insights into the specific dynamics of e-Commerce adoption within their target markets. Such collaborations can lead to the development of tailored strategies that resonate with local consumer behaviors. The managerial implications drawn from this study provide a roadmap for businesses and policymakers seeking to navigate the complex landscape of e-Commerce adoption in developing countries. By strategically addressing risk perception, cultural alignment, usability, and trust-building factors, organizations can position themselves for success in these evolving economies.

5.3. Limitations and Future Research Agendas

The study did not explicitly explore the role of sustainability and infrastructure in shaping e-Commerce adoption. A deeper investigation into how infrastructure gaps, digital accessibility, and sustainable development interplay with consumer behavior would contribute a more holistic perspective to the analysis. Policy and regulatory implications are integral to the e-Commerce landscape. Analyzing how government policies and regulations impact adoption behavior could elucidate the role of legislative measures in shaping consumer decisions. The rapid evolution of technology demands attention. Future research could examine the influence of emerging technologies, such as mobile apps or digital payment systems, on e-Commerce adoption trends. The ethical dimensions of e-Commerce adoption merit exploration. Issues related to data privacy, cybersecurity, and the digital divide could shape consumer attitudes and behaviors,

warranting a deeper analysis. Addressing the study's limitations and pursuing these future research agendas would enrich the understanding e-Commerce adoption in developing countries. This expanded knowledge base would equip businesses, policymakers, and researchers to navigate the dynamic landscape more effectively.

6. Conclusion

This research thoroughly investigates the adoption of e-commerce in developing nations using the Technology Acceptance Model (TAM). By examining the links between consumers' e-Commerce attitudes and different influencing factors, this study has revealed valuable insights with significance for both academic knowledge and practical applications. The findings highlight the intricate web of factors that influence consumer behavior in the context of e-Commerce adoption. From perceived ease of use and usefulness to compatibility, social influence, trust, enjoyment, and risk perception, these variables collectively shape consumers' purchase attitudes and intentions toward e-Commerce. This multifaceted understanding contributes to the theoretical advancement of technology acceptance models and provides actionable insights for businesses and policymakers navigating the dynamic e-Commerce landscape in developing economies. The support for all proposed hypotheses underscores the robustness of the TAM framework in capturing the complexities of e-Commerce adoption. Identifying factors such as perceived risk as a barrier to adoption, the role of social influence as a positive driver, and the importance of perceived compatibility for consumer acceptance offer concrete insights that can guide strategic decision-making. Furthermore, the study's focus on a specific developing country, such as Bangladesh, provides a valuable foundation for further research. The implications of cultural nuances, socio-economic disparities, and infrastructural challenges within different regions of a developing nation call for more in-depth exploration across diverse contexts. As businesses seek to expand their e-Commerce ventures in developing economies, the insights from this study can guide their strategies. By addressing risk perceptions, aligning marketing efforts with cultural values, enhancing usability, fostering trust, and harnessing the power of social influence, organizations can better navigate the complexities of consumer behavior and drive e-Commerce adoption. Looking ahead, the study's limitations and future research agendas offer a roadmap for scholars and practitioners. Embracing cross-country comparisons, delving deeper into cultural influences, employing mixed-method approaches, and addressing ethical considerations will contribute to a more nuanced understanding of e-Commerce adoption dynamics. This study serves as a steppingstone toward comprehending the intricate interplay of factors that drive or hinder e-Commerce adoption in developing countries. By illuminating these dynamics, the research empowers stakeholders to make informed decisions, foster innovation, and contribute to the sustainable growth of e-Commerce in these vibrant and evolving economies.

Acknowledgements

Conflicts of Interest

The authors have affirmed the absence of any conflict of interest in relation to this study.

References

Agarwal, R., & Prasad, J. (1998). The Antecedents and Consequents of User Perceptions in Information Technology Adoption. *Decision Support Systems, 22,* 15-29. https://doi.org/10.1016/S0167-9236(97)00006-7

Aichner, T., & Jacob, F. (2015). Measuring the Degree of Corporate Social Media Use. *International Journal of Market Research, 57,* 257-275. https://doi.org/10.2501/IJMR-2015-018

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50,* 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I., & Fishbein, M. (1975). A Bayesian Analysis of Attribution Processes. *Psychological Bulletin, 82,* 261. https://doi.org/10.1037/h0076477

Al-Debei, M. M., & Avison, D. (2010). Developing a Unified Framework of the Business Model Concept. *European Journal of Information Systems, 19,* 359-376. https://doi.org/10.1057/ejis.2010.21

Ali-Hassan, H., Nevo, S., & Akarahanna, E. (2015). Adoption and Use of Social Media in Small and Medium-Sized Enterprises. *Decision Support Systems, 67,* 260-271.

Al-Maghrabi, T., Dennis, C., & Halliday, S. V. (2011). The Impact of Website Quality on Customer Satisfaction and Purchase Intentions: Evidence from Saudi Arabia. *International Journal of Information Management, 31,* 647-660.

Bagozzi, R. P. (1982). A Field Investigation of Causal Relations among Cognitions, Affect, Intentions, and Behavior. *Journal of Marketing Research, 19,* 562-584. https://doi.org/10.1177/002224378201900415

Bearden, W. O., & Etzel, M. J. (1982). Reference Group Influence on Product and Brand Purchase Decisions. *Journal of Consumer Research, 9,* 183-194. https://doi.org/10.1086/208911

Bhattacharya, A., & Srivastava, M. (2020). A Framework of Online Customer Experience: An Indian Perspective. *Global Business Review, 21,* 800-817. https://doi.org/10.1177/0972150918778932

Bhattacherjee, A. (2002). Individual Trust in Online Firms: Scale Development and Initial Test. *Journal of Management Information Systems, 19,* 211-241. https://doi.org/10.1080/07421222.2002.11045715

Brislin, R. W. (1980). Translation and Content Analysis of Oral and Written Material. *Handbook of Cross-Cultural Psychology, 2,* 349-444.

Brown, S. A., & Venkatesh, V. (2005). Model of Adoption of Technology in Households: A Baseline Model Test and Extension Incorporating Household Life Cycle. *MIS Quarterly, 29,* 399-426. https://doi.org/10.2307/25148690

Byun, H., Chiu, W., & Bae, J. (2018). Exploring the Adoption of Sports Brand Apps: An

Application of the Modified Technology Acceptance Model. *International Journal of Asian Business and Information Management, 9,* 52-65. https://doi.org/10.4018/IJABIM.2018010105

Chen, L. D., & Tan, W. (2004). Measurement of Technology-Based Service Encounter Quality. *Managing Service Quality: An International Journal, 14,* 377-389.

Cheung, C. M. K., & Thadani, D. R. (2012). The Impact of Electronic Word-of-Mouth Communication: A Literature Analysis and Integrative Model. *Decision Support Systems, 54,* 461-470. https://doi.org/10.1016/j.dss.2012.06.008

Chong, A. Y., Xia, W., & Rong, K. (2018). Understanding the Influencing Factors of Android Mobile App Download Intention among College Students: A Modified TAM Perspective. *Journal of Systems and Software, 135,* 1-10.

Conner, M., & Armitage, C. J. (1998). Extending the Theory of Planned Behavior: A Review and Avenues for Further Research. *Journal of Applied Social Psychology, 28,* 1429-1464. https://doi.org/10.1111/j.1559-1816.1998.tb01685.x

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly, 13,* 319-340. https://doi.org/10.2307/249008

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science, 35,* 982-1003. https://doi.org/10.1287/mnsc.35.8.982

Dholakia, R. R., Bagozzi, R. P., & Pearo, L. K. (2004). A Social Influence Model of Consumer Participation in Network- and Small-Group-Based Virtual Communities. *International Journal of Research in Marketing, 21,* 241-263. https://doi.org/10.1016/j.ijresmar.2003.12.004

Dogruel, L., Joeckel, S., & Bowman, N. D. (2015). The Use and Acceptance of New Media Entertainment Technology by Elderly Users: Development of an Expanded Technology Acceptance Model. *Behaviour & Information Technology, 34,* 1052-1063. https://doi.org/10.1080/0144929X.2015.1077890

Doolin, B., Dillon, S., Thompson, F., & Corner, J. L. (2005). Perceived Risk, the Internet Shopping Experience and Online Purchasing Behavior: A New Zealand Perspective. *Journal of Global Information Management, 13,* 66-88. https://doi.org/10.4018/jgim.2005040104

Dutta, A., & Mia, I. (2011). Factors Affecting e-Commerce Adoption in SMEs: An Exploratory Study in Singapore. *International Journal of Information Management, 31,* 360-371.

Dwivedi, Y. K., Hughes, D. L., Coombs, C., Constantinou, I. D., Duan, Y., Edwards, J. S., & Raman, K. R. (2019). Impact of COVID-19 Pandemic on Information Management Research and Practice: Transforming Education, Work and Life. *International Journal of Information Management, 55,* Article ID: 102211. https://doi.org/10.1016/j.ijinfomgt.2020.102211

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-Services Adoption: A Perceived Risk Facets Perspective. *International Journal of Human-Computer Studies, 59,* 451-474. https://doi.org/10.1016/S1071-5819(03)00111-3

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research.* Addison-Wesley.

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measure Menterror. *Journal of Marketing Research, 18,* 39-50. https://doi.org/10.1177/002224378101800104

Gefen, D. (2000). E-Commerce: The Role of Familiarity and Trust. *Omega, 28,* 725-737. https://doi.org/10.1016/S0305-0483(00)00021-9

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly, 27,* 51-90. https://doi.org/10.2307/30036519

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems, 18,* 185-214. https://doi.org/10.1080/07421222.2001.11045669

Goodhue, D. L., & Thompson, R. L. (1995). Task-Technology Fit and Individual Performance. *MIS Quarterly, 19,* 213-236. https://doi.org/10.2307/249689

Hair Jr., J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R.* Sage Publications. https://doi.org/10.1007/978-3-030-80519-7

Hajli, M. N. (2014). A Study of the Impact of Social Media on Consumers. *International Journal of Market Research, 56,* 387-404. https://doi.org/10.2501/IJMR-2014-025

Harris, L., & Rae, A. (2009). Web 2.0 and Virtual Shoppers: A Discourse Analysis of e-Commerce Retailing Literature. *Journal of Business & Economics Research, 7,* 15-28.

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS Path Modeling in New Technology Research: Updated Guidelines. *Industrial Management & Data Systems, 116,* 2-20. https://doi.org/10.1108/IMDS-09-2015-0382

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance Based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43,* 115-135. https://doi.org/10.1007/s11747-014-0403-8

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. In R. R. Sinkovics, & P. N. Ghauri (Eds.), *New Challenges to International Marketing (Advancesin International Marketing, Vol. 20)* (pp. 277-319). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values.* Sage Publications.

Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. (2000). Consumer Trust in an Internet Store. *Information Technology and Management, 1,* 45-71. https://doi.org/10.1023/A:1019104520776

Kesharwani, A., & Singh, B. (2012). Investigating Barriers in Adoption of Mobile Banking in India: A Structural Equation Modeling Approach. *International Journal of Bank Marketing, 30,* 355-373. https://doi.org/10.1108/02652321211236923

Khan, A. G., Lima, R. P., & Mahmud, M. S. (2021). Understanding the Service Quality and Customer Satisfaction of Mobile Banking in Bangladesh: Using a Structural Equation Model. *Global Business Review, 22,* 85-100. https://doi.org/10.1177/0972150918795551

Kim, D. J., Song, Y. I., Braynov, S. B., & Rao, H. R. (2005). A Multidimensional Trust Formation Model in B-to-C e-Commerce: A Conceptual Framework and Content Analyses of Academia/Practitioner Perspectives. *Decision Support Systems, 40,* 143-165. https://doi.org/10.1016/j.dss.2004.01.006

Kock, N. (2015). Common Method Bias in PLS-SEM: A Full Collinearity Assessment Approach. *International Journal of E-Collaboration, 11,* 1-10. https://doi.org/10.4018/ijec.2015100101

Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior. *Information Systems Research, 13,* 205-223. https://doi.org/10.1287/isre.13.2.205.83

Lai, P. C. (2017). The Literature Review of Technology Adoption Models and Theories for

the Novelty Technology. *JISTEM-Journal of Information Systems and Technology Management, 14,* 21-38. https://doi.org/10.4301/S1807-17752017000100002

Lee, J. N., & Turban, E. (2001). A Trust Model for Consumer Internet Shopping. *International Journal of Electronic Commerce, 6,* 75-91. https://doi.org/10.1080/10864415.2001.11044227

Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communications of the Association for Information Systems, 12,* 50-66. https://doi.org/10.17705/1CAIS.01250

Legris, P., Ingham, J., & Collerette, P. (2003). Why Do People Use Information Technology? A Critical Review of the Technology Acceptance Model. *Information & Management, 40,* 191-204. https://doi.org/10.1016/S0378-7206(01)00143-4

Li, H., Liu, Y., Xu, X., Heikkilä, J., & Van Der Heijden, H. (2019). Why Do People Use Mobile Payment? A Perspective of Perceived Value and Costs. *International Journal of Information Management, 46,* 252-263.

Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2014). Antecedents of the Adoption of the e-Commerce Services in SMEs. *Journal of Small Business and Enterprise Development, 21,* 547-565.

Lu, B., Fan, W., & Zhou, M. (2016). Social Presence, Trust, and Social Commerce Purchase Intention: An Empirical Research. *Computers in Human Behavior, 56,* 225-237. https://doi.org/10.1016/j.chb.2015.11.057

Mathieson, K. (1991). Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behavior. *Information Systems Research, 2,* 173-191. https://doi.org/10.1287/isre.2.3.173

McKnight, D. H., & Chervany, N. L. (2001). What Trust Means in e-Commerce Customer Relationships: An Interdisciplinary Conceptual Typology. *International Journal of Electronic Commerce, 6,* 35-59. https://doi.org/10.1080/10864415.2001.11044235

McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and Validating Trust Measures for e-Commerce: An Integrative Typology. *Information Systems Research, 13,* 334-359. https://doi.org/10.1287/isre.13.3.334.81

Molla, A., & Licker, P. S. (2005). eCommerce Adoption in Developing Countries: A Model and Instrument. *Information & Management, 42,* 877-899. https://doi.org/10.1016/j.im.2004.09.002

Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web Context. *Information & Management, 38,* 217-230. https://doi.org/10.1016/S0378-7206(00)00061-6

Nunally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.

O'Reilly, T. (2005). What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software. *Communications & Strategies, 1,* 17-37.

Pavlou, P. A., & Dimoka, A. (2006). The Nature and Role of Feedback Text Comments in Online Marketplaces: Implications for Trust Building, Price Premiums, and Seller Differentiation. *Information Systems Research, 17,* 392-414. https://doi.org/10.1287/isre.1060.0106

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology, 88,* 879-903.

Qureshi, I. (2016). E-Commerce Adoption in Developing Countries: An Exploratory Study of the Factors Influencing Adoption in Pakistan. *Information Technology for Development, 22,* 654-672.

Rogers, E. M. (1995). *Diffusion of Innovations* (4th ed.). Free Press.

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.

Saprikis, V., & Markos, A. (2018). Modeling Users' Acceptance of Social Commerce. *International Journal of E-Business Research, 14,* 28-50. https://doi.org/10.4018/IJEBR.2018100102

Sivakumar, K., & Raj, S. P. (2007). Turning Advertising Strategy into Effective Sales Force Action. *Journal of Marketing, 71,* 70-80.

Smith, R., Deitz, G., Royne, M. B., Hansen, J. D., Grünhagen, M., & Witte, C. (2013). Cross-Cultural Examination of Online Shopping Behavior: A Comparison of Norway, Germany, and the United States. *Journal of Business Research, 66,* 328-335. https://doi.org/10.1016/j.jbusres.2011.08.013

Smith, S. M., Zhao, J., & Alexander, M. (2013). Social Commerce from a Theory of Planned Behavior Paradigm: An Analysis of Purchase Intention. *International Journal of E-Adoption (IJEA), 5,* 76-88. https://doi.org/10.4018/ijea.2013070104

Suh, B., & Han, I. (2002). Effect of Trust on Customer Acceptance of Internet Banking. *Electronic Commerce Research and Applications, 1,* 247-263. https://doi.org/10.1016/S1567-4223(02)00017-0

Suki, N. M., & Suki, N. M. (2017). Predicting Consumers' Intention to Adopt Mobile Commerce: A Cross-Country Empirical Examination between China and Malaysia. *Telematics and Informatics, 34,* 382-397.

Taylor, S., & Todd, P. A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research, 6,* 144-176. https://doi.org/10.1287/isre.6.2.144

Teo, T., & Liu, J. (2007). Consumer Trust in e-Commerce in the United States, Singapore and China. *Omega, 35,* 22-38. https://doi.org/10.1016/j.omega.2005.02.001

Turban, E., King, D., Lee, J. K., Liang, T. P., & Turban, D. C. (2019). *Electronic Commerce: A Managerial and Social Networks Perspective.* Springer. https://doi.org/10.1007/978-3-319-58715-8

Valentine, V., & Gordon, W. (2000). The 21st Century Consumer: A New Model of Thinking. *International Journal of Market Research, 42,* 1-16. https://doi.org/10.1177/147078530004200203

Van der Heijden, H., Verhagen, T., & Creemers, M. (2003). Understanding Online Purchase Intentions: Contributions from Technology and Trust Perspectives. *European Journal of Information Systems, 12,* 41-48. https://doi.org/10.1057/palgrave.ejis.3000445

Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences, 39,* 273-315. https://doi.org/10.1111/j.1540-5915.2008.00192.x

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science, 46,* 186-204. https://doi.org/10.1287/mnsc.46.2.186.11926

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly, 27,* 425-478. https://doi.org/10.2307/30036540

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly, 36,* 157-178. https://doi.org/10.2307/41410412

Wambui, C., & Mbarika, V. (2010). E-Commerce Adoption in Developing Countries: A

Model and Instrument. *Information Technology for Development, 16,* 246-265.

Wetzels, M., Odekerken-Schröder, G., & van Oppen, C. (2009). Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *MIS Quarterly, 33,* 177-195. https://doi.org/10.2307/20650284

Woon, Y. K., Yew, S. K., & Chong, A. Y. (2015). Predicting the Adoption of Mobile Social Commerce: Towards an Understanding of the Interplay between Value Drivers and the Moderating Effect of Time Consciousness. *Computers in Human Behavior, 49,* 75-90.

Yang, Z., Cai, S., Zhou, Z., & Zhou, N. (2012). Development and Validation of an Instrument to Measure User Perceived Service Quality of m-Commerce. *Decision Support Systems, 53,* 669-678.

Zainab, B., Awais Bhatti, M., & Alshagawi, M. (2017). Factors Affecting e-Training Adoption: An Examination of Perceived Cost, Computer Self-Efficacy and the Technology Acceptance Model. *Behaviour & Information Technology, 36,* 1261-1273. https://doi.org/10.1080/0144929X.2017.1380703

Zhang, X., Guo, X., & Lai, K. K. (2011). Examining the Influence of Online Reviews on Consumers' Decision-Making: A Heuristic-Systematic Model. *Decision Support Systems, 51,* 819-828.