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Investigating the Factors that Influence Purchase Intention and Use of Social Commerce Across Different Age Groups

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Certificate of Original Authorship

I, Abdulrahman Andijani, declare that this thesis is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Engineering and Information Technology at the University of Technology Sydney.

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List of Publications

The following research articles were produced to publish some concepts and findings from work undertaken by the author during this Ph.D. research study.

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Abstract

Due to the advancement in Information and Communication Technology, businesses have mainly shifted from a brick-and-mortar format to an online format. In this respect, a revolution in social commerce brought more automated and faster services. To examine the antecedents of Saudi customers' social commerce acceptance, this research integrates an extended unified theory of acceptance and use of technology (UTUAT2), social commerce constructs, and user trust. Moreover, this study examines customer gender, age, and use experience as moderators on UTUAT2 factors and purchase intention relationships. This research used a quantitative approach to gather cross-sectional data from 596 social commerce users in Saudi Arabia. The confirmatory factor analysis (CFA) and structural equation modeling (SEM) was performed in Smart-PLS 4 software.

The structural model results illustrate that performance expectancy, facilitating conditions, price value, habit, social commerce constructs and user trust are positively related to customer purchase intention. Furthermore, facilitating conditions, habit, and purchase intentions positively relate to customer use behavior towards social commerce. The research findings also demonstrate that customers' gender, age, and experience moderate the effects of facilitating conditions, price value, hedonic motivation, and habit on purchase intentions and use behavior. Based on the findings, this research provides guidelines to researchers, businesses, policymakers, and government to understand the dynamics of social commerce and devise their policies accordingly.

Keywords: UTUAT2, social commerce constructs, user trust, purchase intention

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CHAPTER 1: INTRODUCTION

Chapter 1 overviews the research on the antecedents of social commerce in the Saudi context. The first section of this chapter outlined the study's background, research statement, objectives, and questions. The last section of this chapter comprises this study's significance, followed by a detail of methods and procedures. This chapter ends with a thorough summary of the dissertation.

1.1. Research Background

Social networking sites (SNSs), such as Facebook, Twitter, and Instagram, are becoming more and more popular day by day and influencing customer behavior by transforming the innovative E-commerce paradigm into social commerce (Akram, Junaid, Zafar, Li, & Fan, 2021; Andijani & Kang, 2022; Mou & Benyoucef, 2021; Riaz et al., 2021). With the emergence of web technology, 2.0, and social media (SM), social commerce enables customers to incorporate and take part in online marketing activities as well as create social platforms to connect with other people in the social community and seek out information that ultimately influences their purchasing choice (Changchit, Cutshall, & Pham, 2020; Hajli, 2015; Lin, Wang, & Hajli, 2019; Mou & Benyoucef, 2021; Saprikis, Markos, Zarmpou, & Vlachopoulou, 2018). Nowadays, businesses use social media more frequently since it is a relatively new development that has altered online communication (Riaz et al., 2021; Saprikis et al., 2018). For instance, online forums, web blogs, and podcasts are quickly developing into key sources of client data, key communication channels, and essential elements of personal, social, and professional life (Abed, 2020; Abed & Ezzi, 2020). In addition, social networking sites (SNSs) have been used most widely in Saudi Arabia, which is the main reason the country has seen a rise in e-

commerce. According to Abed and Ezzi (2020), social commerce -based enterprises have grown in Saudi Arabia over the past several years. There has been an emergence of local families selling cultural foods and goods on Instagram, referred to as '*usar al muntija*'; which means family businesses selling home-cooked meals usually run by female entrepreneurs. Social media platforms like Instagram are active in social commerce, specifically in these family businesses, and it is prevalent in Arab countries such as Saudi Arabia, Kuwait, and Egypt (Alarfaj, Solaiman and Marshall, 2019). Internet expansion and information and communication technology advancement have changed our daily life. Therefore, many small- and medium-sized businesses are starting to use social commerce (Abed, Dwivedi and Williams, 2016). The most influential social commerce acceptance and trust theories have been developed in Western countries. Culturally, a division exists between some parts of the world (e.g., Saudi Arabia) and the Western regions. This division can be seen as a difference in the values necessary to people, such as celebrities and advertisements (Aljasir, 2019). The populace of Saudi Arabia is quickly expanding its appearance on SNSs. People of Saudi Arabia have been using their cell phones more frequently in the past ten years; phone usage has reached 1.8, meaning that for every ten persons, there are 18 mobile phones (E Makki and Chang, 2015). According to GMI (Global Media Insight) 2022, Saudi Arabia has a considerable number of social media users; today, more than 90% of the people in Saudi Arabia use social networks. According to GMI, WhatsApp is the most popular messaging app in Saudi Arabia, with 30.39 active users (Statista, 2022). Instagram is the most popular social network platform in Saudi Arabia in 2022, with 27.88 million active users (Statista, 2022). Instagram is followed by Twitter (24.94 million), TikTok (24.54 million), Facebook (24.03 million), and Pinterest (10.38 million) (Statista, 2022). Saudi social media users are highly engaged one social

media. Saudi Arabia placed top in the world in terms of average daily time spent on social media in 2021, according to a poll conducted by Hootsuite and We Are Social, with users spending an average of 2 hours and 56 minutes each day on social media platforms. Saudi social media users use various social media sites, WhatsApp is the most popular social media network in Saudi Arabia, according to the Communications, Space and Technology Commission (CITC), with 88% of social media users utilizing the WhatsApp. Furthermore, Saudi social media users mostly utilize social media for news and enjoyment. According to a poll conducted by Hootsuite and We Are Social, social media is the primary source of news for 45% of internet users in Saudi Arabia, while 60% of social media users in Saudi Arabia use it for pleasure.

Despite the growing popularity of social media, Saudi Arabia has limited research on social commerce acceptance (Salma Abed, 2016; Abed, 2018). This growth was noticed particularly with the help of the Maroof e-service, which the Saudi government developed. Maroof is "a free interactive platform where customers can rate and evaluate online stores based on past experiences, which may influence customer trust. This service also benefits online retail and business owners, who can reach more customers" (Alotaibi, Alkhathlan and Alzeer, 2019, p. 2).

Even though Saudi Arabia is considered one of the Middle East's largest social commerce markets by 2013, social commerce acceptance is still low, and people are hesitant to shop online (Alshehri and Meziane, 2013). Almost all the people in Saudi Arabia speak Arabic, as it is the national language of Saudi Arabia. In addition, the vast majority of the population's religion is Islam. Grouping shared language and mutual religion has resulted

in proud people of shared heritage, tradition, and cultural unity attached to their norms (Eid and Al-Anazi, 2008). It is challenging to introduce new technologies in populations with such characteristics. That is why privacy concerns are a vital variable in this study. Most of the previous studies were outdated and done on e-commerce only, so it was fundamental to consider studying the behaviors and attitudes of the Saudi population regarding social commerce.

With Web 2.0, the Internet has evolved into an interactive social platform where businesses can communicate directly with their customers through social media. Communication with consumers leads to purchasing products and services on social media, called 'social commerce' (Lai and Turban, 2008; Liang and Turban, 2011). The social commerce notion was initially presented in 2005 on the Yahoo website to depict the blending of commerce activities on SNSs (Wang and Zhang, 2012). In social commerce, one platform includes sellers, customers, peers, and possible future clients and all their communication activities pre-and post-transaction (Esmaeili and Hashemi G, 2019). With the growth of SNSs and online commerce, it has become crucial for businesses to understand the underlying psychological and social factors influencing customers' decision-making when purchasing through social media platforms.

In recent years, the notion of social commerce has grown in popularity as more and more customers use social media to discover, evaluate, and purchase items and services. SCCs enable consumers to share their experiences through social interactions on social commerce platforms (Liu et al., 2021). According to the findings of a study, SCCS positively promotes social support, community members' trust, and social presence. Furthermore, social support and social presence were proven to have a good effect on

community members' trust (Hajli, 2015). Consumers use other customers' knowledge, provide advice, and discuss their experiences on these platforms, which serve as a source of online social support. Although SCCs serve the same purpose of facilitating information sharing and establishing social support platforms for consumers, they differ in their technical capabilities.

Whinston et al. (2011) state that one factor affecting social commerce is ratings and reviews, recommendations and referrals, and forums and communities. The reviews and ratings provide detailed information about the products for the benefit of other potential purchasers. People can share product reviews and rate products online. According to Senecal and Nantel (2004), customers should depend more on other consumers' experiences, such as product recommendations and referrals, because they cannot physically experience the products or services online. Similarly, Online communities and Internet forums are social environments that allow people's social interaction. Participants of online communities engage in various group activities and assist one another via social interactions and communications on the provided platform (Bagozzi & Dholakia, 2002). As SNSs have become a critical source of information and recommendations for customers, it has also supported the emergence and facilitated online transactions and sales. Regarding social commerce antecedents, past research has identified and studied many elements that impact purchase intent and social commerce usage behavior.

Numerous studies have examined the antecedents of social commerce in the Saudi context. For example, Sheikh et al. (2017) investigated the antecedents of social commerce acceptance in Saudi male consumers using the UTUAT2 framework and social commerce constructs. The limitation of Sheikh et al. (2017) study is that they only considered Saudi

male customers as research participants. Sheikh et al. (2017) research only included the young male demographic, and they all had the same educational background (university-level graduate students) with the same age group; moreover, all the participants were from one university, and surely that does not represent even the male population of Saudi Arabia. This might limit the generalizability of Sheikh et al. (2017) research findings. Furthermore, Sheikh et al. (2017) research did not incorporate customers' gender, age, and experience as moderators.

Abed (2018) examines UTUAT (Venkatesh et al., 2003) factors (such as PE, EE, SI, and FC) as an antecedent of trust and behavioral intentions to use Instagram as a social commerce channel in Saudi Arabia. However, the limitation of Abed's (2018) research is that it only considers UTUAT dimensions as potential factors influencing Saudi customers' purchase intention who use Instagram. It did not incorporate additional dimensions of UTUAT2 (such as HM, PV, and Habit) proposed by Venkatesh et al. (2012) social commerce constructs and customer trust. Another limitation of Salma Abed's (2018) study is that it did not examine the use behavior of social commerce. In another study, Abed (2020) examined the factors influencing social commerce acceptance by Saudi SMEs by employing technology organization environments as a theoretical framework. Furthermore, Abed (2020) focused on trust, purchase intentions (PI), and the variables that motivate social commerce use. As an entrepreneur or a business owner wanting to sell a product, setting up a social media page of the business and showcasing the product, and selling through social media is what the newest entrepreneurs are opting for instead of hiring someone to build and run a website.

Previous research studies have examined customer PI; however, relatively few have

concentrated on SCC and customer trust in determining PI and use behavior toward social commerce. Similarly, Williams et al. (2015) suggested that the possible effect of elements such as age, gender, experience, and voluntariness should be considered, as was tried in the original UTAUT by including them as moderators (Venkatesh et al., 2003). A critical review of both the UTAUT and UTAUT2 by Venkatesh et al. (2016) identified a gap in the literature regarding researching the effects of these moderating factors within the context of comprehensive theoretical frameworks. Previous research suggests that the moderating effect is more substantial among men (Venkatesh et al., 2003) and youngest customers (Falk et al., 2007). Older users (i.e., the elderly) tend to be reluctant to change (Laukkanen et al., 2007) and virtual services (Falk et al., 2007); indeed, older consumers (i.e., the elderly) tend to be resistant to change such as social commerce (Arenas-Gaitan et al., 2015). Social commerce constructs (SCCs) are Web 2.0-era social platforms that enable customers to create content and share their experiences. According to Shanmugam et al. (2016), social commerce is the relationship between social media and e-commerce, and it is the use of social media platforms like Facebook, Instagram, and Twitter to facilitate online transactions between customers and businesses.

Previous studies on social commerce mainly have been conducted in the Western context, while Saudi Arabia still lacks related studies. Nonetheless, little effort has been made to investigate online consumer behavior in the context of social commerce in Arab countries such as Saudi Arabia, where a major customer worry is a lack of trust in the veracity of product information before making purchase decisions. While previous research has acknowledged the importance of trust in social commerce adoption, there is limited understanding of how trust influences user behavior and adoption (Wang et al., 2022).

Furthermore, there is limited research on the integration of UTUAT2 with other technology adoption frameworks, such as social commerce constructs as predictors of social commerce adoption for online shopping (Faqih and Jaradat, 2021).

To bridge this gap in the literature, this research borrowed the UTUAT2 framework from Venkatesh et al. (2012). It used UTUAT2's additional constructs, such as HM PV, habit, SCCs, and customer trust, to investigate the antecedents of social commerce acceptance in Saudi Arabia. After the announcement of Saudi Vision 2030, Saudi women are permitted to drive and have more economic freedom than in the previous decade; therefore, it is essential to investigate the antecedents of the social commerce acceptance of Saudi female customers. According to the researcher, developing a better theoretical knowledge of age disparities is critical in fostering individual adoption and sustained use of new information technologies.

Glas et al. (2018) asserted that gender inequities persist in the Middle Eastern socioeconomic structure. Thus, it may be interesting to examine the impact of gender as a moderator variable in the expanded UTAUT2 to understand better how the model fits with individuals of different genders for social commerce acceptance in Saudi Arabia. The researcher anticipates that UTUAT2 factors facilitation conditions, hedonic motivation, price value, and habit are moderated by gender, age, and experience. Furthermore, while attempting to manage business transformation, understanding the effects of customer gender, age, and experience on user engagement with technology is a vital component of organizational psychology. Therefore, the researcher used customer gender, age, and experience as moderating variables to examine how varying customer profiles influence their PI and use behavior toward social commerce.

By comprehending these antecedents (UTUAT2 dimensions and SCC), businesses can improve their social commerce strategies and optimize social media platforms, increasing customer engagement, trust, and purchase intentions. By doing this, the researcher uncovers the primary determinants of social commerce user behavior by examining UTAUT2 and SCC, helping firms to build more successful strategies for acquiring and retaining consumers. In the continually changing field of social commerce, this insight may help firms improve their online platforms, adjust marketing strategies, and boost consumer engagement. Furthermore, this research enhances the comprehension of the specific dynamics and complexity of technology usage.

Consequently, this research adds to the expanding body of knowledge in this specific domain by concentrating on these frameworks, leading to breakthroughs in theory, practical implementations, and informed decision-making for enterprises operating in the social commerce arena. Moreover, by investigating UTAUT2 along with SCCs, the researcher may capture the unique dynamics and peculiarities of social commerce that other aspects or theories may not fully address. This investigation allows a more precise understanding of the elements influencing purchase intentions in social commerce. While other factors may impact Saudi customers' purchase intentions, examining UTAUT2 and SCCs allows researcher to focus on the specific dynamics and variables that are most significant in the context of technology adoption and usage for social commerce purchase intentions. Such as SCCs involve greater contact among users that can influence customer-perceived value during consumers' usage of social commerce platforms, which might influence purchase intention (liu et al., 2021). Considering that pre-purchase information is available on many social media platforms, ratings, reviews, and recommendations of

products and services have become a top priority for consumers in this region. Furthermore, one of the most significant barriers to the growth of social commerce is the accuracy of the product's information. This research will aid consumers in making educated purchase decisions and sharing their product- and service-related experiences with other members of online communities to facilitate social commerce activities.

This research contributes to a better understanding consumer behavior in social commerce by using this framework and providing practical advice to enterprises operating in this arena. SCCs have an impact on trust as well; according to Hajli (2015), customer ratings increase the amount of trust, which leads to greater purchases on that platform. Hence, this research helps uncover the important characteristics that impact customers' intent to purchase through social networks, which has practical consequences for organizations operating in this arena. This insight may assist firms in tailoring their marketing campaigns, designing user-friendly interfaces, and improving social commerce capabilities to raise buy intent and, eventually, generate sales. Therefore, UTUAT2 and SCCs may be employed as a theoretical framework to investigate the antecedents of Saudi consumers' purchase intention and social commerce usage behavior, and the researcher believes the current research will contribute to the existing body of social commerce and individual differences literature by investigating the antecedents of social commerce in the Saudi context.

1.2. Statement of the Problem

Social commerce is a new e-commerce paradigm that uses Web 2.0 technology and social media to enhance customer interactions and transactions. Social commerce systems

include ratings, reviews, recommendations, referrals, forums, and communities that allow users to share their thoughts, experiences, and preferences with other users. These features are regarded as social commerce components that might impact customer behavior and decision-making while purchasing online. However, the elements that influence customer adoption and use of social commerce frameworks are not well examined, particularly in the middle eastern context. Furthermore, the effects of social commerce constructs on customer purchase intentions and social commerce usage are largely unknown in the Saudi context (Wang et al., 2022). Thus, there is a need to investigate the antecedents that influence the acceptance and use of social commerce. The variables were chosen based on the predominant theory in technology acceptance – the UTAUT2, the social commerce construct (SCC), and user trust. Evaluating existing literature on these variables found a lack of research about social commerce in Saudi Arabia. The UTAUT2 is one of the important frameworks that might explain Saudi consumers' acceptance and use of social commerce. UTAUT2 has been widely used and validated in various contexts, but its applicability and validity in social commerce constructs have not been thoroughly investigated. Furthermore, Faqih et al. (2021) suggested that there is insufficient research on the integration on UTUAT2 with other social commerce frameworks. Therefore, there is a need to integrate UTUAT2 with other social commerce farmeworks as predictors or modifiers of consumer acceptance and use of social commerce platforms for online shopping (Faqih and Jaradat, 2021).

Furthermore, previous research asserted a lack of studies incorporating individual differences in social commerce research (Schirmer et al., 2018). Therefore, to bridge this literature gap, this research examines the moderating effects of customer gender, age, and

experience on PI and use behavior. This study would substantially benefit businesses or individuals using social commerce as their platform and help them better understand their target audience across various age groups. Additionally, this study will recommend variables that may impact user trust and intention in using social commerce and which age group is more likely affected by which factor. A thorough review of social commerce studies, in general, found a lack of representation of different age groups, including individuals 30 years of age.

Objectives of the Study

The previous sections demonstrated that the primary goal of this research is to investigate the aspects that contribute to social commerce and user behavior. This is an emerging yet underexplored research area in terms of its usage varying in different gender and age groups. The purpose of this study is to contribute to the social commerce literature. Initially, the current research develops an understanding of the antecedents that affect Saudi customer purchase intention and use behavior toward social commerce. Second, whether social commerce constructs and user trust impact their purchase intention and use behavior towards social commerce, third, this research investigates moderating effects of Saudi customers' gender, age, and use experience UTUAT2 factors, including performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), hedonic motivation (HM), price value and habit and purchase intention (PI) relationships. To meet these aims, the following research objectives were formed:

- This study investigates the key elements affecting Saudi Arabian consumers' PI and social commerce use behavior.

- This research aims to use and extend the comprehensive UTUAT2 framework and SCC as an antecedent of social commerce in the Saudi context.

- Additionally, this study explores the elements that promote the trust of Saudi people in social commerce.

- This research also investigates the influence of SCC on customer trust and their purchase intention toward using social commerce.

- This research examines the moderating effect of customers' gender, age, and experience on FC, PV, HM, habit, purchase intention, and social commerce use behavior relationships.

The research obtained relevant data from Saudi customers through an online survey to fulfill the mentioned objectives. The researcher employed SEM through Smart-PLS to apprehend social commerce adoption and accomplish the research objectives. The social media users were contacted to know their PI and adoption of social commerce in Saudi Arabia. They highlighted different aspects, like the easiness of transactions, time factor, security concerns and complications in transactions, cost factor, social pressures, entertainment, and availability of digital equipment. Customers' responses were carefully saved, recorded, entered into software, and finally analyzed to get the results.

1.3. Research Questions

This study has the following research questions:

RQ1: How do UTUAT2 parameters affect Saudi buyers' intention to buy through social commerce?

a) How do PE, EE, SI, FC, HM, PV, and habit affect Saudi customers' purchase intention?

b) How do FC, habit, and PI affect customer social commerce use behavior?

RQ2: How do social commerce constructs influence Saudi buyers' trust and PI toward using social commerce?

a) How does Saudi customers' trust in social commerce influence their PI?

RQ3: Do the customer's gender, age, and experience with online shopping through social commerce moderate the influences of FC, PV, HM, and habit on Saudi customers' purchase intention and use behavior?

1.4. Significance of the Study

Most existing research focuses on the elements that influence the acceptance of social commerce in small businesses. However, there is a lack of related studies in the Saudi Arabian context despite its regional growth. The existing studies primarily focused on e-commerce instead of social commerce, which creates substantial room for exploring the topic as more than 97 percent of internet users in social and professional networks rely on Social media (Statista, 2022). A vast advancement has been witnessed in mobile technologies and applying them in all aspects of daily living due to the government's initiative to develop pioneering applications to simplify many aspects of citizens' everyday lives as part of Saudi Arabia's Vision 2030. Accepting new technologies has become a part of culture irrespective of gender and generational differences. This raises the need to understand the factors that influenced the population to trust social commerce and persuaded them to adopt it to purchase and establish businesses based on it, as existing

literature illustrates that these factors were examined with reference to the Western countries and the prevailing trends, this study has significance because it has based its investigation on the cultural settings of Saudi Arabia where there has been scant research available on the social commerce phenomenon. The findings of this study will be necessary to a number of business-to-consumer (B2C) stakeholders. A brief account of its significance is as follows:

- The current study aims to comprehend the impact of UTUAT2 factors, SCC, and user trust in Saudi customers (having different gender and age groups and use experience) PI through social commerce for online shopping. The findings of this study will benefit all types of online businesses to attract more consumers such as (a) online businesses may utilize SNSs to increase user engagement, make tailored suggestions, and offer rewards for user-generated content, (b) online businesses can use social media platforms to highlight positive reviews and testimonials, reply quickly to consumer inquiries and concerns, and participate in socially responsible projects to develop a positive public image and (c) and Online businesses may provide a smooth and personalized user experience, provide rewards and loyalty programs, and employ targeted advertising to retain existing consumers and attract new ones.

- The findings of this study will assist online businesses in identifying areas for improvement and making adjustments that will better fulfill the requirements and expectations of consumers.

- The findings of this research will assist firms in discovering areas for development, such as determining consumer wants and preferences. This information may then be utilized to create new goods or services or improve current ones, to suit the customers' needs.

- This research's findings will also help suppliers understand customer demands and preferences. This will enhance their capacity to supply the correct products and services at the right time, strengthening their connection with the company.

- The findings of this research may benefit the Saudi e-government's think tank in formulating the policy framework concerning social commerce. This research will also help develop measures to enhance public services.

- Web developers will also benefit from the study's findings to develop more user-friendly and secure websites for social commerce users to enhance their trust.

- By using this study's findings, Saudi government officials will be in a better position to recognize and track the inadequacies of the current social commerce system. It will also be beneficial in providing information about the factors affecting social commerce for countries with similar contexts.

1.5.   Research Methodology Overview

This study employed a quantitative research approach to take the positivist view into account for representing the phenomenon under study as accurately as possible. This study was carried out through an online survey about the different variables and the intentions of users to purchase through social commerce sites based on the variables' presence (or lack of). For this purpose, a detailed questionnaire based on the variables listed in the conceptual framework was administered online. To examine the anticipated propositions, the data was gathered from Saudi nationals who are regular users of different social media platforms and belong to different gender and age groups. The study's sample encompassed social commerce users from different gender, ages, and educational levels, namely high

school graduates, post-secondary diplomas, bachelor's degree holders, and those with master's or doctorate degrees. The proposed model of this study contains thirteen constructs with multiple indicators that were assessed on a five-point Likert scale. In this regard, the researcher reviewed each concept independently and borrowed items from previous surveys that were published in peer-reviewed journal articles. The survey was first created in English before being translated into Arabic. CFA was performed to assess the survey's validity, and SEM was applied in Smart-PLS 4 to test the hypotheses.

1.6.   Thesis outline

The current dissertation consists of six chapters. Chapter 1 thoroughly introduces the research, its background, purpose, significance, and a thorough description of the research methods. It also provides brief detail of the structure of the dissertation. The second chapter is devoted to a thorough review of previous literature. An introduction to social commerce and its features is provided in this chapter. This chapter seeks to identify the gaps in the literature which were not previously addressed. A literature review of the available studies identified the gaps in the various factors enabling the Saudi population to trust social commerce for making purchases and conducting online businesses. Chapter 3 presents the anticipated research framework and related hypotheses.

The theories and models that provide the basis of this research model are further explained in this chapter to fill in the identified knowledge gaps. It also justifies each hypothesis associated with the theoretical model of the study. The research framework of this study is presented at the end of Chapter 3. Chapter 4 illustrates the research methodology. It explains the research strategy, quantitative method, tools, population, sample, and data

collection approach used in the present research. The processes for analyzing quantitative data are covered in Chapter 5, comprising descriptive statistics and the testing of hypotheses. The first part of this chapter presents pilot study detail and data screening to ensure it is appropriate for multivariate data analyses like CFA and SEM. Chapter 6 discusses theoretical implications, conclusions, limitations, and future research directions. The implications for both researchers and practitioners are also discussed. A reference list and appendix are then provided. Figure 1.1 illustrates the thesis structure in detail.

Figure 1. 1: Structure of the Thesis

Introduction		
Research background	Research questions	Significance of study

Literature Review		
s-commerce and its background	variable and influencing factors	Summary of related researches

Theoretical Background and Hypotheses		
Reviewing existing theories	Research Model and hypotheses	Conceptual Model

Methodology		
	Quantitative Approach	

Data Analysis		
Descriptive and model testing	hypotheses testing	Survey Results

Discussion and Implications		
Findings and Implications	Conclusion and Limitations	Directions for future research

1.8 Chapter Summary

The dissertation's overall theme is introduced in this chapter. The chapter introduces the fundamental research problem and thoroughly guides readers to comprehend this research's significance and rationale. Primarily, it clarifies the main research idea and counts the key benefits and risks of online banking, objectives, and gaps in the previous studies. It emphasizes the scarcity of research in the Middle Eastern context, especially in Saudi Arabia, to understand social commerce with a more integrative model and the impacts of unique variations in customers' gender, age, and social commerce use experience. This research will provide the impetus for academicians and practitioners to comprehend the implications for decision-making and future research directions.

CHAPTER 2: REVIEW OF THE LITERATURE

Chapter 2 is mainly concerned with the background of social commerce and the factors influencing user trust and PI. A detailed review of the literature is presented in Chapter 2. This chapter focuses on social commerce and its background as an emergent business trend. Then, various factors influencing buyers' intent, such as gender, age, and experience, are discussed. This chapter ends with the summary consolidating the review of related studies and gaps identified.

2.1 Research background

The development of Web 2.0 technology has significantly altered how the web is structured. Web 2.0 allowed users to use blogs, online communities, wikis, and social networks more widely (Sheikh *et* al., 2019). As of 2022, there are globally 4.70 billion active social media accounts. Mobile internet users are 4.32 billion, whereas 4.2 billion people use social media actively. The world revenue from e-commerce exceeded 4.2 trillion U.S. dollars globally in 2021 alone. This demonstrates the importance of SNSs in the contemporary global environment. Various social media websites are available for individuals and companies to use. This boosted small businesses and attracted people to present their products in the market around the world. The social media websites include Twitter, Facebook, Instagram, and YouTube. Many global online retailers, including Amazon, have also provided the facility for small businesses to register their products on their platforms to benefit from online social capital (Statista, 2022).

According to statistics, in 2021, Facebook will have 2.895 billion monthly active users, making it the world's most highly used social media platform. Only YouTube's

advertisement reach is 2.291 billion. Different businesses are utilizing YouTube to improve their products' image in the eye of prospective buyers. Moreover, brand awareness can be raised by adding more engaging content to the YouTube video library. According to recent research, Instagram's potential advertisement reach is 1.393 billion, adding to social commerce revenue (Statista, 2022). All these statistics enhance the significance of social commerce in the current global scenario.

2.2 UTUAT2 Framework

2.2.1 Performance Expectancy (PE)

It is an acknowledged target of every user to get better in both their personal and professional lives. Every user tries to make his/her performance more effective and efficient. The UTAUT model assumes that adopting a technology or information system may easily attain this goal. PE is "the extent to which a person feels that employing the system will allow him or her to obtain advances in work performance" (Venkatesh et al., 2003). Venkatesh et al. (2003) and Venkatesh et al. (2012) asserted that PE is the most important forecaster of a person's PI in all compulsory and voluntary circumstances.

2.2.2 Effort Expectancy (EE)

PE indicates the consumer's view of the usability of technology. According to Venkatesh et al. (2012b), EE is "the amount of ease related to the use of the system." The term "EE" denotes consumers' projections that technological use will be effortless for their work. The UTAUT and UTAUT2 verified EE as one of the most powerful predictors of buying intent. Other studies also reported similar results (e.g., Kim & Park, 2009; Venkatesh et al.,

2012b). It is because using technology for online shopping through social commerce minimizes the efforts of individual customers.

2.2.2 Social Influence

According to the systematic review by Friedrich (2015), social influence positively influences user trust. Social network advertising refers to any method of implicit or explicit advertising conveyed through social media websites and platforms (Taylor et al., 2011). Abed (2018) reported that the adoption of social commerce is positively predicted by social influence. A process by which a person's attitudes, beliefs, and behavior are modified due to social interactions is also referred to as 'social influence' (Beyari and Abareshi, 2019). Taking into consideration the vast popularity and embrace of social media sites, celebrity personalities exploit social network websites as a profitable marketing income.

2.2.4 Facilitating Conditions (FC)

Users that engage with any system need specific tools and infrastructure to do their tasks. These amenities are referred to as facilitating conditions. According to Martins et al. (2014), FC represents "the magnitude to which a person believes that the infrastructure of a system exists to support its use." FC provides the necessary infrastructure and assistance to users of any system to use it effectively. The UTAUT framework hypothesized its connection to PI and usage behavior (Venkatesh et al., 2003). Prior studies (e.g., Andijani and Kang, 2022; Sheikh et al., 2017) stated a positive association between FC and use behavior.

2.2.5 Hedonic motivation (HM)

Venkatesh et al. (2012b) stated that HM refers to "the amount of enjoyment or pleasure experienced when using a technology." Venkatesh et al. (2012b) reported that HM positively and significantly influences PI. Later, this was included in the UTAUT2 framework. They also supposed that HM and PI link is moderated by customer gender, age, and experience. From a conceptual viewpoint, HM was the felt pleasure that was examined in earlier IS literature (Brown & Venkatesh, 2005). In some earlier studies, it was thought of as the influence of individual pleasure or pain receptors on his/her willingness to accept the desired way.

2.4.6 Habit

SNSs such as Twitter, Instagram and Snapchat have taken over users' time and have become a part of everyday life. Social media has changed the way how people connect; for example, Instagram, which is mainly an image-sharing site, has become a communication platform for over 800 million users worldwide (Bürklin and Faber, 2019). Businesses should take advantage of the fact that so many consumers are connected online by making a social commerce strategy to increase sales and build client relationships. A study on social media uses found that people, especially young millennials, constantly check their social media and spend roughly eight hours daily on SNSs (Siddiqui, Mannion and Marciniak, 2019). Social media and SNSs have become important in the day-to-day life of people of all ages. Part of the reason for the dominance of social media is that users can share their everyday activities and reach markets or communities they would not have otherwise been able to reach (Hashim, Nor and Janor, 2017). Today's shopping has evolved into a social activity with many new ways to engage and entertain the shopper.

Engaging the consumer is vital in today's market because millennials look for experiences and socializing (Blazquez et al., 2019; Jin and Ryu, 2020). This is why vendors have to become more social to keep their users engaged and active on their pages. Hence, because of the internet growth, the purchasing intention of millennials is increasing over generations (Bilgihan, 2016). To succeed in the current market, businesses must use social commerce platforms to reach their potential customers.

2.2.7 Price Value (PV)

Social commerce is used by many businesses, from small start-ups to large corporations, because it is a reasonably cost-effective way to promote firms, brands, and products (Han and Kim, 2017). In a study about female small business owners, Alkhowaiter (2016) stated that lack of charge, ease of use, and reaching and interacting with customers drive business owners to make social media their primary communication avenue. The findings of a study conducted on entrepreneurs in Malaysia revealed that most of the participants believed that social commerce is an advanced and more productive method of conducting their trades (Hashim, Nor and Janor, 2017). Online SNSs are an inexpensive and easy marketing approach and would allow entrepreneurs to achieve their targets and succeed in their projects faster (Abed, Dwivedi and Williams, 2015). This study is impressive because it investigates the elements influencing buyers' willingness to use social commerce. The prior literature showed that several social commerce theories had been utilized to predict, observe and modify consumers' intentions in social commerce in different geographical locations. It also identified different constructs and variables that influence the intention of consumers. Customers have to pay while availing online shopping through social media platforms, and customers frequently assess the perceived benefits of a product or service

against its cost before making a purchasing decision; hence price value is critical in influencing customer purchase intentions. From the customer's perspective price value is an important component that affects the worth of a product or service. Customers want to get the best value for their money and compare prices across different items before making a purchase choice. The significant constructs of social commerce are discussed below.

2.3 Social commerce

Social commerce refers to "the use of social media technologies to assist online sellers and buyers in acquiring services and products as they require" (Liang & Turban, 2011). The development of social commerce as a new kind of commerce because of social media's widespread acceptability and awareness. It allowed users to create their online content, providing them liberty and choice to show creativity (Abou-Elgheit, 2019). Social commerce also allows business owners and sellers to access a variety of marketplaces by utilizing social media, enabling them to access customers easily (Hossain and Kim, 2020). The distinct factor distinguishing social commerce from e-commerce is the liberty to generate content, making it an influential tool. Online platforms have become places where users freely exchange information, stories, and viewpoints on websites related to photos, music, perception, and expertise. One critical component of the growth of social media is the attractiveness of SNS applications. It has been argued by scholars that social communication playing an effective role during the decision-making process of consumers resulting in orchestrating a convincing customer experience (Huang and Benyoucef, 2013; Kim, and Kim, 2018). In e-commerce research, the value of social interaction is widely acknowledged (Lu et al., 2016). Consumers are keen on doing online research before buying a product and gaining recommendations (e.g., ratings, comments, and

suggestions). Consequently, they like to obtain accurate product information from the expertise and experience of others because products have become more technical and complex than ever. This type of information refers to user-generated content, and it asserts to be an information source that is more trustworthy than traditional media (Lin et al., 2019; Hajli et al., 2017). This user-generated content can aid in facilitating the buyer's timely purchase decisions. Hence, it may be created and spread quickly through various social contact activities (Huang and Benyoucef, 2013). As a result, social commerce research appears to be an important new area of consumer research.

The objective of SNSs is to create a platform that can be used for social interaction where people can interact socially and share their experiences and information, and perform activities of mutual interest. In addition, these SNSs are now widely used for capturing potential buyers by companies, and they are becoming part of this SNSs to connect with customers so that the attention of customers can acquire by posting, publishing, and advertising the targeted content through their pages on these SNSs such as Twitter, Facebook, or LinkedIn, etc. Companies also try to motivate online shoppers via SNSs by using social commerce to share their remarks regarding the companies' products and services. Social commerce is sometimes referred to as Facebook commerce due to many people's affiliation with this largest social networking site, but social commerce is much more comprehensive than Facebook commerce.

Social commerce has shifted the trend from seller- to customer-oriented by changing the traditional business models and by adding the advanced features of Web 2.0 technology. By reviewing social commerce literature (Sheikh et al., 2017, 2019; Zhang & Benyoucef, 2016; Zhou et al., 2013), the authors concluded that the definition of social commerce can

be categorized into two paths. One increases users' content generation and invites people to share knowledge, experiences, and information regarding online shopping trends. On the contrary, the other type is related to companies using well-known SNSs like Instagram, Facebook, and Twitter to promote their goods and services on their official pages to get the intention of potential buyers. Both types of social commerce have their advantages outlined. The first type is useful for customers trying to find a well-matched product with their requirements in addition to reviews and referrals available as social commerce constructs. In contrast, the other effectively allows sellers to compete with their competitors.

Online shopping experience by consumers is entirely different from offline because online shopping, like social commerce enables consumers to learn about the effective use of SNSs and take the benefits of online shopping opportunities that are available by the companies through these SNSs. Previous literature has demonstrated that the upsurge of SNSs, such as referrals and recommendations, ratings and reviews, and forums and communities enrich people with sociability and are much more social than ever. These constructs are the social platforms explored from Web 2.0 to enable users to produce content and reveal valuable social information as they have. In addition, these social commerce constructs also provide opportunities to sellers and buyers regarding the use of available social information, offering advice, and sharing their experiences. They can be helpful for any individual in a social environment. The ratings and reviews are the constructs that guide businesses to shape their social commerce strategies. People can quickly post their purchase experiences and reviews online using this construct. These reviews and ratings could be pretty helpful for requisite information seekers about the

product. Additionally, the content generation by customers is also an activity of the popularity of these constructs.

2.3.1 Definition of Social Commerce

To a certain degree, there is a conceptual mix-up in the definition of social commerce in the literature, which causes different identifications of social commerce sites. According to Stephen and Toubia (2010), social commerce refers to "the concept of social commerce as an Internet-based social media platform that allows people to participate in the marketing activities and selling various items and services in online marketplaces." The concept of "social commerce " first emerged in the literature in 2005 concerning a novel business method (Akman & Mishra, 2017). Furthermore, SNSs are the platforms where users can communicate online and get guidance from other reliable people; through social networks, podcasts, chat rooms, blogs, tagging, rating, and recommendation systems, consumers can discover goods and services and make purchases. Previous research has acknowledged two main forms of social commerce : (1) social media sites that include saleable features that facilitate trade and commerce; and (2) conventional e-commerce sites that include socialization additions to enable user interaction and communication (Zhang and Benyoucef, 2016) (see figure 3 for detail). The former social commerce form is the focus of the bulk of previous research (Zhang and Benyoucef, 2016). This clarification of the types of definitions of social commerce was pivotal in understanding the literature regarding this topic. The widespread use of social media has attracted businesses to promote themselves and sell their goods and services using social media (Chung Han and Kim, 2017). The dissimilarity between e-commerce and social commerce is that in social commerce social media users can also have lists of other users who share

the same connections, so they can look into and browse the connections of other users as well (Taylor et al., 2011).

Figure 2.1: Breakdown of Social commerce
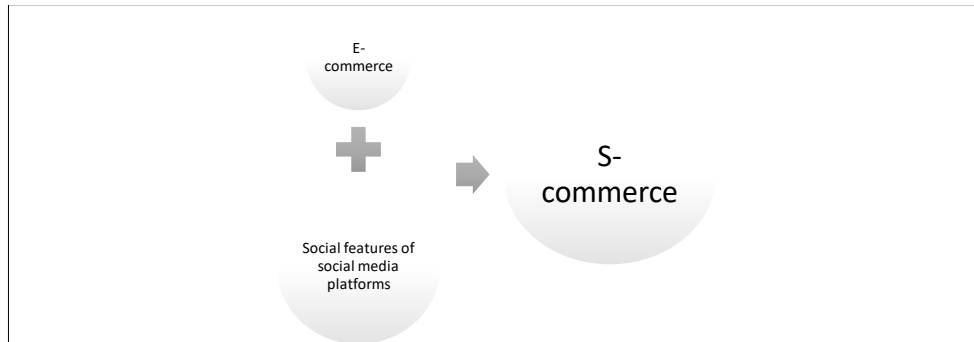
2.3.2 Social Commerce Constructs (SCC)

Online customers have social interactions with others; therefore, they may recognize the online environment made possible by social media differently than offline customers (Alalwan et al., 2019). It has been claimed in different studies that through social media and the rise of social platforms like forums, groups, ratings, reviews, referrals, and recommendations, customers can become more sociable. Additionally, interactions between online vendors and customers are personal (Alshawawreh et al., 2020). SCCs are social platforms that sprang out of Web 2.0 and gave users the tools to create content and share stories. Furthermore, SCCs enable social interactions and influence consumers (Wang et al., 2022). These constructs are crucial for influencing customer purchase intentions because they influence customers' trust, social support, perceived value, and information quality (Wang et al., 2022). For example, customers can increase their trust in sellers and products by reading reviews and ratings from other purchasers or seeking advice from friends or acquaintances on social commerce sites. The customers also utilize others' knowledge, give advice, and exchange experiences on these forums, which serve

as a platform for online social support. While all SCCs serve the same purposes of facilitating information exchange and creating social support networks for customers, they differ in technological proficiency. Ratings and reviews are some social commerce constructs that shape it. People can share product-related reviews online (Gan and Wang, 2017) and rate products. These evaluations and ratings provide comprehensive information about the products and services to facilitate future prospective consumers. According to research, the prevalence of third-party product reviews is rising (Chen and Xie, 2005). Another argument is that reviews by a third party lessen buyers' need to seek out advertising (Hajli and Sims, 2015).

Thus, reviews and ratings appear to produce helpful information for customers. Research has demonstrated that customer reviews and ratings encourage higher trust. However, information about the reviewers' identities influences community members' perceptions (Hajli and Sims, 2015). This matter has been raised due to concern over the fabricated ratings and reviews posted by third parties, which might create enough room to research the topic further to understand consumers' perceptions. Nowadays, businesses participate in consumer social conversations on platforms like SNSs. Companies like Amazon and eBay have realized the importance and auxiliary value of the reviews and feedback dropped by previous customers as their post-purchase experience. SCCs are interactive tools accessible on social media, social networking sites, and even on the company's business websites (Li, 2019; Sheikh et al., 2019). It has been proved that the social commerce constructs directly influenced the PI of the buyer.

Hajli (2015) asserted that social commerce constructs are the ratings, reviews, and referrals that users leave after purchasing through social commerce. SCC is primarily based on consumer interactions (Hajli, 2015). There is a distinct difference between

shopping online and shopping in stores; on online platforms, people cannot feel or touch the product, and it is more challenging to trust the vendor (Wu et al., 2018). This is where SCC comes into the picture, giving consumers a feel for the product with third-party opinions. The market in a technology-based economy is believed to be centered on decreasing human encounters; this is why trust plays a vital role in online commerce (Hajli et al., 2013; Hajli and Sims, 2015). By developing confidence in the seller and reducing the risk, consumers will look for new products online and be likely to purchase. Therefore, it is crucial to investigate the impact of trust on social commerce acceptance (Hajli et al., 2013).

Ratings, recommendations, and reviews have positively influenced social communications (Li, 2019). Certain website features of Web 2.0, for example, user ratings and reviews, would offer a suitable solution to overcoming the barrier of computerized lack of socialization. In today's world, prospective buyers (i.e., those who are researching a product they are interested in buying), through social media websites, can access an overabundance of peer-generated information regarding that product before making a purchase decision. It is projected that 97% of online buyers read users' comments and are swayed by them (Ahmad and Laroche, 2017). User-generated content from social commerce websites does not just echo the interactions among consumers but also gathers critical knowledge as a result of information consumers share about purchased products across the social networking platform (Bai, Yao, and Dou, 2015). User-generated content encouragement, such as evaluations and suggestions, represents the social perspective and impacts awareness, anticipations, opinions, attitudes, PI, and behavior. Additionally, social support directly affects shoppers' intentions to purchase, and user-generated content is a vital dynamic in social encouragement (Bai, Yao and Dou, 2015).

A study on SCC by (Hajli et al., 2013) showed that consumers' evaluation and assessments of social commerce websites had a constructive effect on consumers' trust. Another finding was that a user's recommendations and referrals on a social commerce website negatively affected the consumer's trust (Hajli et al., 2013). The basis of the SCC model by (Hajli, 2015) is that these constructs increase trust in social commerce.

Figure 2.2: Social Commerce constructs
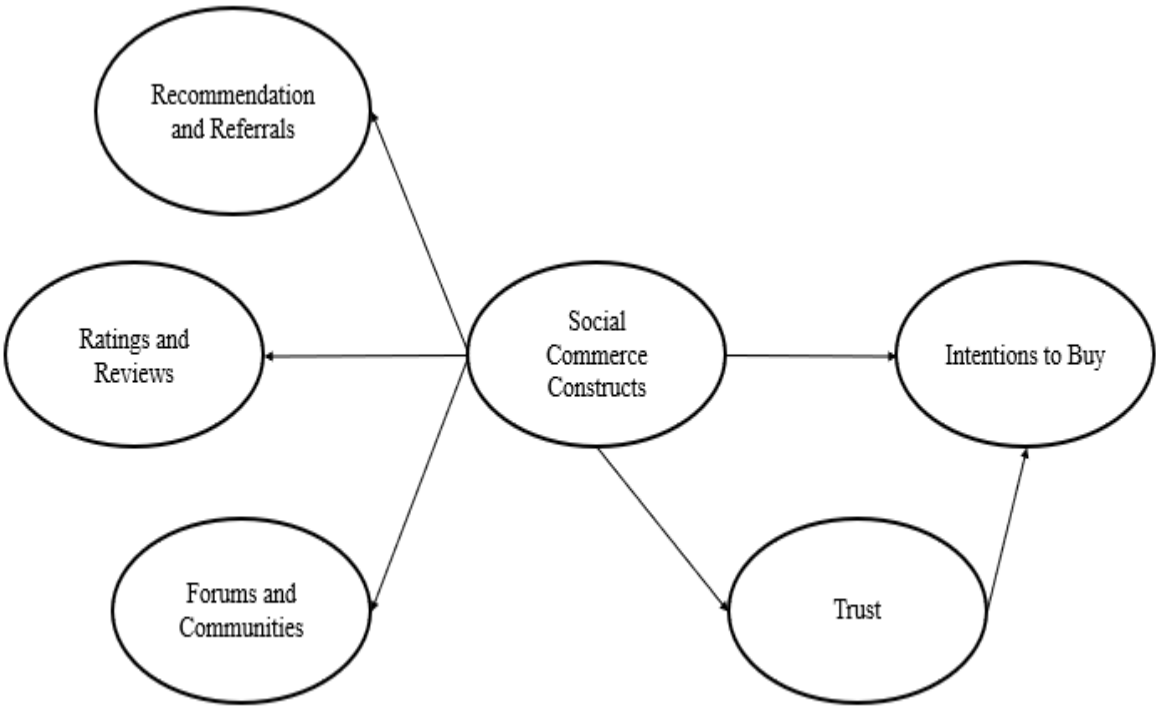
(Hajli, 2015)

2.3.3.1 Recommendations and Referrals

Recommendations and Referrals are essential components of SCC that perform a crucial role in social commerce acceptance. Buyers must rely on other folk's recommendations due to their inability to feel or touch the products by physically visiting the site or place where the product exists. The lack of physical access to stores and products was a

challenge in online shopping, where potential buyers hesitated to rely on the information from the seller side in e-commerce. Recommendations and referrals removed this barrier to deciding to purchase a specific product. The research explored that people now feel comfortable purchasing and relying on the recommendation available socially by the previous purchasers (Sheikh et al., 2017). It can be considered a significant milestone in promoting social commerce.

2.3.3.2 Reviews and Ratings

Reviews and ratings are also the dimensions of social commerce constructs widely used on social networking sites for social communication. These constructs provide a place to customers who have experienced a purchase previously, and they leave their reviews by showing their satisfaction level with the used product. People can post these reviews and be available on SNSs (Chang & Chen, 2014). People can rate the products in the form of several stars, 1 to 5, based on their experience (Gan & Wang, 2017; Hajli, 2015). In purpose, looking the comprehensive information about a product, these ratings and reviews can be most helpful. This exchange of information environment provides help to the potential buyers in finalizing their purchase decision.

2.3.3.3 Forums and Communities

People's participation in forums and communities may enhance their satisfaction with purchasing decisions. Active participation in these SCC has also enhanced their familiarity with the product. These constructs are essential to building customers' trust in a company or product. Therefore, in the existing scenario, companies are making strategies by aligning with consumers' intentions to win customers' trust.

2.4 User Trust

In social commerce and e-commerce studies, trust is an economic notion of good faith and readiness to partake in a sale. According to Lee et al. (2016), people trust products and vendors with whom they have already had a successful transaction or were recommended by friends and family. However, other dynamics of social commerce increase the likelihood of trust (Lee et al., 2016). The establishment of trust relies heavily on the formation of predictions about the intentions and behaviors of a client (Doney and Cannon, 1997), thus justifying the need to study as many variables as possible to form such predictions. Trust is also considered a challenge that is not easily attained by businesses and organizations using social commerce – once they gain consumers' trust, success is guaranteed (Beyari, Abareshi, 2018).

According to the systematic review by (Friedrich et al., 2015), trust increases purchasing intention toward social commerce. There is reason to believe that social commerce organizations must work hard to gain consumers' trust. Trust is vital for achieving sales goals and guarantees client loyalty (Beyari, Abareshi, 2018). Trust shapes a consumer's PI (Hajli et al., 2013). A study on the variables that affect Saudi buyers' decisions to buy from Internet merchants (Alghamdi et al., 2011) found that people avoid online shopping because they do not trust the retailer. The emergence of social commerce and Web 2.0's ascent has aided in boosting trust and lowering risk related to online purchasing (Hajli et al., 2013). A contradicting result was determined by (Bai et al., 2015), who found that participating students trusted e-commerce more than social commerce due to privacy concerns. With advancements in technology, social commerce activities have become more popular in Korea. For example, several money-related issues have been reported by

users of s commerce, such as missing items or the wrong items being delivered, thus threatening the credibility of such online shopping methods (Kim and Park, 2013). Specifically, customers' trust has evolved into a crucial component of social commerce, compelling these companies to work extra hard to gain their clients' trust (Kim and Park, 2013). Given the weight placed on trust in business exchange relationships, it is vital to understand how trust affects particular aspects of customer behavior (Doney and Cannon, 1997). A study by (Akman and Mishra, 2017) found that purchasing intention of the consumer using social commerce is positively influenced by perceived trust. In Saudi Arabia, user trust in business-to-consumer e-commerce has increased client trust (Eid and Al-Anazi, 2008).

Furthermore, recent research findings by (Sensuse et al., 2017) demonstrated that social presence and trust encourage user purchasing intention. A study that reviewed the major factors contributing to the success of social commerce found that trust had substantial effects on purchasing intentions and positive word of mouth (WOM; (Kim & Park 2013). Empirical research by Kim & Park (2013) also urged for more research on the antecedents that can boost social commerce trust. A study on Saudi millennials revealed that trust and purchase intention are positively linked, which is associated with purchasing behavior (Razi et al., 2021).

A study found that security, privacy, and quality WOM, all trust-related factors, affect user engagement in social commerce (Gupta and Sharma, 2022). According to (Beldad, De Jong and Steehouder, 2018), more research should be done regarding the factors that can aid in increasing trust in this relatively new form of commerce and the possible effects of trust-related variables. Beldad, De Jong & Steehouder (2018) strongly believe that knowing which variables determine the increase of trust in online sites would significantly

benefit corporations and business owners when designing webpages for online dealings to generate high levels of trust. In a study by (Alalwan et al., 2018, 2019), the adoption of mobile Internet was influenced by trust among Saudi consumers. Another study also found a considerable impact of trust on users' intentions (Alalwan et al., 2018). Furthermore, studying the nature and precursors of user trust in social commerce would offer more understanding of the social commerce experience and its outcomes (AlArfaj, Solaiman and Marshall, 2019).

Trust is a complex construct that can be conceptualized in several ways. This is a central aspect in all kinds of economic transactions and is often considered the base of e-commerce. Prior research (Alalwan et al., 2019; Alamsyah & Febriani, 2020; Ansari & Malik, 2017; Dabbous et al., 2020; Holten et al., 2016; Lu et al., 2016; Makmor et al., 2018; Saleem et al., 2020; Seppälä et al., 2012) asserted it as a phenomenon with central aspect in functionality and institutional structures. In social commerce, it could be built through social interaction between customers and customers and customers with sellers. To build customer trust, companies are investing considerable budgets in social networking sites and using different social commerce constructs (Alalwan et al., 2019; Huang & Benyoucef, 2013; Zhou et al., 2013). Before the development of Web 2.0 and SNSs, including the introduction of social commerce in 2005, trust was a neglected area of study in e-commerce. Later, trust building becomes more critical by transferring powers from sellers to customers due to the introduction of social commerce. This study argues that trust influences purchase intention in parallel with other SCC.

Numerous scholars considered buyers are the main drivers in the social commerce arena. In continuation of this understanding, realizing the factors influencing customers'

willingness to purchase was also pertinent. By reviewing the literature (Alalwan et al., 2019; Alamsyah & Febriani, 2020; Chow, 2019; Makmor et al., 2018; Seppälä et al., 2012), it is concluded that trust is a primary factor in the success of companies in social commerce. Some companies have succeeded in building the trust of customers, and they are doing great business. On the other hand, the sellers might fail to build trust by effectively using social networking sites. Trust is also essential in maintaining and building long-term relationships between sellers and customers.

2.5 Purchase Intention

The level of willingness of a consumer to buy a product or service through social commerce platforms is known as purchase intention. Prior studies used PI as the critical variable to investigate social commerce, especially in its intervening role in the association between trust and the use of social commerce. The purchase intention takes place before the purchase stage and measures the motivational attitude that affects consumer behavior to show the willingness to buy any product or service online (Armitage and Conner, 2010). Lăzăroiu et al. (2020) conducted an extensive literature review on several factors. In the previous research, purchase intention has been used as predicting variable to predict consumers' trust.

Moreover, previous studies have been conducted considering the purchase intention as the outcome variable and considering other predictor and mediating variables. For instance, Lăzăroiu et al. (2020) researched the role of e-commerce in online buying intent, considering the mediating factor of trust, word of mouth, and social interactions. However, there is limited research on the influence of UTUAT2 factors, SCC, and user trust on purchase intention and the use of social commerce. There are a couple of factors that can

influence the purchasing intention of a buyer. Numerous studies have highlighted purchase intention as a driving force behind the purchase decision. The author considered that purchase intention represents three statements, consideration of buying and willingness to buy by the customer, future buying intention, and re-purchase intention. The present research investigates the elements that can generate PI. The author proposed and further hypothesized the unified theory of acceptance and use of technology extended model (UTAUT2) and social commerce constructs as the antecedents of social commerce use behavior in Saudi Arabia.

2.6 The Use of Social Commerce

Social commerce refers to using SNSs such as Instagram and Facebook to sell products and services directly to consumers. Integrating social network sites (SNS) as commercial platforms, social commerce is a growingly popular type of electronic commerce. The common social commerce platforms are Instagram, Pinterest, Facebook, Poshmark, and Shopee (Liang and Turban, 2011). Social media users are increasing rapidly. According to Clement (2019), on average, worldwide social media users spend at least 145 minutes per day. This shows the potential growth in the social commerce industry. An article published by Liang and Turban (2021) recently highlighted the essential aspects of social commerce. She point-out the social media's check-out capabilities, additional plugins, and application facilities, and Chat Box to provide live support to customers. These features increase the use of social commerce, especially in Saudi Arabia. Previous research identified several factors influencing social commerce (Alqahtani, Alroobaea and Mayhew, 2014; Friedrich, 2015; Miadinovic and Xiang, 2016). For example, the

consumer's Purchase intention and trust are critical factors that influence the success of social commerce (Dabbous, Barakat and Merhej Sayegh, 2020). Several studies on social commerce have been undertaken to identify and analyze the direct effects of purchase intention on the use of social commerce (Hajli et al., 2013; Kim and Kim, 2018). Social commerce is the primary variable of interest in previous research, and it was investigated to understand the antecedents better contributing to Saudi customers' usage of social commerce (Sheikh et al., 2017).

2.7 Gender as a Moderator

A set of characteristics or traits that are driven by an individual's social environment is referred to as gender. Thong et al. (2006) suggested that gender has been primarily investigated as individual difference factors in social science research. Individuals' propensity to make decisions might be influenced by their gender, which shapes their perceptual perspectives and actions. Venkatesh & Morris (2000) suggested that gender is critical in deciding technology adoption among men and women. Studies have also explored men's and women's differences in use patterns, usage styles, and behavior toward specific technological applications. Venkatesh et al. (2003) stated that gender moderates the effects of PE, EE, SI, and FC on PI. Previous literature supports that males are more inclined than women to accept new technologies, especially those connected to online shopping since they tend to be more complex, unclear, risky, and unreliable (Venkatesh et al., 2003). Additionally, it has much support in the literature that different genders are driven to behave in distinct ways by various causes. Men are driven by activities that require achievement, but women are motivated by the perceived comfort of use (Venkatesh & Morris, 2000). Accordingly, empirical research on various information

technologies has demonstrated that males are more motivated by the utility of technology (Gefen & Straub, 1997; Venkatesh & Morris, 2000). Furthermore, it has been reported that women are more conscious of SI than men, and SI significantly influences women's intent more than men, particularly older women. According to Venkatesh and Morris (2000), a customer's gender significantly impacts the choice to use technology for online shopping.

2.8 Age as a moderator

Due to social media's rising popularity, researchers have been enticed to investigate what makes people use it (Han and Kim, 2017). However, few studies examine the impact of customer age on social media use for online shopping. People of all ages (up to 70 years old) now use their phones to shop online (Smith and Anderson, 2018). However, with a growing number of mature customers, there are differences in the attitudes and behaviors toward certain factors in social commerce (Han and Kim, 2017).

Figure 2.3: Age demographic of social media users in the United States, showing age demographic and social media use (Smith & Anderson 2018)
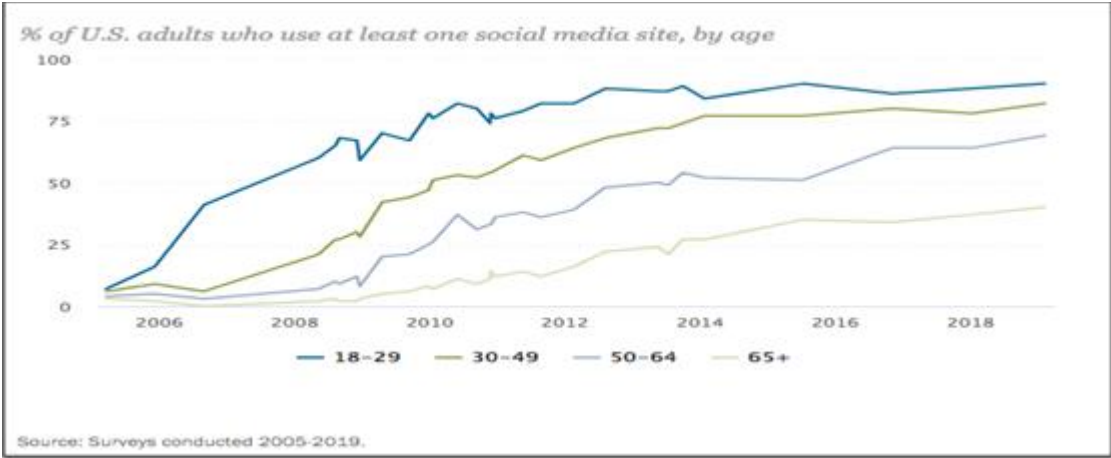
The acceptance of social commerce differs across different age groups; the ease of use is vital for the adult/older demographic. However, social influence strongly affects the younger demographic (Hopp and Barker, 2016). These results warrant further research into the elements influencing the acceptance of social commerce in different age demographics. Previous research tested the moderating role of customer age on satisfaction and trust in social commerce (Jin and Ryu, 2019). In their sample, the median age of respondents was 21.9 years, ranging from 18 to 30. A limitation of Jin & Ryu (2019) study was that undergraduate students were the majority. Participants of a study conducted by (Bai, Yao and Dou, 2015) were aged from 16 to 57 years old; however, the participants were 27 years old on average, and 78.59% were 19 to 35 years old.

In a study on the use of social commerce by entrepreneurs, 80% of the study population was between 26 and 35 years old (Hashim, Nor and Janor, 2016). A study regarding users' responses to celebrity ads on social media only focused on undergraduate students (Han and Kim, 2017). A limitation of the study conducted by (Beyari, Abareshi and Elferjani, 2017) was that it involved only university students; thus, the results could not be generalized to all consumers. A recent study addressing consumers' attitudes toward the Facebook pages of brands showed that people aged 30 and above use social commerce (Blazquez et al., 2019). They found that different age groups had different reasons for following a brand's Facebook page. Though the results were interesting in that people over 40 were more drawn to banner ads, there has not been an investigation into the impact of advertisements by influencers on this demographic (Blazquez et al., 2019). Although the study by (Blazquez et al., 2019) was enlightening with all of the different age group comparisons, more variables regarding trust and social commerce need to be investigated in this overlooked part of the online population—those who widely use social media for

communications, participation, and community interaction. However, minimal theoretical evidence has been available on what motivates populations of different age demographics to use social media. A study by (Kim, Lee, and Contractor, 2019) concentrated on the theory of the diffusion of innovations to investigate the motives of elders using social media commerce features for tourism purposes. The main motives were site attachment and authentic experience when using social media platforms for purchasing tourism offers. These factors are unique to social media as opposed to e-commerce websites. According to Kim, Lee & Contractor (2019), elderly consumers (over 50 years of age) are referred to as the 'mature market, elderly market.' Seniors continue to dominate social media commerce features about tourism due to their stable financial situation and desire to travel (Kim, Lee & Contractor 2019). Due to communication and IT advancements as well as the demographic change brought on by aging demographics, it is wise to consider expanding the horizon and gaining insight into the behaviors of larger parts of the population.

Innovation diffusion theory (IDT) is a theoretical framework used in the study by Kim, Lee & Contractor (2019) to explain why people accept technologies for online shopping. The components of IDT are simplicity, benefit, and compatibility (Kim, Lee & Contractor 2019), which are essential for seniors to feel attached to social media websites. Therefore, corporations targeting these groups with social commerce pages should integrate features that are easy to use, offer a clear benefit to the consumer, and are compatible with the user's page content. Companies should also build explanatory pages, socially cooperative, and likely to increase seniors' site attachment (Kim, Lee & Contractor, 2019). Although this study focused on purchasing tourism packages through social media and was concerned with much older demographics (age starting from 50 and up), it is interesting

to get an outlook on the behaviors and predictions of such a demographic as it can be applied to the population in this study to gain a more inclusive comprehension of all social commerce users.

Interestingly, research on the adoption and use of e-commerce that was done in Saudi Arabia reported that 38% of the population were participants aged 30 and over, with the oldest respondents being over 60 years old (Makki and Chang, 2015). A study by (Amatulli, Guido and Nataraajan, 2015) investigated the shopping habits of the mature generation (65 and older), and they concluded that a strong relationship with a brand is linked to the purchase of luxury items. A study by (Sheikh et al., 2017, 2019) that was recently conducted on Saudi consumers and the desire to utilize social commerce stated that one of their limitations was limiting the surveys to male students, which hinders the actual representation of social commerce consumers. The age of consumers' is also an essential variable in social commerce studies. The age factor has been used as an independent variable in several studies to determine the purchase intention and use of social commerce.

Moreover, the age factor is also assessed as moderating factor in the relationship among various social commerce variables. The age factor has been used in several contexts in social commerce. For example, Wang and Herrando (2019) evaluated how age moderated the linkages between trust, users' information, and corporate information. Instead of keeping age is a continuous variable or categorical variable (age groups), they conducted a study on three different cohorts of consumers: generation X, Y, and Z, to determine how these three generations develop trust through social commerce sites information. According to (Makki and Chang, 2015), merchants should consider age, culture, and gender differences when developing an social commerce business plan, as there is no

unanimous strategy that works for all types of consumers in social commerce. Similar conclusions were drawn in another study conducted in the Saudi context (Razi *et al.*, 2019).

Furthermore, Wang Herrando (2019) assessed the several factors that influence social commerce acceptance and assessed the moderating role of age, gender, and social commerce experience. His study concluded seven significant moderator effects, including the consumer's age. Wang Herrando (2019) proposed that further exploratory studies can be conducted to validate their findings of age as a moderator on UTUAT2 and the social commerce relationship. These findings concluded that customer demographics might moderate the influence on purchase intention. However, no similar study has been done in Saudi Arabia to evaluate the moderating role of customer age on the relationships between different UTUAT2 factors and the usage of social commerce. In this study, the age variable has been used as a categorical variable. Three age categories were formulated: 18-35, 36-50, and above 50 years to assess its moderating effect on Saudi consumers' PI.

2.9 Experience as a moderator

According to Venkatesh et al. (2003), experience refers to an opportunity to use a target technology. Use experience is a user's perceptions and responses resulting from the use and/or anticipated use of a system, product, or service. It refers to the overall experience of a person using a product such as a website or computer application, especially in terms of how easy or pleasing it is to use. It is often operationalized as the length of time from an individual's initial use of technology. Experience is an important personal quality that is acknowledged in UTAUT2 as a moderating variable. Earlier research revealed a range of findings about customer experience as a moderator. The findings of several studies

show that experience modifies the link between most factors on PI and use behavior towards technology acceptance. Experience also moderates the relationship of habit, FC, and PI as a direct determinant of user behavior. Venkatesh and Morris (2000) reported that customer gender, age, and experience have moderating effects on PI. Furthermore, Venkatesh et al. (2012) state that the interaction between UTUAT2 factors, customer gender, age, and experience further modifies the relationship between FC and PI. Therefore, possessing an excellent social commerce experience for online shopping increases comfort, assurance, and comprehension of the technology, increasing the likelihood of using social commerce for online shopping.

2.10 Related social commerce studies in the local context

According to a recent survey, by 2023, it is expected that e-commerce revenues will reach $6.5 trillion. In 2020, there were 2.05 billion online buyers, and mobile devices accounted for almost half (49.2%) of all e-commerce purchases. 80% of these online shoppers and 63% of mobile buyers think new technological developments enhance their online shopping experience. In Saudi Arabia, the daily time spent on social media in 2021 has been recorded:3.06 hours among individuals aged between 16-64 years, and they made 30.7% of searches related to business (Statistics, 2021). The sudden rise in online shopping trends in Saudi Arabia created more opportunities for social commerce and market-related research to benefit from it. Many studies in the local context, including Saudi Arabia, have been found related to e-commerce, but very few specifically address the social commerce trend. A brief account of the related studies is presented in this section.

A recent study examined whether Saudi consumers' intentions and use of social commerce varied depending on their demographic traits. Four demographic factors—age, gender,

education, and customers' use of social media—were examined in this study (Abed and Ezzi, 2020). The study results concluded that the behavioral intention of Saudi customers towards social commerce differs according to their age groups, gender, and experience with social media. However, their educational level does not affect their social commerce adoption (Abed and Ezzi, 2020).

Wardhani and Subriadi (2020) conducted a recent systematic literature review and identified 30 studies that stressed the need to conduct more studies in the area. They mapped the potential directions for further research, including the trust of consumers in e-commerce (Wardhani and Subriadi, 2020). According to another study conducted in 2019, the interest in social commerce among academics and researchers, particularly in the Saudi setting, has been low, creating room for further research on the subject, especially regarding social trust and value generation (Alalwan et al., 2019). Alalwan, et al (2019) examined causal relationships between SCC, user trust, and PI and reported that SCC and trust are positively associated with PI. This study mainly provides the foundation for selecting SCC and user trust as antecedents of PI. In 2019 in Pakistan, a similar study was carried out on social support, relationship quality, and the effects of SCCs on social commerce intentions (Sheikh et al., 2019). The results of this investigation demonstrate that SCCs positively influenced customers' intentions to engage in social commerce through the creation of virtual groups, ratings and reviews, recommendations, and referrals (Sheikh et al., 2019).

A recent investigation by (AlArfaj and Solaiman, 2019) also study Saudi Arabian buyers' perspective on the trust mechanism and how social networks might improve trust.

Similarly, two other studies were carried out to accomplish the goals: the first involved co-design workshops to generate and refine design recommendations, and the second involved a critique of the mock-up in assessing the recommendations. The result of this paper validated the previous studies by identifying critical features that are designed for social commerce. They emphasized family and friend-related aspects, such as friends' ratings and reviews, which are vital for boosting trust on social commerce platforms (AlArfaj and Solaiman, 2021). Zhou et al. (2013) reported that human-social interaction substantially impacts the flow experience, which in turn impacts buying customer inclinations through social commerce. In Egypt, a similar study was carried out on the effects of cognition (a rational element) and experience on customers' trust and risk in a social electronic commerce setting (Abou-Elgheit, 2019). The study concluded that consumers' trust is significantly shaped by the reputation and integrity of electronic providers, while third-party seals and security measures help consumers perceive less risk (Abou-Elgheit, 2019). Similar findings were reported in another study (Al-Tit, Omri and Hadj, 2020).

With a focus on social commerce, where many studies address the related constructs, consumer intention, and perception, building high-quality customer connections is a significant concern. A recent study primarily examined the impact of social commerce trust on client PI (Nadeem et al., 2020). However, the connection between social presence, loyalty, and commitment was not supported by Nadeem et al. (2020). This again creates enough room to explore the matter further. Another paper focuses explicitly on reviewing the variables that affect the success of social e-commerce in Saudi Arabia. The study concluded that some critical factors are information quality, information or knowledge sharing, trust, relationship quality, and network (Nadeem et al., 2020). The study of

literature also pointed out a few significant findings that small and medium enterprises (SMEs) need to consider while using social commerce. One study concludes that social connectedness and trust are some of the determining factors influencing social commerce (Sutomo, Rahman and Romli, 2021).

Another important study in the Saudi Arabian context elucidates the practice of purchasing and selling goods and services over social commerce websites like Instagram and WhatsApp (AlArfaj, Solaiman and Marshall, 2019). It describes how the ease of use and diversity of products and services offered by these platforms contribute to the growing popularity of social commerce (AlArfaj, Solaiman and Marshall, 2019). To comprehend how social networks might be better built to satisfy the demands of users, they described recent development in Saudi Arabia. Additionally, they offer suggestions for promoting business initiatives on social media platforms to enhance user acceptability and experience (AlArfaj, Solaiman, and Marshall, 2019). Another similar study examined the use of social commerce in Saudi Arabia and highlighted some main issues that consumers are facing are need to be addressed (Andijani and Kang, 2022).

2.11 Chapter Summary

This chapter summarized earlier research on social commerce and consumer PI. First, the background of social commerce and related theories were elaborated. The notion of social commerce was then discussed in the Saudi context. The last part of the chapter narrated the findings and conclusions derived from studies carried out in a local setting. Chapter 3 discusses the dynamics that influence consumers' intentions and the elements that provide

the basis for the conceptual framework—the review of all the studies mentioned above identified a few significant gaps that needed to be addressed.

CHAPTER 3: THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

3.1 Study Overview

Nowadays, shopping has become a social activity where shoppers tend to be inspired by the shopping experiences of others. The recent advancements in social media communication technologies (e.g., web 2.0), innovations in e-commerce, and widespread use of social networking sites entirely changed the shopping arena (Hajli, 2015). The main reasons behind online shopping trends are the shifting trend towards social media and forums such as social networking sites (SNSs). Online shopping is a fast-growing phenomenon that invites offline shoppers to innovate the mode and switch from offline to online. Many previous researchers (Dabbous et al., 2020; Gan & Wang, 2017; Hajli, 2015; Huang & Benyoucef, 2013; Lu et al., 2016) studied various models to envisage the acceptance of online shopping in different contexts over the globe. Today, online shopping has become the most popular way to buy goods and services because it is supported by new technology with many features available that provide better results in less time with minimum effort compared to offline shopping. The online shopping trends turn manufacturers' intention to use online retailing as a competitive advantage over their competitors. In the current scenario, many features are available on social media, helping potential customers participate and avail the opportunities to collect the desired information, resulting in a more reliable, trustworthy, and socially acceptable online shopping environment. Customers can acquire the information socially by using different SNSs like Facebook, Twitter, and LinkedIn.

Web 2.0 changed the entire environment of SNSs, from the social side to online purchasing. In consequence, now, shopping is a social experience. Through these SNSs,

customers feel more connected with their social circle and have more access to socially available knowledge and experiences to support their PI. SNSs provide a better understanding to buyers by providing more information to facilitate their purchase decisions. Nexus, with described rapid switching of traditional shopping styles into e-commerce trends and growing development of social media, including Web 2.0, it is notable that there is a vast potential in this sector. This technological development has provided opportunities to shift e-commerce from offline to online shopping trends.

E-commerce was the first development in changing shopping trends from offline to online. Where the major weakness was lacking the presence of social and human elements that hindered the growth of e-commerce, we can say that e-commerce was a platform that connects the customer with the system without any human presence. Mainly, it was where no guidance, suggestions, or previous experiences were available while making a purchase decision (Lu et al., 2016). On the contrary, online shopping mode is a platform where several social constructs are available to guide the buyer. Discussing the innumerable services and innovations in online shopping adoption as a developmental form of e-commerce, a couple of factors like usage, traditions, risk, value, and image, and the demographics like income level, age and gender are also important factors. E-commerce is an evolution followed by the innovation of Web 2.0 technologies to increase customer activeness to gain superior economic values. The new technology innovation is known as social commerce (social commerce). From the author's point of view, there is a conceptual mix-up in the definition of social commerce in the literature, which causes different identifications of social commerce sites. According to (Zhang & Benyoucef, 2016), previous research acknowledged two primary forms of social commerce : (1) social media

sites and (2) conventional e-commerce sites. The rapid and widespread use of SNSs attracted businesses to capture this opportunity, advertise themselves, and offer their services on social media (Han & Kim 2017). The differentiation between e-commerce and social commerce is the availability of lists of other users on social commerce who share the same connections, so they can assess/compare, evaluate those all, and browse the connections of other users as well (Taylor et al., 2011).

Social commerce is a recent trend adopted since late 2004 and earlier 2005. This was the time when several social networking sites were introduced to connect people socially. These SNSs packed the world into a globe, and now the world has become a global village. Social commerce is a platform where sellers connect through SNSs and act as individuals instead of firms. A previous study (Dabbous et al., 2020) highlighted the importance of social media by estimating that it can contribute 900 billion to 1.3 trillion dollars to the global economy, and every third of consumers is spending by using social commerce. Yahoo first used the term 'social commerce ' in 2005, although it has been used for four decades. The purpose of social commerce was to provide an online place for people to share their purchase experiences, advise each other and find quality goods by taking advantage of an informative world of social information. The early applications of social commerce can be assessed in the late 1990s when Amazon introduced the review and rating system for their customers. The purpose behind introducing this review and rating system was to provide a forum for customers to share their purchase experiences. So, social commerce is often viewed as the notion of electronic WOM applied to e-commerce in the early time. In the modern age, SNSs have witnessed rapid growth on a global level. These allow people to connect on time to exchange information easily. Research shows

that after using these SNSs, people comparatively more relied on the information available on SNSs than the same provided by sellers. Online social networks allow buyers who have similar buying intentions to interact, communicate and share knowledge as desired or requested by other users. Previous literature review indicates that the number of active users on SNSs will reach 3.02 billion per month in 2021, which will be one-third of the world population. These figures highlight potential buyers' rapid use of SNSs and the importance of these SNSs for companies to stay competitive in the technological arena. It is also pertinent to realize that companies who want to become market leaders and product leaders plan strategies to incorporate the current needs of online buyers. Companies' use of social commerce is still in the nascent area, and only the few companies updated them as per the needs of modern buyers.

Despite the considerable technological developments and practices by firms to align their strategies with buyers' intentions, introducing the SCC, companies are still trying to determine the factors which motivate buyers to switch toward social commerce. Research has illuminated the drivers behind social commerce over offline shopping. However, the factors that can still increase potential buyers' purchase intention by using social commerce remain unclear. Similarly, the influence of customers' demographic variables on social commerce, particularly Saudi Arabia is still unexplored. Consisting on contributing to social commerce literature and exploring this technological development's unattended areas, previous research determined the elements that strengthen buying intention. However, it also is required to explore the use of social commerce in the Saudi context within different age groups by considering the less studied area of research.

Moreover, this study also investigates whether customers' gender and experience influence purchase intention through social commerce platforms.

Saudi Arabia is witnessing tremendous improvements in mobile technology and its use in daily life. This advancement is due to the government's initiative to develop pioneering applications to simplify many aspects of citizens' everyday lives as part of Saudi Arabia's Vision 2030 framework (Alalwan et al., 2019; Baabdullah et al., 2019). In one study, the focus group participants of both genders established that culture is a crucial determinant of technology acceptance in Saudi Arabia and affects user attitudes and intentions (Alqahtani et al., 2014). This research concentrates on the adoption of social commerce in Saudi Arabia. Moreover, the author has also noticed a distinct lack of representation of different age demographic populations in the research regarding social commerce. This study would substantially benefit businesses or individuals using social commerce as their platform and help them better understand their target audience across various age groups. This research examines the factors that can affect people's trust and intention in using social commerce and whether customer gender, age, and experience have any moderating effect on PI and use behavior towards social commerce. In the present research, the variables were chosen based on the predominant UTAUT2 theory, SCC, and user trust. A review of the literature regarding these relationships suggests a lack of research on social commerce adoption in Saudi Arabia. To bridge these gaps, this study used the UTUAT2 framework, SCC, and user trust as antecedents of PI and the use of social commerce in Saudi Arabia.

3.2 Theoretical development

In accomplishing the study objectives and investigating the factors influencing purchase intention, the researcher discussed several theories that may help explain the abovementioned relationship. It is pertinent to mention here that the acceptance or rejection of any technology is based on the suitability of the technology in a specific environment. Therefore, the decision to study detailed background is a prominent topic in information and communication technologies and social sciences research. Researchers have used competing models to support, substantiate, and validate their hypotheses through various models to explore and predict factors contributing to the acceptance of the technology. Some studies pondered on individuals, while others concentrated on organizational settings. Few researchers worked on technology's behavioral and social aspects and proposed their models accordingly. In this context, many theories were developed to explain the determinants and mechanisms for discovering the adoption of social commerce. This chapter accommodates all such models that have often been used so far. The main models can be listed as (i) Theory of Reasoned Action, (ii) Technology Acceptance Model, (iii) Theory of planned behavior, (iv) Motivational Model (MM), (v) Combined TAM and TPB (C-TAM-TPB), (vi) Model for PC utilization (MPCU), (vii) Innovation diffusion theory (IDT), (viii) Social cognitive theory (SCT), (ix) UTAUT and the extended UTAUT2. The study throws light on some of the dominant models to know the background towards reaching and understanding the proposed model.

3.3 Theories of Social Commerce

Many acceptance and adoption theories can be applied in social commerce studies. These theories include Social Presence Theory (SPT), Social Identity Theory (SIT), Theory of

Reasoned Action (TRA), Technology Acceptance Model (TAM), UTAUT, and UTAUT2.

Table 3.1 presents a brief account of all these social commerce theories.

Table 3. 1: Summary of theories used in Social commerce studies

Theory	Definition	Application	References
(SPT) Social Presence Theory	Explains the effect of social features in online social commerce and its influence on purchasing decisions.	Used to show social presence and interactions, which increase trust and purchase intention.	(Lu, Fan and Zhou, 2016)
(SIT) Social Identity Theory	How a person perceives oneself and identifies with people from a certain social group. Moreover, how emotionally significant are these group members to him/her. Social identification influences a person's attachment to celebrities and their decision to purchase products.	Used to study the influence of social media celebrity influencers	(Jin and Ryu, 2019)
(TRA) Theory of Reasoned Action	The attitudes of consumers are related to their intentions and their behaviors. Moreover, attitude is affected by belief.	Used to study Trust as a significant factor contributing to the user's behaviour.	(Fishbein et al., 1980) (Teo and Liu, 2007) (McKnight, Choudhury, and Kacmar, 2002) (Kim and Park, 2013) (Molinillo, Liébana-Cabanillas and Anaya-Sánchez, 2018) (Pavlou and Gefen, 2004) (Youngkeun Choi, 2018)
(TAM) Technology Acceptance Model	Explains the users' trust in embracing IT systems building on the TRA theory but adding the factors: perceived usefulness of the system and the	Perceived usefulness of the system and the apparent ease of using the system leads to trusting the IT system in question.	(Friedrich, 2015) (Shin, 2013) (Molinillo, Liébana-Cabanillas and Anaya-Sánchez, 2018) (Abed, 2016)

	apparent ease of using the system.		(Al-Somali, Gholami and Clegg, 2009)
(UTAUT) Unified Theory of Acceptance and Use of Technology	This theory is based on the merging of eight IT acceptance models. UTAUT has four basic paradigms: 'performance expectancy, effort expectancy, social influence, and facilitating conditions that influence behavioral intention to use a technology and usage behaviors.	It is used to study user acceptance and the use of modern technology and technological applications.	(Abed, Dwivedi and Williams, 2015) (Lian and Yen, 2014) (Yahia, Al-Neama and Kerbache, 2018) (Yahia, Al-Neama and Kerbache, 2018) (Sheikh et al., 2019) (Abed, 2018) (Alkhunaizan and Love, 2014)

3.3.1 Theory of Reasoned Action (TRA)

Drawing on social psychology, the theory of reasoned action was proposed by Thomas Sarver (1983). From the motivational point of view, the TRA elucidates the voluntary behavior of individuals. The theory postulates that PI is affected by two variables, i.e., conduct towards behavior and the subjective norms of individuals. According to the theory, a person first makes an intention, and then the intention leads to actual (usage) behavior. The theory also explains subjective norm (SN) as an antecedent of PI. Subjective Norms are "perceived societal pressure to do or refrain from acting." Both the theories, reasoned action theory and the theory of planned behavior, believe that human behavior is affected by attitude and PI. Corbitt et al. (2003) substantiated that attitude mediates between individuals' beliefs and intentions, where the belief directly affects an individual's intention. The key concept in the reasoned action theory is the human PI towards acceptance of any system. TRA focuses on the three dimensions, i.e., the attitude

of humans, subjective norms, and the specific intentions that shape the behavior. Referring to the social psychology research (Yousafzai et al., 2010a) compared the TRA, TPB, and theory of acceptance model, concluding that the adoption of the TRA has emerged as one of the parsimonious and powerful ways to investigate the antecedents of technology. TRA is a long-dominated model that has been intensively used or extended for understanding the PI of various groups/users and their usage behavior, among others (Shih & Fang, 2006).

Figure 3.1: Theory of Reasoned Action
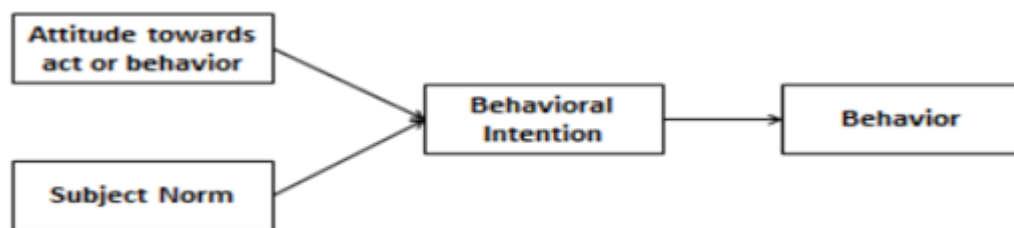
(Ajzen, 1967)

3.3.2 Technology Acceptance Model (TAM)

An extension of TRA, the technology acceptance model (TAM), was developed by (Davis, 1989) to identify the factors considered fundamental while accepting any technology. TAM contains two additional determinants of technology acceptance: perceived usefulness (PU) and perceived ease of use (PEU). Perceived usefulness refers to the "state of the individual feels that a certain system would better his or her job performance within the specific context" (Davis, 1989). If a customer conceives that technology usage enhances his/her work, he/she will rush to accept it. Perceived ease of use was explained as "how much a person thinks a certain system would function without any effort within a specific environment or in an organizational context." Users expect the technology to be

effort-free when they intend to adopt it. The TAM has been applied, validated, and extended in many studies along with some new constructs or models (Khan et al., 2018). TAM is considered a robust and parsimonious model for predicting users' behaviors (Yousafzai et al., 2010). Ample research applied the TAM framework to examine the acceptance of financial transactions through online/mobile banking. The extended TAM was used by (Abdullah et al., 2016), who investigated the security perception of customers using online banking in Malaysia's urban cities. They found that the model rightly outlines the security concerns of the customers. Gan and wang (2017) used the framework of TAM to analyze the causalities of their proposed model to understand the determinant of users' intentions toward mobile banking. They found strong support (72.2% variance) for their model and concluded that self-efficiency was the primary antecedent of PEO, which affect PI through PU. Yousafzai et al. (2010) used three technology acceptance models, i.e., TRA, TAM, and TPB, to ascertain Internet banking intentions. They concluded that TAM explains customer behavior better than TRA and TPB. Singh (2019) applied the TAM and perceived risk to identify the antecedents of customers' acceptance of online banking in India. They found a negative influence on the risk perceived in using online banking adoption. They concluded that young male participants with highly qualified employees with considerable monthly earnings are the primary users of online banking. The original TAM was extended with social influence and normative beliefs of others, and this extended version is called TAM2. Keeping in view the consistent limitation of the TAM in terms of its explanatory power, (Venkatesh & Davis, 2000) extended it known as TAM2. The additional factors are related to social media influence and cognitive human instrumental process. The social media influence factors like SN, the voluntariness of use, previous experience, and reputation. The cognitive instrumental factors were introduced

as output quality, job relevance, result demonstrability and PEOU. The root of TAM2 was, too, derived out of the previous TRA framework and was mainly used to ascertain the customers' usage behavior.

Figure 3.2: Technology Acceptance Model

(Davis, 1989)
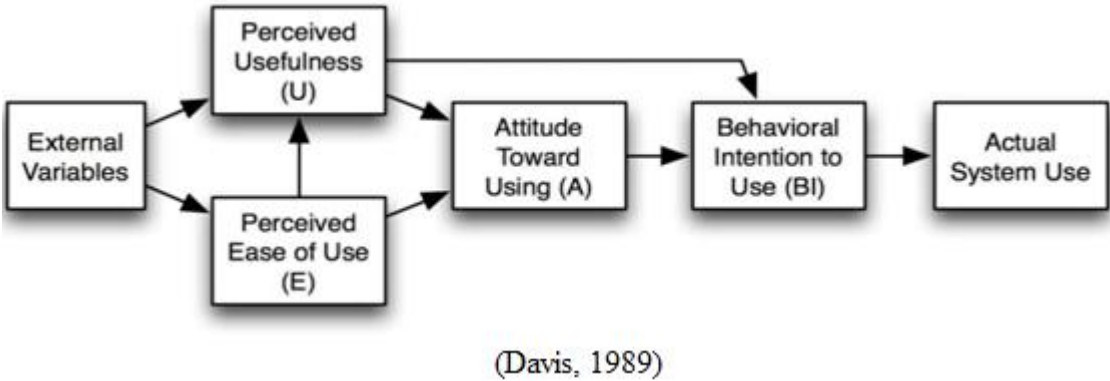
3.3.3   Theory of Planned Behavior (TPB)

The TPB connects users' beliefs with their behavior. It was developed by (Thomas Sarver, 1983) to extend and enhance the predictive power of TRA. Subject norm (SN), perceived behavioral control (PBC), and attitude toward behavior (ATB) were all explained by TPB are the main drivers of human behavioral intentions and usage. This construct is different from SN because SN is the perceived pressure on normative expectations from the outside people, and that has an intent on behavioral intentions. Hardeman et al. (2002) found 24 studies that used and evaluated this theory. Besides the primary constructs of TPB, they included safety and privacy, as well as self-efficacy, technology support, and government support as the antecedents of behavioral intentions. Therefore, the TPB has a widespread application, extension, and replication in many contexts within the IS (Hardeman et al., 2002; Shih & Fang, 2006; Yousafzai et al., 2010).

Figure 3.3: Theory of Planned Behavior
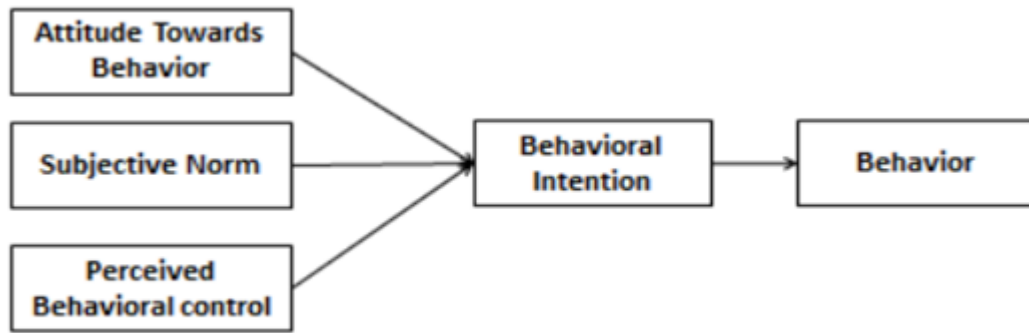
(Ajzen, 1991)

3.3.4 Innovation Diffusion Theory (IDT)

IDT theory was introduced by (Rogers, 1976), and it is a highly used theory in IS and social science research. Rogers discussed five IDT attributes that determine any innovation's diffusion rate. (i) Relative advantage (perception that the innovation is superior to others) (ii) compatibility (that the innovation is in line with the needs and experience of the adopters (iii) complexity (perception of difficulty with the usage) (iv) Observability (the observation of the attributes of the innovation) (v) Tribality (perception of experiencing easiness in using the innovation). The theory explains how quickly new technology is embraced and spread throughout society. The IDT postulated the preadoption process of innovation by indicating the involvement of customers' decisions in accepting or rejecting the innovation. The second stage is the customers' decision to continue or discontinue the use. The researcher classified the innovation process into five stages of knowledge innovation: (A) The individual or group's awareness about the existence of innovation. Knowledge includes being aware of the innovation, its usage, and understanding how it works. However, in IDT theory, Rogers emphasized the awareness aspect of innovation. (B) Persuasion stage: this stage forms attitude by indicating the positive aspects of innovation. At this stage, the customer gets psychological involvement

with the innovation and tries to get relevant/credible information from his/her community. (C) Decision stage (Acceptance or Rejection): this stage signifies the possible acceptance or rejection of the innovation. The individuals and groups can commit to accepting or rejecting the innovation at any stage during the decision process. (D) Implementation stage: the users operationalize the process and begin to use the innovation on a trial basis. This stag helps users lead to the permanent usage of the innovation. (E) Confirmation stage: the users finalize the usage of innovation and commit permanently. The positive response of users leads to reaching this stage. The users may shift to other innovations if they find more practical, accessible, and compatible innovations to their tasks and needs. The three attributes of innovation (relative advantage, complexity, and compatibility) have constantly been used by researchers to both the stages of innovation adoption in the IS literature. The construct of relative advantage portrays the consumer's view of how he/she takes the innovation advantageous for his/her tasks. The complexity factor reflects the meaning thought of in the simplicity of use in TAM, how the innovation makes the tasks easier and free of effort. The greater the ease of use, the greater the usage and acceptance of innovation in both stages (pre- and post-innovation). The third characteristic is compatibility which captures the degree of disruption and harmony an individual is experiencing with the innovation. Consumers hardly accept less compatible innovation. The third categorization introduced by Rogers (2003) was based on the attributes of innovators. In this perspective, they divided the innovators into five categories/groups, i.e., (i) Innovators (the system gate-keepers that innovate and undergo various uncertain conditions), (ii) Early adaptors (leaders in the adoption process), (iii) Early majority (earlier adopters of innovation than the average adopters), (iv) Late majority (later adopters of the innovation usually after the early adopters) and (v) Laggards (the last to

adopt the innovation because they are highly suspicious). López-Nicolás et al. (2008) concluded that the traditional antecedents of behavior could be successfully connected to diffusion-oriented variables (for example, social influence and perceived benefits). (Baabdullah et al., 2019) utilized the IDT framework to unveil the elements that can help design mobile services for online bank customers. They found that relative advantage, compatibility, and observability positively impact online banking adoption in Saudi Arabia, while tribality and complexity have no significant effect on the adoption. Kalaiarasi and Srividya (2013) examined online banking by applying IDT in the Indian context. They found that younger users adopt online banking when it suits their lifestyle and if the website is user-friendly. Moreover, the perception of risk was essential in determining online banking adoption. Many researchers used, validated, and extended IDT theory for technology acceptance in various contexts with different user groups (Baabdullah et al., 2019; Baptista & Oliveira, 2015; Gu et al., 2009; Kalaiarasi & Srividya, 2013; Shih & Fang, 2006).

3.3.5   Social Cognitive Theory (SCT)

A method used in psychology and sociology which shows how well any technology is accepted depends on the social observations within the context of social interactions. The theory suggests individual's behaviors are affected by personal experiences, other people's actions, and environmental circumstances (Bandura, 1985). The SCT is built around human agency," in which specific users are the key participants in their growth. Bandura (1985) discussed the IDT as social diffusion of innovation and differentiated it from SCT. The foundation of SCT was borrowed from social learning theory that asserted three basic principles, i.e., feedback that influence behavior; vicarious learning that leads to acting;

and identification where the model behavior is likely to be adopted (Bandura, 1986). The SCT has been grounded to have three types of factors that are environmental, personal, and behavioral (Bandura, 1985). The environmental setting influences individuals to complete their tasks successfully. Appropriate support and materials are needed to provide facilitating environment and thus improve an individual's self-efficacy. Personal factors include the ways to make individuals believe in their abilities. The behavioral aspects are related to the results of behavioral responses. In other words, the behavior leads to favorable results (Bandura, 1985). Bandura elaborated on the triadic relationship because people see their results through any of the three lenses.

Figure 3.4: Social Cognitive Theory

(Bandura, 1985)
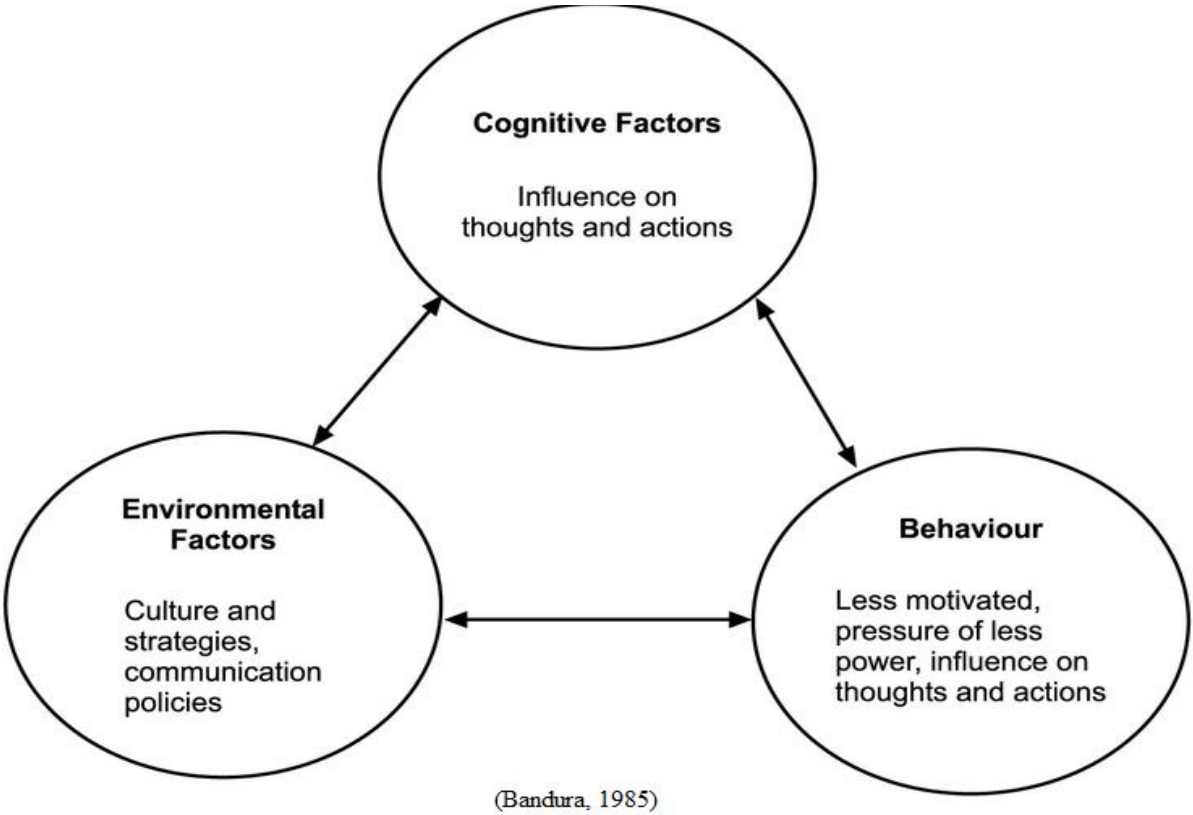
3.3.6 Motivation Model (MM)

The motivational model borrowed its essence from the theories used earlier in psychology research. Motivation reasons for individuals' action may be explained as "individuals intention toward behavior, or the extent to which an individual want to repeat a behavior" (Elliot, 2006). Bandura (1985) suggests that people's behavior depends on intrinsic and extrinsic motivation. The intrinsic motivation consists of the pleasurable moments and satisfaction with using the technology (Azeem & Ahmad, 2017). Similarly, extrinsic motivation is outside of the activity itself, for example, the monetary benefits, social status, etc. Motivation pushes users/individuals to get the desired goal or work or one's energy to accomplish specific goals (Elliot, 2006). Some authors suggested that the influence of perceived usefulness is far better than the perceived enjoyment on users' intentions. Venkatesh and Davis (2000) asserted that the impact of users' moods on technology acceptance aligns with the level of internal and external motivations. It was found that the users' mood is essential for internal motivation and not so significant for external motivation. Several studies used MM theory to ascertain the user's acceptance of any technology (Venkatesh & Davis, 2000).

Figure 3.5: Motivational Model

(Bandura, 1985)
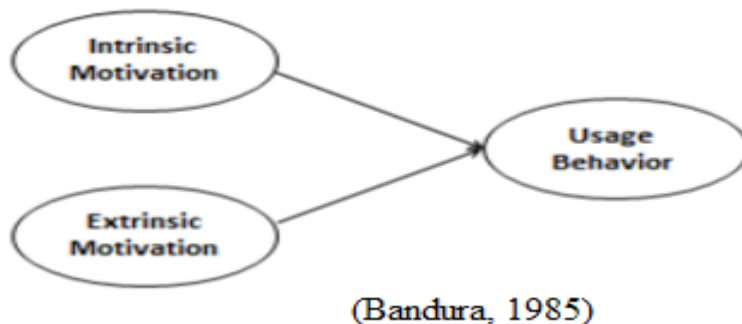
3.3.7 Combined TAM and TPB (C-TAM-TPB)

As mentioned earlier, the TAM has two primary constructs (PU and PEU). At the same time, the TPB uses ATB, SN, and PBC as its main predictors that are supposed to affect human behavioral intentions. Taylor and Todd (1995) identified that the TAM is weak in adding socially acceptable factors affecting behavioral intentions. In this regard, they integrated TAM and TPB, which emerged as combined TAM-TPB in the IS literature by applying it to the tendency to use IT among the students. They found that the C-TAM-TPB model is more predictive in explaining the results during the group analysis; the C-TAM-TPB model shows a good match with both old and new users (Gu et al., 2009). It evaluated the acceptance of technology (automotive telematics), Chang and Chen (2014) used and compared the TAM, TPB, and C-TAM-TPB models. They found that the effect of perceived EU, attitude, and PB control was significant in the acceptance of technology in Taiwan.

Figure 3.6: Combined TAM and TPB Model
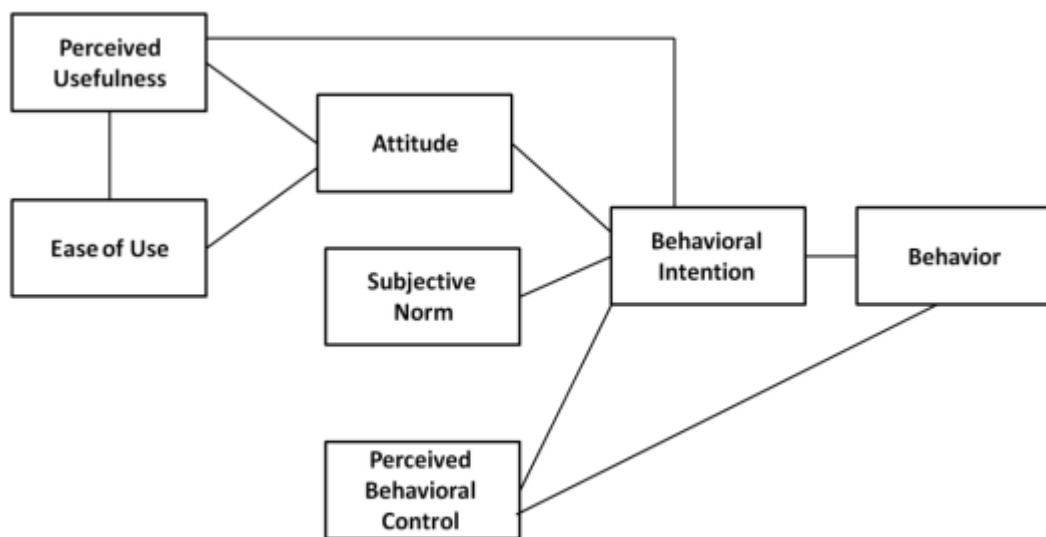
(Taylor and Todd, 1995)

3.3.8 Model of PC Utilization (M-PCU)

This model was concerned with unveiling the problems of personal computer (PC) utilization. The framework was established by Thompson, Higgins, and Howell (1991), keeping in view the predictions of earlier individual/human behavioral models (Thompson et al., 1991). The individual behavior model views that attitude, social norms, habit, and expected results determine behavior. The M-PCU refined the human behavior model and contextualized it in the context of PC utilization. Thompson et al. (1991) investigated individual usage behavior rather than their intentions. According to M-PCU, six factors affect individuals' accept any information system/technology. The six factors are (i) Job fit, (ii) long-term consequences, (iii) complexity, (iv) affect towards use, (v) social factors, and (vi) facilitating conditions. They found that social norms, barriers, job fit, and long-lasting results are acceptable for PC utilization in the industry. Although the results were not duly supported and proved, some researchers used and extended them. (Thompson et al., 1991) augmented the previous model with users' experience to adjust it to the experience dimension of PC users. In another study, the behavior of 60 knowledge workers was analyzed through the model of PC utilization in Saudi Arabia (Al-Khaldi & Wallace, 1999). It was also applied to explore the usage of the Internet/World Wide Web (WWW) in different contexts (Chang & Cheung, 2001; Cheung, Chang, & Lai, 2000).

3.3.9 Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh & Davis (2000) and Venkatesh et al. (2003) assessed the above eight models by introducing a unified view in the shape of UTAUT. They found various limitations in the prior models, leading them to present a unified technology acceptance view (Al-Qeisi et al., 2015). Some of the shortcomings of the previous models were identified as follows;

• The models were simple and based on individual orientation, so they were not so suitable for complex cases and organizational contexts.

• The participants were not widespread as most models were validated through student data.

• The measurement of time was general and was not specific to address the usage behavior; therefore, the respondents' reactions were retrospective even after the acceptance or rejection decisions.

• Number of studies was cross-sectional.

• The data were taken in a flexible environment, so it wasn't easy to generalize to the mandatory settings.

Several studies exist to address the users' acceptance of technology in recent years, especially after the introduction of information systems in organizations. ICT has contributed enormously to the development of individuals, nations, and organizations. Therefore, researchers alike are interested in delineating the variables that can improve technology usage and adoption. In this regard, it is necessary to focus on the factors that affect the user's beliefs, attitudes, acceptance, or resistance to technology (Baptista & Oliveira, 2015). UTAUT has four main constructs (i) Performance Expectancy (PE), (ii) Efforts Expectancy (EE), (iii) Social Influence (SI), and (iv) Facilitating Conditions (FC). It also introduces age, gender, experience (Exp), and voluntariness of use as a moderator between the explanatory variables and behavioral intentions. Performance expectancy was defined as the "beliefs of an individual regarding using a system related to his or her help to attain desired job performance" (Venkatesh et al., 2003). They elaborated that PE was

integrated, considering the five constructs of previous models, like TAM and TAM2, external motivation from the motivational model, job fitness from M-PCU, advantage from IDT, and desired outputs from SCT. The authors summarized PE as the potential predictor of behavioral intentions in voluntary and mandatory settings. EE was defined as "the extent to which a person believes that implementing a system will contribute to improving job performance" (Venkatesh et al., 2003). EE captured out of three previous models, i.e., perceived ease of use (PEU) from TAM/TAM2, complexity from M-PCU, and ease of use from IDT. The UTAUT explores the EE influence on the users' intentions over a sustained period, while the PEU construct is less influential whenever the users are engaged with the technology for a relatively long period. The theory uses social influence (SI) as the third variable that explains behavioral intentions. SI can be elaborated as the "perception of an individual regarding other useful ways related with system use they can enhance the performance" (Venkatesh et al., 2003). Venkatesh et al. (2003) introduced SI by considering the previous constructs, such as SN (TRA, TAM2, TPB, and C-TAM-TPB), from P-MCU and perception from the IDT, which led to the formation of SI in UTAUT. The essence of SI is the societal effects on individual users. The social groups, peers, friends, relatives, colleagues, co-workers, classmates, and others around the individual have a direct or indirect effect on the opinions and intentions of users. The fourth construct of UTAUT is the facilitating conditions (FC), which refers to "the extant believe by an individual regarding the support of existing facilities in his performance increase" (Venkatesh et al., 2003). The definition of FC was exemplified by capturing the previous three constructs, i.e., PBC from TPB and C-TAM-TPB, FC from MPCU, and compatibility from IDT. The theory presented why the FC affects both the BI and use behavior. The direct influence of FC on usage behavior is beyond that what is explained

through the BI. Being a very popular model in the IS research, the UTAUT has been extensively used by researchers in various contexts and technology users (Athapaththu & Kulathunga, 2018; Sharifkhani et al., 2016; Sheikh et al., 2019; Yousafzai et al., 2010). Gan & Wang (2017) delineated the UTAUT in the context of online stocking by using the personality traits (extraversion, conscientiousness, agreeableness, neuroticism, openness) as as an antecedent of the UTAUT main predictors (PE, EE, SI, FC). The study showed that its model accounts for 59% and 17% variance in BI and usage behavior, respectively. It was supported that perceived credibility, perceived convenience, and perceived costs positively impact Thai customers' behavioral intentions. They found that SI, FC, PE, and perceived credibility were the important factors determining customers' behavioral intentions, while gender moderates the relationship between PE and perceived financial costs on behavioral intention.

Figure 3.7: Unified Theory of Acceptance and Use of Technology
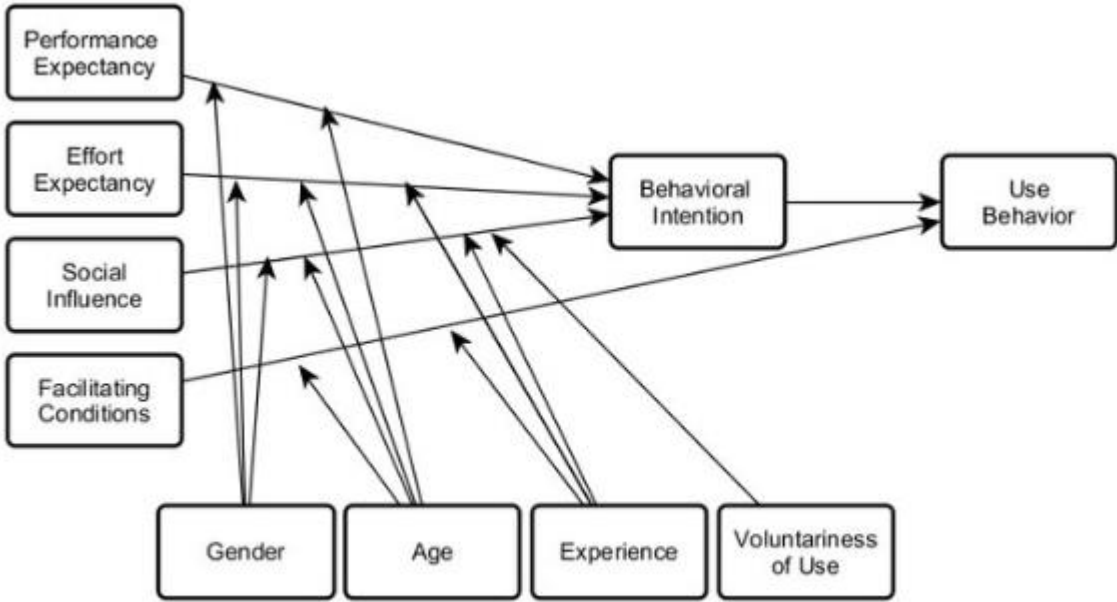
(Venkatesh et al., 2003)

3.5.10 Constructs of UTUAT and its origin

Table 3.2: UTUAT constructs

Constructs	Root Constructs	Previous Models	References
Performance Expectancy	PU Extrinsic Motivation Job Fit Relative advantage Outcome expectations	TAM MM MPCU IDT SCT	(Davis, 1989) (Davis et al., 1992) (Thompson et al., 1991) (Moore & Benbasat, 1991) (Compeau & Higgins, 1995)
Effort expectancy	Perceived ease of use Complexity Ease of use	TAM MPCU IDT	(Davis, 1989) Thompson et al., 1991) (Moore & Benbasat, 1991)
Social influence	Subjective norm Social factors Image	TRA, TPB, C-TAM-TPB MPCU IDT	(Icek Ajzen, 1991; Fishbein, 1975; Taylor & Todd, 1995) Thompson et al., 1991) (Moore & Benbasat, 1991)
Facilitating conditions	PBC Facilitating conditions Compatibility	PB, C-TAM-TPB MPCU IDT	(Icek Ajzen, 1991; Taylor & Todd, 1995) Thompson et al., 1991) (Moore & Benbasat, 1991)

3.3.11   Unified Theory Extended Model (UTAUT2)

UTAUT2 literature on technology acceptance has progressed by proposing and applying different models. After integrating the previous eight models, the UTAUT was born, and then it has been extensively used in evaluating customers' acceptance of technology for the last thirteen years (2003 till date). It is worth mentioning that previous models were primarily concerned with the organizational perspective, which is related to the individual customer's context. Literature extended the under-discussion model and validated it in Hong Kong by adding three new constructs. This new extended model was called UTAUT2. The extended model outlined additional factors to the existing four constructs of UTAUT (Venkatesh et al., 2003). These new variables are price value (PV), hedonic motivation (HM), and habit (HT). Price value (PV) was added as the UTAUT was very specific to the individual customers' context. Unlike organizations, the customers must pay the price. In the context of IS, the concept of hedonic motivation is extremely important because customers expect pleasure and fun beyond the usage of technology for their efforts. Likewise, the habit was included to indicate the consumers' continuous usage of technology and addiction to use behavior (Venkatesh et al., 2012). The UTAUT2 framework is more thorough and has not so far been analyzed in the context of developing and non-Western cultures. Several researchers used UTAUT2 to examine the users' behavioral intentions. A study by (Khan et al., 2017) used the UTAUT2 model in the context of online banking and examined the antecedents of adoption of online banking in Pakistan. Baptista and Oliveira (2015) ascertained the adoption of online systems in Saudi Arabia by employing UTAUT2. They found that the trend toward the use of technology is influenced by EE, PE, and users' trust as well as risk perception. Morosan and DeFranco (2016) used the UTAUT2 model to investigate customer usage behavior toward mobile

payment. Khan et al. (2017) ascertained the determinant of online shopping acceptance in a developing country by applying the UTAUT2. UTUAT2 is a widely used model in technology adoption and usage, and various studies in the Saudi context have employed it. For example, Alshehri et al. (2019) determine the factors affecting the adoption of e-learning systems by students in Saudi Arabia using UTAUT2, Alzahrani, and Alalwan, (2021) examine the role of trust and perceived risk in the adoption of e-government services in Saudi Arabia using UTUAT2, Alharthi, and Alshehri, (2020) employed UTUAT2 to investigate the determinants of mobile banking adoption in Saudi Arabia, Alqahtani and Al-Gahtani, (2020) used UTUAT2 to examine factors affecting the adoption of mobile banking in Saudi Arabia and Alalwan et al. (2019) also apply UTUAT2 to investigate the role of perceived value in the adoption of mobile banking services in Saudi Arabia. The studies above examine the acceptance of e-government, e-learning, and mobile banking in Saudi Arabia using the UTUAT2 framework. However, the present research examines the influence of UTUAT2 factors, SCC, and user trust on Saudi customers' purchase intentions and use behavior in using social media platforms for online shopping. Moreover, this research investigates the moderating role of customer individual differences (gender, age and use experience) on purchase intention and use behavior.

Studying UTAUT2 in the Saudi setting can be beneficial for various reasons. First, Saudi Arabia is a fast-rising country investing significantly in technology and innovation. Understanding how Saudi consumers perceive and embrace new technologies may help businesses and governments modify their plans to match the local population's needs and expectations. Second, the Saudi context is distinct in a number of respects, including cultural, social, and economic considerations that may impact social commerce

acceptance. For instance, cultural norms and religious beliefs may influence how Saudis view and use technology. By examining UTAUT2 in Saudi, the researcher may identify these contextual elements and investigate their influence on social commerce acceptance.

3.4   Hypotheses Development

By reviewing the literature related to online shopping, online trading, online banking, and intention of technology usage in Saudi Arabia, factors as reviewed above found a positive influence, and these, all were important factors leading to intention to use social commerce technologies (Abed, Dwivedi and Williams, 2015). According to leading theories in IT acceptance, such as the UTAUT2 and SCC, individuals' attitudes and beliefs drive the user's intention. Since reading testimonials, reviews, and comments enriched with quality information on a particular topic is a way to build an opinion and a belief, the researcher hypothesized that UTUAT2, SCC, and user trust positively influence PI and use behavior.

3.4.1   Performance expectancy and purchase intention

The common goal of the users of any system is to get better performance in their personal life. Every user tries to get his/her performance improved and effective. In this respect, the UTAUT framework posits the acceptance of an innovative system that can accomplish this objective quickly. Venkatesh et al. (2003) established the concept of PE as "the state of an individual acceptance of new technology with believes that the acceptance of technology will help to improve his or her job performance." Previous research reported that PE is the primary predictor of a person's behavioral intentions in both mandated and voluntary situations (Andijani et al., 2022; Sheikh et al., 2017). Numerous studies have confirmed that PE has a positive effect on users' behavioral intentions toward the use of social commerce (Alalwan et al., 2019; Ali et al., 2020; Athapaththu & Kulathunga, 2018;

Chow, 2019; Li, 2019; Liang & Turban, 2011; Makmor et al., 2018; Sheikh et al., 2017, 2019; Zhang & Benyoucef, 2016; Zhou et al., 2013). In one of the more recent studies in the context of a developing country, (Sheikh et al., 2019) noticed that PE had a positive relationship with online shoppers' behavioral intentions. From the customers' viewpoint, they confirmed that online shopping through social commerce depends on performance expectancy. The study uses PE as the antecedent of customers' behavioral intentions in a voluntary setting. It is more likely that customers will adopt social commerce if their performance is getting better with the use of the online system. The performance improvement is observed through customers' beliefs about using the online mechanism for long-term transactions and financial management. For instance, when customers perceive online shopping as a platform that is simple to use, offers a diverse range of products, has a smooth payment process, and can meet a customer's expectations in terms of product quality, availability, delivery times, and overall user experience that an e-commerce website can provide a satisfying shopping experience, therefore, enhance customer purchase intentions. Consisting in the same vein and getting support for the notion, we proposed that the PE may influence the purchase intention of a customer to use social commerce for online shopping.

H1: *PE is positively related to PI.*

3.4.2 Effort expectancy and purchase intention

Effort expectancy is another potential factor of UTAUT that may be the possible influencer of behavioral intention and can stimulate a customer's intentions toward online purchases. The UTUAT framework theorizes effort expectancy to be the driver of behavioral intention. Venkatesh et al. (2003) defined EE as "the perception of an

individual regarding the ease of use of a system." EE connotes the users' expectations that technology will be effortless for their work. The UTAUT and UTAUT2 frameworks (Venkatesh et al., 2012) considered and validated that EE can be a potential influencer of behavioral intention. Other studies reported the same outcomes. The notion is that using technology will improve, manage, and minimize individual consumers' efforts when using social commerce for online shopping (Gu et al., 2009; Saprikis, 2017; Zehir et al., 2012). In the present research, the researcher anticipated that the EE would help increase customers' purchase intentions interested in social commerce. The researcher argues that when customers easily search for desired products, compare prices, and finish the checkout procedure, they are more likely to make online purchases. This can be accomplished by creating an intuitive and user-friendly interface, decreasing the number of steps in the checkout process, giving different payment methods, and delivering quick and dependable shipments. It is further proposed that the effect of EE will be more for the younger women with early years of experience. To investigate the factors that can influence customers' PI to use social commerce in different age groups in Saudi Arabia, the researcher proposed that the effort expectancy has a positive effect on the purchase intention of the customers and motivate them to use the technology for online shopping: -

H2: *EE is positively related to PI.*

3.4.3 Social influence (SI) and purchase intention

A question was raised in the author's mind related to sociability and the influence of social environment on an individual's behavioral intention. Reviewing the literature (Baptista & Oliveira, 2015; Morosan & DeFranco, 2016; Venkatesh et al., 2003, 2003, 2012), it was observed that the SI is another construct of UTAUT that might be a driving force for

individuals' behavioral intention. Venkatesh et al. (2003) argued that the level of a person's consideration and relevance of the social environment is their social influence on other human's beliefs regarding a product because these beliefs may also influence the behavioral intention of a customer that is going to decide his shifting from offline to online shopping. The UTAUT and UTAUT2 model validated SI as an essential predictor of behavioral intentions (Venkatesh et al., 2003; Venkatesh et al., 2012). The people within one group might influence the individual to accept or reject the system. The opinions of coworkers, friends, classmates, superiors, relatives, coworkers, members of the educated class, and others impact technology acceptance (like media). Numerous studies reported a positive connection between SI and PI (Ali et al., 2020; Saprikis, 2017.; Wang & Wang, 2012). Some studies (Braimah, 2015; Makmor et al., 2018) confirmed that the association between SI and buying intentions was non-significant, and this may be because of how people's sociocultural backgrounds affect them (Mortimer et al., 2015). This research anticipated that it is more likely that the beliefs of online shoppers might be influenced by society's beliefs that, in turn, influence customers' intentions to use social commerce for online shopping. Therefore, the researcher posits that:

H3: *SI is positively related to PI.*

3.4.4   Facilitating conditions (FC) and purchase intention

Facilitating conditions can be more helpful for an individual to increase his performance. Drawing on the UTAUT theory of technology acceptance, it is well established that, like other constructs of UTAUT, facilitating conditions can also influence a customer's behavioral intention and can be considered a potential driver of behavioral intention while adopting social commerce for online shopping. Users of any system must have certain

facilities and infrastructure to engage with the system effectively and complete their tasks, referred to as facilitating conditions (Venkatesh et al., 2003; Khan et al., 2017; Sheikh et al., 2017). Venkatesh et al. (2003) clarified that FC refers to the "believes of an employee or an individual regarding support that can be acquired from an organization's existing infrastructure in support of using a new system or in acceptance of a new technology." FC provides the necessary infrastructure and assistance to users of any system to utilize it successfully. The researcher argues that websites and online shopping applications that are simple to use and provide clear, succinct product information assist customers in making informed decisions to make online purchases. A well-designed website with simple navigation and clear instructions may help shoppers identify goods, add them to their shopping cart, and finish their transactions. Moreover, the availability of numerous payment methods, such as e-wallets, credit/debit cards, online banking, and secure payment gateways, may boost user trust in the website and encourage them to purchase. Therefore, based on the above arguments, the researcher proposes that the FC will impact customers' PI for online shopping through social commerce. Thus, it is hypothesized:

H4a: *FC is positively related to PI.*

In continuation of hypothesis development, it also proposed that the facilitating conditions may also influence the use behavior of customers toward social commerce (Eneizan et al., 2019). It is proposed that when conditions are facilitating to an individual, then these conditions can also affect customer's use behavior towards social commerce. The researcher argues that FC improves the customer's online buying experience and can lead to higher usage behavior. For example, a user-friendly design makes it ease for customers to navigate the website or app, locate desirable products, and complete transactions. This

can boost client loyalty and stimulate repeat purchases, enhancing customer use behavior towards online shopping.

Furthermore, online shopping websites or apps that provide reliable and fast customer service may assist in resolving difficulties quickly and increasing consumer satisfaction. This also encourages users to use such shopping websites or apps repeatedly. Studies such as (Venkatesh et al., 2003; Khan et al., 2017; Khan et al., 2019) reported that FC has a positive effect on the use behavior of customers. Based on the preceding arguments, the researcher proposed the following hypothesis:

H4b: *FC is positively related to use behavior.*

3.4.5 Hedonic motivation and purchase intention

A feeling of pleasure can also influence an individual's behavioral intention toward using technology for online purchasing. The hedonic motivation was defined by Venkatesh et al. (2012) as "the pleasant feelings received by the use of a technology." In the present study, hedonic motivation is also proposed as the antecedent of behavioral intention. Prior studies reported that HM positively influences PI (Hardeman et al., 2002, 2002; Venkatesh et al., 2003, 2012; Venkatesh & Davis, 2000; Khan et al., 2017). Brown and Venkatesh (2005) showed the HM as a predictor of PI, and then it was validated and incorporated into the UTAUT2 model. In some earlier studies (Davis et al., 1992; Elliot, 2006), it was argued that the individual's pleasure has an effect on his/her willingness to accept the desired way. The HM described how customers choose technology to carry out their tasks, but later it was ascertained that consumers like entertainment beyond completing their tasks. The UTUAT2 theory cautioned IS designers to create a system that contains fun,

entertainment, and joy. HM appeal to the aesthetics and attitudes of persons to use any system. This research believes that it is more likely to motivate customers in Saudi Arabia to use social commerce for shopping if the technology and usage of Web 2.0 through SNSs and other social media provide them with some entertainment besides the shopping. The researcher proposed that the HM can be received while using the SNSs and exchanging the information and experiences in a social environment through social commerce constructs. This research also asserted that HM could be a possible predictor of PI which in turn influence the usage behavior of social commerce . Therefore, it is posited:

H5: *HM is positively related to PI.*

3.4.6   Price value and purchase intention

PV is consumers' cognitive trade-off between the technology applications' ostensible advantages and their associated costs. While studying the literature related to behavioral intentions in Saudi Arabia, it is realized that the PV can also be reviewed and studied by considering it as a study gap and an effective contribution to the social commerce literature. This construct was considered to be very relevant in the context of individual user settings. PV refers to "individuals' cognitive trade-off between perceived cost and benefits of any technology" (Dodds, Monroe, & Grewal, 1991; Venkatesh et al., 2012). From the buyer's point of view, PV is an essential component that affects the worth of a product or service. Customers want to get the best value for their money and compare prices across different products before purchasing. PV is extremely crucial when it comes to products or services that are deemed needed. These might include essential food, healthcare, and transportation.

Customers seek economic choices that provide good value for money in such instances. PV is positive when the alleged advantages of utilizing the system outweigh the price of the service. The cost factor influences consumers' decisions in a big way. Research shows that perceived price considerably impacts users' (travelers) intentions (Khan et al., 2017). Previous studies reported a positive relationship between PV and purchase intention (Khan et al., 2017; Andijani and Kang, 2022). Because of the above arguments, the researcher concluded that PV is a crucial element in different cultures. While contributing to Saudi culture and investigating the factors that can generate purchase intention among social commerce users, it is hypothesized that PV can positively influence the purchase intention toward usage behavior of an online shopper because it is critical to understand the relevance of PV in order to price the products or services competitively in order to attract and keep consumers; therefore, it is posited that:

H6: *PV is positively related to PI.*

3.4.7 Habit and purchase intention

Habit is a construct that is included in UTAUT2. Habit is different from other all kinds of influencers; they can influence the behavioral intention of an online shopper. Habit is the degree to which a person can motivate to perform a specific role or activity. The habit refers to "the degree to which learning causes people to do action automatically" (Limayem, Hirt, & Cheung, 2007). The habit was an automatic behavior, i.e., in terms of automaticity (Kim, Malhotra, & Narasimhan, 2005). Habit is distinguished from experience because the latter is a necessary but not sufficient condition for habit formation. Secondly, chronological time (experience) results in varying levels of habits (it does not produce the same degree of habit) among the users (Venkatesh et al., 2012). As a result,

several researchers considered past behavior (previous use) as a predictor of user technological adoption (Ajzen & Fishbein, 2005; Limayem et al., 2007). It has been hypothesized that habit affects both behavioral intentions and usage behavior. In IS research, it has been confirmed by various studies that habit has a positive effect on behavioral intentions (Sheikh et al., 2017; Ramírez-Correa et al., 2019; Andijani and Kang, 2022). The study assumes that habit will positively affect customers' PI towards using social commerce. Therefore, it is proposed that the following hypothesis:

H7: *Habit is positively related to PI.*

Additionally, with the above pursuant to the proposed research model of the present study and reviewing the literature, it is observed that habit is a predictor of use behavior of new technology (Limayem et al., 2007; Khan et al., 2017). By considering the particular consideration and filling the gap, it proposed that the habit can influence the use behavior of the customers toward social commerce. Suppose a customer is previously engaged in online shopping or using different social networking sites and social media groups for shopping transactions and getting attractive discounts through these SNSs. In that case, his shifting from online to offline will not be possible. Similarly, in the same vein, if a customer tends to like the offline shopping style as habitual, then his behavior toward social commerce will be pretty tricky compared with a less habitual person. Ajzen and Fishbein (2005) reported that past behaviors mostly determine present conduct. They further explained that a prior behavior repeated multiple times is more likely to be repeated in the present and future. It has been found that habit directly impacts use behavior (Baptista & Oliveira, 2015; Venkatesh et al., 2012). Hence, based on the above arguments,

we anticipate that habit has a positive influence on use behavior; therefore, it is proposed that:

H7b: *Habit is positively related to use behavior.*

3.4.8   Social Commerce Constructs and purchase intention

It has been argued that the SCC, like reviews and ratings, referrals and recommendations, forums, and communities, have changed the entire arena of social commerce (Sheikh et al., 2017). A platform that facilitates online communication and social interaction among buyers to acquire knowledgeful information and drive their purchase intention is known as SNSs, and the constructs available through these social networking sites empower the seller and buyer to find the requisite information is called SCC (Ali et al., 2020; Athapaththu & Kulathunga, 2018; Braimah, 2015; Dabbous et al., 2020, 2020; Joshi & Rahman, 2015; Lu et al., 2016). SCC are forums and communities, reviews and ratings, recommendations and referrals (Hajli, 2015). These constructs play a significant role in providing textual information and influencing the purchase intention and decisions of the potential buyers. Nowadays, businesses are participating in consumers' social conversations on platforms such as SNSs. Sellers are creating their official business pages because of the opportunities of well-known SNSs, including Twitter, LinkedIn, Facebook, and Instagram, to communities regarding customer reviews and recommendations. Companies like Amazon and eBay have now realized very well the importance and auxiliary value of the reviews and feedback dropped by previous customers as their -post-purchase experience. SCCs are the hands-on tools available on social media, SNSs, and the company's business websites (Li, 2019; Sheikh et al., 2019). It has been proved that the SCC directly influenced the PI of the buyer. Since 2005, after the introduction of Web

2.0 and SNSs, these SCCs have become an important tool they are using by sellers and customers. Both parties are taking benefit of these SCCs to make improvements in their performances. Comprehensive studies (Alalwan et al., 2019; Ali et al., 2020, 2020; Athapaththu & Kulathunga, 2018; Chow, 2019; Li, 2019; Liang & Turban, 2011; Makmor et al., 2018; Saprikis, n.d.; Sheikh et al., 2019; Zhang & Benyoucef, 2016; Zhou et al., 2013) have shed light on the effects of SCCs on behavioral intentions as well as on the use behavior of customers towards social commerce. Since the birth of SNSs, the use of SCCs has become an integral part of social commerce. These constructs directly affect customers' behavioral intention and use of behavior in adopting social commerce and shifting customers from offline shopping to online shopping. Like other countries, in Saudi Arabia, the use of these SCC in social commerce has rapidly increased, and customers now use these SCCs not only for social interactions but also for sharing information related to their previous purchases. Reviews and ratings are used for giving points in the shape of stars and providing such kinds of reviews regarding the use of a specific product that can be helpful for a social friend that is available socially on different SNSs and social media pages like Facebook, Twitter, Instagram, LinkedIn, etc. These are the construct that provides a place for customers who experienced a purchase previously to leave their reviews by showing their satisfaction level with the product. People can post these reviews on SNSs (Chang & Chen, 2014). People rated the products in form of several stars out of 5 based on their experience (Gan & Wang, 2017; Hajli, 2015). while new potential customers are looking for comprehensive product information, these ratings and reviews can be most helpful. This exchange of information environment provides help to the potential buyers in finalizing their purchase decision. Likewise, referrals and recommendations are also important elements of SCC used for product or service

recommendations to others. These SCC also influence the behavioral intention of social commerce users. Previous studies suggested that people now rely more on referrals and recommendations from friends and existing customers than the manufacturer's information regarding any specific product. Recommendations and referrals are a dimension of social commerce constructs that plays an important role in social commerce intentions. Buyers must rely on other folk's recommendations due to their inability to feel or touch the products by physically visiting the site or place where the product exists. The lack of physical access to stores and products was a challenge in an online shopping environment where potential buyers hesitated to rely on the information from the seller side in e-commerce. Recommendations and referrals removed this barrier to deciding to purchase a specific product. This research explored that people now feel comfortable purchasing and relying on the recommendation available socially by the previous purchasers. It can be considered a major milestone in promoting social commerce. Although fake referrals and recommendations, including fake use of all other social commerce constructs, are also a problem on SNSs being faced by the users and social commerce customers, the technology developers are trying to overcome these issues by inspecting them through e-vendors. Similarly, forums and communities are another very effective social commerce construct that online customers widely use to investigate their queries by reaching out to valid and authentic information on SNSs as provided by previous customers. People's participation in forums and communities may enhance their satisfaction level toward making a purchase decision. Active participation in these SCCs has also enhanced their familiarity with the product. These constructs are important in building customers' trust in a company or product. Therefore, in the existing scenario,

companies are making their strategies by aligning with consumers' intentions to win customers' trust.

By taking support from the outlined literature and keeping in view the importance of SCC in online shopping through SNSs, it can never be denied that SCC is an essential stakeholder of social commerce and can influence customers' attitudes toward social commerce. Consisting with the outlined notion and considering the proposed hypothesized research model for the present study; therefore, it is proposed that: -

H8: *SCC is positively related to PI.*

3.4.9 Social commerce constructs and user trust

Companies invest billions and trillions of dollars in winning customers' trust through different business strategies. Customers' retention and their re-purchase decision are also related to their trust in the product, seller, and company. Trust is a complex construct that is conceptualized in several ways. This is a central aspect in all kinds of economic transactions and is often considered the basis of e-commerce. Building trust is a very hardworking assignment for companies, and it requires enormous investment (Alalwan et al., 2019; Alamsyah & Febriani, 2020; Ansari & Malik, 2017; Dabbous et al., 2020; Holten et al., 2016; Lu et al., 2016; Makmor et al., 2018; Seppälä et al., 2012).

Social commerce, is built through social interaction in customers with customers and customers with sellers. To build customer trust, companies are investing considerable budgets in social networking sites (Alalwan et al., 2019; Huang & Benyoucef, 2013; Zhou et al., 2013). Before Web 2.0 and SNSs, customer trust was a neglected area of study in e-commerce. Later, trust building becomes more important than ever before by transferring

powers from sellers to customers due to the introduction of social commerce. In continuation of this understanding, realizing the factors influencing customers' willingness to purchase was also pertinent. By reviewing the literature (Alalwan et al., 2019; Alamsyah & Febriani, 2020; Chow, 2019; Makmor et al., 2018; Seppälä et al., 2012), it is pointed out that trust is a primary factor in the success of business using social commerce. Companies that have succeeded in building customer trust have done excellent business.

On the other hand, online businesses that fail in trust building are suffering from good sales. Trust is also essential in maintaining and building long-term relationships with customers and sellers. It is also crucial in ensuring the customers' loyalty to a product or a company. According to (Hajli, 2015), word of mouth on social commerce platforms has the greatest effect on customers. There are two forms of word of mouth, electronic word of mouth (eWOM) and social word of mouth (sWOM). The eWOM is a peer-to-peer material that impacts users' purchasing intentions and trusts. The distinction between eWOM and social commerce constructs is that eWOM is a specific consumer information exchange.

In contrast, social commerce constructs are larger characteristics of social media platforms that support eWOM. Social word of mouth (sWOM) is a type of electronic word of mouth that makes use of social media to give customers greater options for online interaction. The sWOM and SCCs vary in that sWOM is a sort of social influence among customers, whereas SCCs are elements of social media platforms that facilitate sWOM. User trust is closely related to the successful adoption of social commerce s online shopping. If the information available through SCCs is valid, authentic, knowledgeable, and informative, it might help build trust in potential customers for online shopping. For example, one type

of eWOM is online consumer reviews (Hajli, 2015) which is a dimension of SCCs, and the according to (Hajli et al., 2013), eWOM has the ability to eliminate product ambiguity and boost consumer trust, which in turn promotes purchasing intentions. Furthermore, SCCs also influence customer trust through social word of mouth, built through customer social interactions. SWOM is a significant predictor of customer trust, and SCCs can produce sWOM among potential buyers about new products and services, influencing consumer trust (Hajli and Sims, 2015). In the Saudi Arabian context, trust is viewed religiously, socially, and ethically important factor. Therefore, the people of Saudi Arabia give very much importance to trust. According to the cultural dimensions of the target population and to investigate the factors that can generate purchase intention among customers, the researcher proposed that the SCC is essential to enhance customer trust on e-commerce platforms. Companies can use SCC to convince customers by shifting them from offline to online shopping. These SCCs might also be very useful from the sellers' point of view in building and winning user trust, which helps to win customer loyalty and ensure the existing customers' re-purchase intention. It is; therefore, the researcher proposed that: -

H9: *SCC is positively related to user trust.*

According to Gefen and Straub (2000), trust is the assumption that the parties participating in a social interaction will act appropriately and ethically. They further explained that trust is built on an exchange party's competency, trustworthiness, dependability, and confidence in the other party's competence, honesty, and generosity (Zhao et al., 2019). Previous research suggested that for online transactions, trust is crucial (Jiang et al., 2019; Yeon et al., 2019) and forms the key reason why buyers avoid social commerce (Gefen and Straub

(2000). Consisting with the same vein, user trust is equally important in building a soft and positive image of social commerce because customers and sellers can use the trust to improve customer loyalty. On the other hand, user trust also influences the customer's behavioral intention. Considering the Saudi culture and religious values, it can be hypothesized that user trust can be the possible predictor of PI and use behavior towards social commerce. Therefore, the researcher posits the following hypothesis:

H10: *User trust is positively related to PI.*

3.4.10 Purchase intention and use behavior

Behavioral intentions serve as a connection between some exogenous factors and use behavior towards a particular technology. When a person consistently plans or chooses to implement, any system is called PI intention. Purchase intention is "the subjective likelihood that a person will participate in a particular conduct" (Venkatesh et al., 2003). TPB describes purchase intention as the "user's readiness to engage in a specific behavior" to make it more understandable (Ajzen, 1991). Purchase intention is a widely used factor employed by almost all the technology acceptance models and aims to indicate how people use the technology (Sezgin & Yıldırım, 2016). Purchase intention triggers technology users to go for actual usage; therefore, numerous studies have confirmed that purchase intention positively impacts use behavior (Venkatesh et al., 2003; Venkatesh et al., 2012). In this research, the researcher argues that purchase intention is the predictor of use behavior, and the customer's purchase decision depends on the level of his/her intention toward such a purchase. The previous research also found a positive relationship between PI and use behavior toward technology acceptance (Venkatesh et al., 2003; Venkatesh et

al., 2012; Sheikh et al., 2017, Andijani and Kang, 2022). As a result of the preceding arguments, the researcher proposed the following hypothesis: -

H11: *PI is positively related to use behavior.*

3.4.11 Moderating role of Gender

Gender has mainly been investigated as an individual difference variable (Zhou et al., 2013). It performs an essential role in deciding technology acceptance among men and women. Studies have also explored men's and women's differences in use patterns, usage styles, and behaviors toward specific technological applications. Pursuing the gender differences literature in technology acceptance and in purpose with analyzing the moderating role of gender in the use of social commerce, it is expected that customer gender might moderate the effects of UTUAT2 factors on PI. Previous studies (e.g., Chang et al., 2019; Extremera & Rey, 2016; Taylor et al., 2011; Zhou et al., 2013) have also investigated the moderating role of gender in different perspectives and recommended the gender as a moderating influencer. In reviewing the literature related to gender differences toward adoption of online shopping and their intention to use the traditional way of shopping, previous studies (Ali et al., 2020; Elliot, 2006; Tarhini et al., 2017) on HM have revealed different findings regarding the interaction among gender and hedonic motivation in the use of social commerce for online shopping. For instance, prior research on the internet has revealed that men preferred the internet for experiential or hedonic values and enjoyable social relations.

In contrast, women prefer to use the internet to capture practical or functional benefits like beauty tips, cooking recipes, dressing styles, educational assistance, course information, etc. In the present study, the researcher proposed that gender may moderate the effects of

FC, HM, PV, and habit on PI and use behavior. From the researcher's viewpoint, gender difference is one of the most fundamental differences while studying the antecedents of PI toward the use of social commerce, as men and women have different decision-making power. Research related to the use of technology has highlighted that the technology usage decisions of men and women vary as men's technology usage decisions are found to be more influential than women's (Dedeoglu, 2018). Lian and Yen (2014) reported that Men shop online more frequently than women, spending more money on non-essential items. Men are also more discerning buyers, with a greater concern for a product's attributes, a broader use of money-saving digital tools, and a preference for flexible payment options. Lian and Yen (2014) further reported that men have a more positive attitude toward online purchasing than women. According to Bucko et al. (2018), FC, HM, PV, and habits, such as ease of use, convenience, discovering new products and services, security, and trust, are all essential motivators for both men and women to purchase online. Thus, based on the above arguments, it is proposed that:

H12a: *Customer gender moderates the effects of FC on PI.*

H12b: *Customer gender moderates the effects of HM on PI.*

H12c: *Customer gender moderates the effects of PV on PI.*

H12d: *Customer gender moderates the effects of habit on PI.*

H12e: *Customer gender moderates the effects of habit on the use of social commerce.*

3.4.12 Moderating role of customer age

Moderators change the shape or intensity of the relationship between a predictor and a criterion factor (Loureiro and Roschk, 2014). This study contends that customer age

moderates the FC, HM, PV habit, and purchase intention relationship. The proposition of this moderating role is founded on the logic that throughout their lives, people are likely to value others, things, and services differently (Loureiro and Roschk, 2014). Similarly, customer age has been lauded as an essential demographic component in consumer research (Schirmer et al., 2018). Customers of varied ages are thus anticipated to demonstrate varying cognitive, psychological, and behavioral features toward specific products, which influence their subsequent consumer behavior (Schirmer et al., 2018). According to Thaichon et al. (2016), customer requirements and responses fluctuate over the life cycle. As a result, age can influence how customers perceive brand cues and respond to marketing messages, resulting in a moderating impact. For instance, elderly consumers are more influenced by heuristic or schema-based processing, resulting in a lower chance of seeking new information to make judgments than younger customers, who are more likely to be brand loyal and committed, resulting in distinct affective and behavioral reactions.

Several studies explored that customer age might influence technology adoption for online shopping (Chang et al., 2019; Andijani and Kang, 2022). Another study by (Taylor et al., 2011) reported that the anxiety level related to computer use is comparatively higher in older adults than younger ones. Ample studies have explored moderating effect of customer age on UTUAT2 factors and PI relationships. Venkatesh et al. (2012) reported the moderating effect of customer age on PE and purchase intention relationships. By taking support from previous studies and proceeding in the same vein of the proposed moderating effect, it has been proposed that customer age moderates the effects of FC, HM, PV, and habit on PI and use behavior. Several studies related to online systems usage

in Latvia and Russia have also incorporated the UTAUT2 constructs in their proposed models and used age as a moderator in a different research environment. A couple of studies (Baptista & Oliveira, 2015; Kalaiarasi & Srividya, 2013; Shih & Fang, 2006) have proposed the moderating effect of age on UTAUT2 factors and the purchase intention relationship. Based on the literature review, the researcher proposed that customer age moderates the effects of HM, PV, and habit on purchase intention intentions; as a result, the hypotheses listed below were offered: -

H13a: *Customer age moderates the effects of FC on PI.*

H13b: *Customer age moderates the effects of HM on PI.*

H13c: *Customer age moderates the effects of PV on PI.*

H13d: *Customer age moderates the effects of habit on PI.*

H13e: *Customer age moderates the effects of habit on the use of social commerce.*

3.4.13 Moderating role of experience

Customer experience is the customer's development through their buying journey and is derived from interactions between customers and specific offerings or offering-related (e.g., promotional) stimuli. Choi et al. (2013) asserted that customer experience involves the consumer's response to the service provider, which includes cognitive, affective, emotional, social, and physical responses. Choi et al. (2013) further suggested that customer satisfaction is linked to positive customer behavior. To examine the moderating effect of customer experience on the link between UTUAT2 variables and buying intent, this research examines the moderating effect of experience on PI. Previous studies (e.g., Ali et al., 2020; Corbitt et al., 2003; Li, 2019; Makmor et al., 2018; Saprikis, 2018.; Sheikh

et al., 2017) have explored the UTAUT2 model with different findings, but the moderating role of experience was mainly found unattended. They consist of checking the moderating role of experience. Previous studies suggested that more experienced individuals benefit more from favorable facilitating conditions, and these FCs can further affect their behavioral intention toward using technology for online shopping. Similarly, the experience can also moderate the effect of HM on the purchase intention relationship. For example, suppose a customer has no experience using hedonic motivation in making decisions. In that case, the HM cannot be too moderated by experience toward the purchase intention for the use of technology. In the same vein, for less inexperienced individuals, the relationship between UTAUT2 factors and purchase intention might become weak compared to an experienced individual (the framework of this study is presented in Figure 3.8). Keeping the view of the above-mentioned statements and getting support from previous studies, the hypotheses listed below have been proposed: -

H14a: *Experience moderates the effects of FC on PI.*

H14b: *Experience moderates the effects of HM on PI.*

H14c: *Experience moderates the effect of PV on PI.*

H14d: *Experience moderates the effect of habit on PI.*

H15: *Experience moderates the effect of PI on the use behavior of social commerce.*

Figure 3.8: Framework of this research
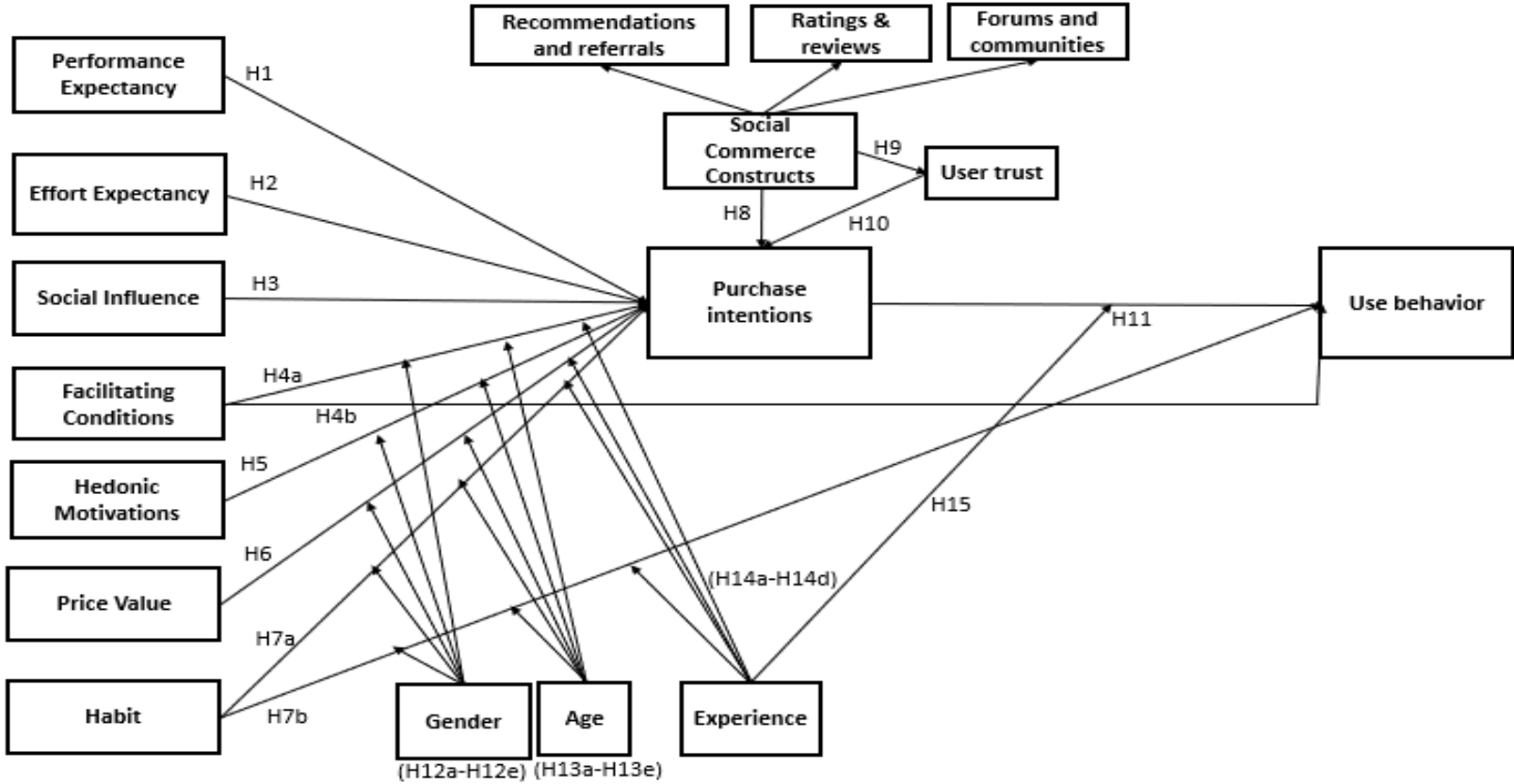
Table 3. 3: Alignment between research questions and hypotheses

Research question	Hypotheses	Literature review	Findings
RQ1	H1-H7, and H11	Venkatesh et al. (2003, 2012), (Khan et al. (2017) and (Andijani and Kang, 2022).	PE, FC, PV, and HT are positively related to PI. EE, SI, and HM are not significantly predicted PI. FC, HT, and PI are positively related to use behavior.
RQ2	H8, H9 & 10	Sheikh et al. (2018), (Andijani and Kang, 2022).	SCC are positively related to user trust and PI. User trust is positively predicted PI.
RQ3	H12a – H12e, H13a– H13e, and H14a–H14d & H15	Merhi et al. (2020), (Andijani and Kang, 2022).	Customer gender, age, and use experience moderate the effects of FC, HM, PV, and HT on customer PI.

3.6 Chapter Summary

This chapter gives an in-depth detail of past literature on the conceptual development of research constructs which pointed out the relationship between UTUAT2 factors, SCC user trust and with purchase intention, and use behavior of social commerce. The above-proposed research model highlights the influence of UTUAT2 factors, SCC, and user trust on purchase intention. The study argued that UTUAT2 factors (PE, EE, SI, FC, HM, PV, and habit) positively influence PI. Moreover, SCC (recommendations and referrals, ratings and reviews and forums, and communities) and user trust positively influenced PI, and PI positively related to the use behavior of social commerce. Furthermore, the study claimed that customers' gender, age, and experience would moderate the effects of FC, PV, HM, and habit on purchase intention.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter discusses conducting research effectively to answer the research questions and objectives. To answer the research questions (stated in Chapter 1), this chapter specifies the methodology and the approaches to explain the sample, the method of collecting data, and the data analysis. The methodology is usually based on how a researcher chooses the appropriate technique for data collection. The first section (4.1) explains the research philosophy (epistemological and ontological consideration) and clarifies why this research used a deductive approach. Section 4.2 focuses on the quantitative component of social science research and justifies selecting a quantitative method for this study. The third section (4.3) justifies the selection of the survey method. It further gives justification in terms of past literature and elaborates on its strengths over the other methods. The fourth section, 4.4, describes the research design with a further explanation of the study purpose, types of investigation, research interferences, study setting, and time framework. The fourth section (4.4) further elaborates on the questionnaire, contents, wordings, and layout criterion. The fifth section (4.5) describes the population and sampling details of the thesis to support the hypotheses testing. It further highlights the choice of the sample, explains the target population, clarifies the sample framework, defines the sample unit, and describes the sample size. The sixth section, 4.6, concentrates on the instrument development and contents of the questionnaire. Section 4.7 specifies the scale used. Section 4.8 and 4.9 describes the data-gathering techniques and the pilot testing, respectively. Section 4.10 unveils the data

analysis through structural equation modeling using Smart PLS. The last section, 4.11, concludes the chapter by giving ethical considerations and a summary of the chapter.

4.1 Research philosophy

The selection of research philosophy (epistemological and ontological considerations) depends on the researchers' belief and how it proceeds with the phenomena and analyses the data. Studies highlighted that the research viewpoint is all about the nature, knowledge development, and sources of knowledge acquisition. Although knowledge development is not an easy task, it happened through collective efforts by all researchers through their inputs, findings, and study conclusions. Creswell, Plano Clark, Gutmann, and Hanson (2003) put forth that the ontology research philosophy is related to explaining what is required for the study, while the epistemology answers the query related to how to achieve the research objectives. Similarly, axiology is related to the value of knowledge, and rhetoric answers the query related to how the study will write and includes a methodology that defines how the study will proceed or be processed.

A. Positivism

The positivist approach of epistemology is related to the independency of investigation. In this approach, researchers focus on empirical research to accept or reject a theory-supportive hypothesis. It is also a logical and experiment-based method to find some deductive-based results. Hirschheim (1985) explained that "this is a historical practice that is ingrained in the society for knowledge claims not anchored in positivist philosophy are simply discarded as unscientific and consequently invalid." Positivists believe that cause-and-effect linkages govern the world's many phenomena and that the nature of such relationships can be statistically explained by knowing and analyzing the relationships

among the variables. They believe that reality is fixed and can be observed objectively without disturbing the phenomenon. Research stated that the postpositivist challenged the idea of absolute truth. In sum, positivists attempt to be separate from the participants in the research and keep themselves neutral so that the research can be conducted and concluded objectively (Carson, Gilmore, Perry, & Gronhaug, 2001; Hudson & Ozanne, 1988).

B. Interpretivism

In the same vein as positivism, under discussion approach considers that social science research is different from scientific research (Bell and Bryman, 2007). It incorporates human concerns into the research inquiry, and thus, it believes that "reality" can be reached via social constructs (like language, consciousness, shared meaning, and instruments) (Bell and Bryman, 2007). This paradigm aims to assess the human and objects of social interactions to explain the cause(s). The critical difference between these two approaches, i.e., positivism and interpretivism, is related to studying certain phenomena where the researcher can (not) affect the phenomenon. The positivist approach suggests that the researcher is quite separate from the study, while interpretivism believes that the researchers cannot be isolated from the study (Creswell et al., 2003). The reality in society is considered subjective and a part of scientific knowledge in interpretivism. Carson et al. (2001) confirmed the interpretive approach and said that knowledge is a phenomenon that cannot be determined objectively; instead, it is socially constructed. Therefore, this approach avoids the rigid and structural frameworks and emphasizes more flexible research structures that further capture meaning in human interactions (Carson et

al., 2001). They aim to understand the meanings of human behavior and generalize it after predicting the cause and effect (Hudson & Ozanne, 1988).

A. Objectivism

Objectivism presents the space where social entities exist independently of the social players concerned with their survival interactions (Carson et al., 2001). Objectivism holds those social phenomena that are separate from social factors. According to previous research, "cultures may be seen as collections of commonly accepted values and traditions that people were socialized and useful members of society or full participants" (Bryman, 2015). According to this explanation, people may be constrained by their cultures (beliefs and value systems). Bell and Bryman (2007) summarized that knowledge is constant and stable due to its properties of being knowable and unchanging. Moreover, he argued that the metaphysical assumption of objectivism is that "the world is real" and the human mind is like a "mirror" to analyze it.

B. Subjectivism/Constructionism

Subjectivism, also called constructionism, believes that social phenomena are fashioned from the social assumptions and consequential acts of the society concerned with their position. Constructionism is "a phenomenon and its meanings they have being accomplished by social actors" (Bryman, 2015). It is an ontological paradigm where the social phenomenon is achieved through researchers, and social actors are viewed as another form of social reality. The two main pillars of research philosophy (epistemology and ontology) propose different views and methodologies. Epistemology describes how we know things, while ontology tells what the things are. Epistemology elaborates on

many things we use to understand our world. It is called a science of knowledge and is sometimes considered meta-science. The area of philosophy known as epistemology focuses on knowledge's origins. Primarily, it deals with the possibilities, nature, limitations, and sources of knowledge, such as 'what constitutes knowledge is named epistemology (Hallebone & Priest, 2008). Guba and Lincoln (1994) categorized the research philosophies into three significant heads, i.e., epistemology, ontology, and methodology. They expounded that ontology denotes the questions related to the nature of examining reality. Epistemology states the questions relating to the relationship with the fundamental problem. The methodology specifies the questions and techniques concerning the research process, data collection, and validation of empirical results. Figure 4.1 presents the relationship among the various philosophical connections in the research paradigm.

Figure 4.1: Research Paradigm
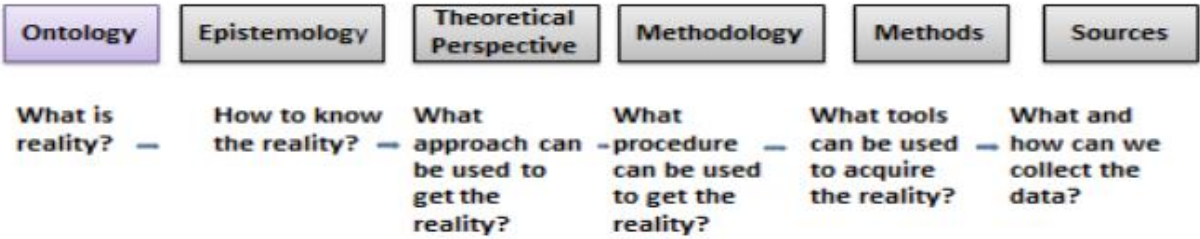
4.1.1   Deductive and inductive research approaches

Generally, positivist studies use a deductive approach (Crowther & Lancaster, 2008). The deductive approach is used to develop hypotheses consisting of some existing theories, and then a line of action is drawn to test the designated hypotheses. It is argued that "deductive reasoning is defined as moving from the particular to the universal. If a theory

or case study seems to imply a causal relationship or correlation, it may be accurate in many instances" (Sekaran, 2006). On the other hand, there is the theory-development method known as the inductive approach. The inductive reasoning (approach) is started with an observation, and the theories are proposed after getting the results of the observations. Unlike a deductive method, no hypotheses are formulated at the beginning of the research process. The two methods (deduction and induction) are the seasoning approaches in the research paradigm. The deductive approach is said to be more limited than the inductive because it (the deductive approach) is concerned with testing and confirming the hypotheses. It was imparted in various studies that the deductive method is a set of techniques that are rigorously applied to test the hypotheses to confirm and validate various theories in the real world (Sekaran, 2006). Sekaran (2006) explained that deduction refers to researchers arriving at "logically generated conclusions by using previously known data." The deduction process consists of many steps that were/are building blocks of scientific research. It was named the hypothetico-deductive method by Sekaran (2006) and was classified into seven steps. The researchers go through the seven steps while finalizing their findings and conclusions. From the sensory observation of various phenomena to get the main idea/problem, gathering initial data from relevant people, formulating a theory to get the information logically, making the hypotheses to test them subsequently, and scientifically getting more detailed data and making some conclusions. Inductive reasoning denotes the reasoning in which the premises of any argument are supposed to substantiate the conclusions, but the investigators are not sure about it in advance. In this process, the researchers observe a particular phenomenon and use this basis for drawing their conclusions; they first establish some general propositions on what they observe. Inductive reasoning is said to be more open-ended as compared to

deductive reasoning. The inductive method, as opposed to the deductive method, moves researchers from specific observations to draw broader theories and generalizations. Here, the process commences with measurements and observations, finding patterns and regularities, forming initial assumptions, and finally developing some generalizations, conclusions, or theories (Donnelly & Trochim, 2005). Some scholars have consensus on using a mixed method where researchers apply the both deductive and inductive methodology to get better observations, logical research process, and arrive at conclusions with sound grounds. The exploratory-type questions of inductive reasoning and the confirmatory questions relevant to the deductive method in the same study were supported (Donnelly & Trochim, 2005). They concluded that the quantitative questions were relevant to the deductive approach to support theories. Thus, the quantitative research method could be used to test the hypotheses.

4.2 Research Strategy

The quantifiable methodology refers to the deductive method, which utilizes scientific techniques and statistical analysis to show how the chosen variables are related (Bell & Bryman, 2007). Some researchers stated that the quantitative methodology has four bases, i.e., objective ontology, positivist logic of deduction, voluntarism/unbiased axiology, and epistemology (Creswell et al., 2003). Quantitative data analysis depends on research questions and objectives, and accordingly, the researcher could apply appropriate statistical techniques to test their hypotheses to arrive at the conclusions (Sekaran, 2006). There are various techniques to acquire quantitative data. For instance, "online surveys, questionnaires, telephone surveys, kiosk surveys, in-person interviews, phone interviews, website interceptors, online polls, and systematic observations" (Bryman, 2015).

Regarding philosophical paradigms, the quantitative paradigm has a basis in positivism with an ontological position that asserts the proposition of one truth (abject reality) independent of human perception. The research and the researchers are separate entities as per the etymology, which clarifies that the researchers should not affect or be affected by the research. Quantitative research applies empirical research, indicating that reality is represented by empirical indicators (Sekaran, 2006). The method for data collection in quantitative research is usually surveys (may be written or in oral form), randomization, and highly structured protocols. The current study employed the quantitative method as a research strategy since it is among the most practical research techniques in the social sciences. This method is feasible for ascertaining the customers' behavior more reasonably and concluding their pattern of social commerce acceptance in developing countries. This method sounds good for ascertaining customer data, as the latest literature evidence its heavy usage for authenticating UTAUT2 and other technology acceptance studies (Khan et al., 2017). The deductive and quantitative methods can be successfully applied to test and confirm the validity/reliability of earlier research hypotheses that rely on experimental methods (Cooper & Schindler, 2005). This study evaluates the hypothesized relationships in the developing area of technology acceptance by social commerce users to examine the issue of technology acceptance objectively without researcher impact on the investigation. Moreover, the study fills the research gap by formulating relationships/hypotheses out of the past literature, which needs statistical tests to authenticate the constructs. So, following the guidelines of Cooper and Schindler (2005), this process can be done using quantitative methods. One may argue that formulation of theoretical propositions and validation could be possible with the help of the quantitative method. Therefore, most of the recent literature used the quantitative methodology to ascertain the customers' PI toward social

commerce (Afshan & Sharif, 2016; Baptista & Oliveira, 2015; Khan et al., 2017). In social sciences research, while scientifically validating the theoretical generalizations, researchers need a quantitative approach so that it may be numerically tested (Creswell et al., 2003).

4.3 Selection of survey research strategy

It is always considered crucial to select an appropriate method for conducting reasonable and justifiable research. Various researchers have proposed different methods for data collection in the social sciences and technology acceptance studies. Laboratory experiments method, field experiments method, administering surveys, case studies approach, action research, grounded theories, ethnography, phenomenology, mathematical modeling, and simulations are some of the techniques that the previous studies have used (Chen & Hirschheim, 2004; Creswell et al., 2003; Sekaran, 2006). All these methods have their pros and cons. However, the survey method is frequently used and preferred by researchers to know the responses of individuals in voluntary as well as mandatory settings (Venkatesh et al., 2012). The survey approach was used for the current study's data gathering for two key reasons. First, the past literature shows that the survey has been widely used for investigating customers' PI or usage behavior with similar objectives. Secondly, It relates to the context of this study. When the customer's intentions are to be investigated, it is very rational to use the survey method (Chen & Hirschheim, 2004). The above two points (reasons) are highlighted in the following sub-headings. It will help to understand it properly.

4.3.1 Rationales for selecting survey approach

Besides the heavy usage of the survey method in the past literature, it is discernible to employ it today because it is a means of quick, efficient, and accurate data gathering for assessing information processing (Zikmund et al., 2003). The survey method is quickly developed and systematic as compared to other methods. Orlikowski and Baroudi (1991) stated three objectives of the survey. First, it is appropriate when a study needs a quantitative method to inquire about standardized information (like hypotheses and the relations among them) about any selected subject (like individuals or groups). Secondly, it is preferred in studies where data collection requires questions to be asked in a pre-defined structured way. Third, it is used when a study tends to generalize information about the attitude or behavior of the whole population by using samples. Some researchers have enlisted other benefits of the survey method, such as its cost-effective method; it is flexible method; it is extensive (explaining a large population with a small sample), and it is dependable. The respondents can give a response without disclosing their identities. In other words, the survey is beneficial because its cost-effective and generalizable (Orlikowski and Baroudi, 1991). The researcher also highlighted the negative aspects of a survey; it is not always flexible, and there is also a validity problem. Consistent with the approach of past studies, the current study aims to examine the antecedents of PI and usage behavior of individual customers towards the use of social commerce for online shopping in Saudi Arabia. The study applies a positivist approach by using the quantitative method of inquiry. The context of organizations or groups favors using the case study approach (Creswell et al., 2003) for obtaining relevant information. However, at the individual unit level analysis, the survey method has been extensively used and is reasonable (Gilbert, 2001). Because in this study, the unit of analysis is individuals, so using the rationale of

previous studies (e.g., Abbasi et al., 2015; Gilbert, 2001), the study adopts surveys (questionnaires) to collect the data from the customers who are social commerce users in Saudi Arabia. This survey method (questionnaire) could be distributed to many customer-commerce users, easily manageable to reach the geographically scattered users, and highly beneficial in terms of cost and time. The second preference for the survey method is the correlation to the extent where a researcher is supposed to be separate from the context being studied (Creswell et al., 2003). As the study investigates the factors of social commerce adoption at an individual level, consequently, it was inappropriate to employ interviews, ethnography, or observation while assimilating into the setting or any other similar method(s) in the interpretivist epistemology. The study also examines the moderating role of customer demographic factors (gender, age, and experience). According to Hair et al. (2006), a minimum of 100 observations is required for moderation analysis. Therefore, using the survey method seems more motivating and feasible than other methods. Finally, the survey selection is based on the search of past literature scholars have used for research purposes in technology acceptance studies. The literature on UTAUT/UTAUT2 and the studies using customer demographics as moderators have already used the survey method (quantitative-positivist approach) (Abbasi et al., 2015; Afshan & Sharif, 2016; Baptista & Oliveira, 2016; Khan et al., 2017; Venkatesh et al., 2003; Venkatesh et al., 2012). Therefore, following the previous studies, this research adopts and uses the survey method to achieve the research objectives.

4.4 Research design

In any research, the research design is critical, as it illustrates the framework that drives the conduct of the research through the search to find the answers to research questions

(Cooper and Schindler, 2011). The central theme of this study is to examine the factors influencing customer PI and use behavior toward online shopping through social commerce. It ensures that a researcher will address the research problem as unambiguously as possible. It consists of the blueprint for collecting, measuring, analyzing the data, and reaching a conclusion. Creswell et al. (2003) expounded that research design is the overall mechanism that starts from the formulation of the research problem, making the procedure for data collection, following the ethical research standards, setting a technique for the analysis of data, and the researcher role during the data collection period. Determining the proper steps and following them accordingly (per the research design) leads to success (Creswell et al., 2003). The steps in research design are like the stairs where each step needs to be successfully covered (say completed) before going to the next step. Bell and Bryman (2007) advocated that a good research design furnishes the structure for collecting the data and then analysis by indicating that the design prioritizes some steps or dimensions over others in the research process. They termed research methods to be the techniques for collecting data, which can involve structured instruments like questionnaires or structured interviews. Sekaran (2006) interpreted research design in terms of "a series of rational decision-making" and classified the whole process of research design into six steps (i) the purpose of the study (whether it is an exploratory, descriptive, case study or hypothesis testing), (ii) methods of investigation (causal or correlational), (iii) researchers' interference level (minimal, moderate or excessive interference), (iv) the study setting (contrived and non-contrived), (v) unit of analysis (Individuals, dyads, groups, organizations or cultures) and (vi) time horizons (cross-sectional or longitudinal analysis). The process of research design consists of various steps. The first phase involves finalizing the research model, i.e., formulating hypotheses

based on previous literature (Chapter No 3), consistent with the research objectives (Chapter No 1). The second phase of research design discusses the appropriate methods and procedures to answer the research questions correctly (the current chapter) and validate (Accept or reject) the hypotheses by applying various statistical tests. The last stage of research design involves the data collection procedure (present chapter), empirical evaluation (chapter No 5), discussion and conclusion, final recommendation, and direction for future studies (chapter No 6).

Figure 4.2: Research design
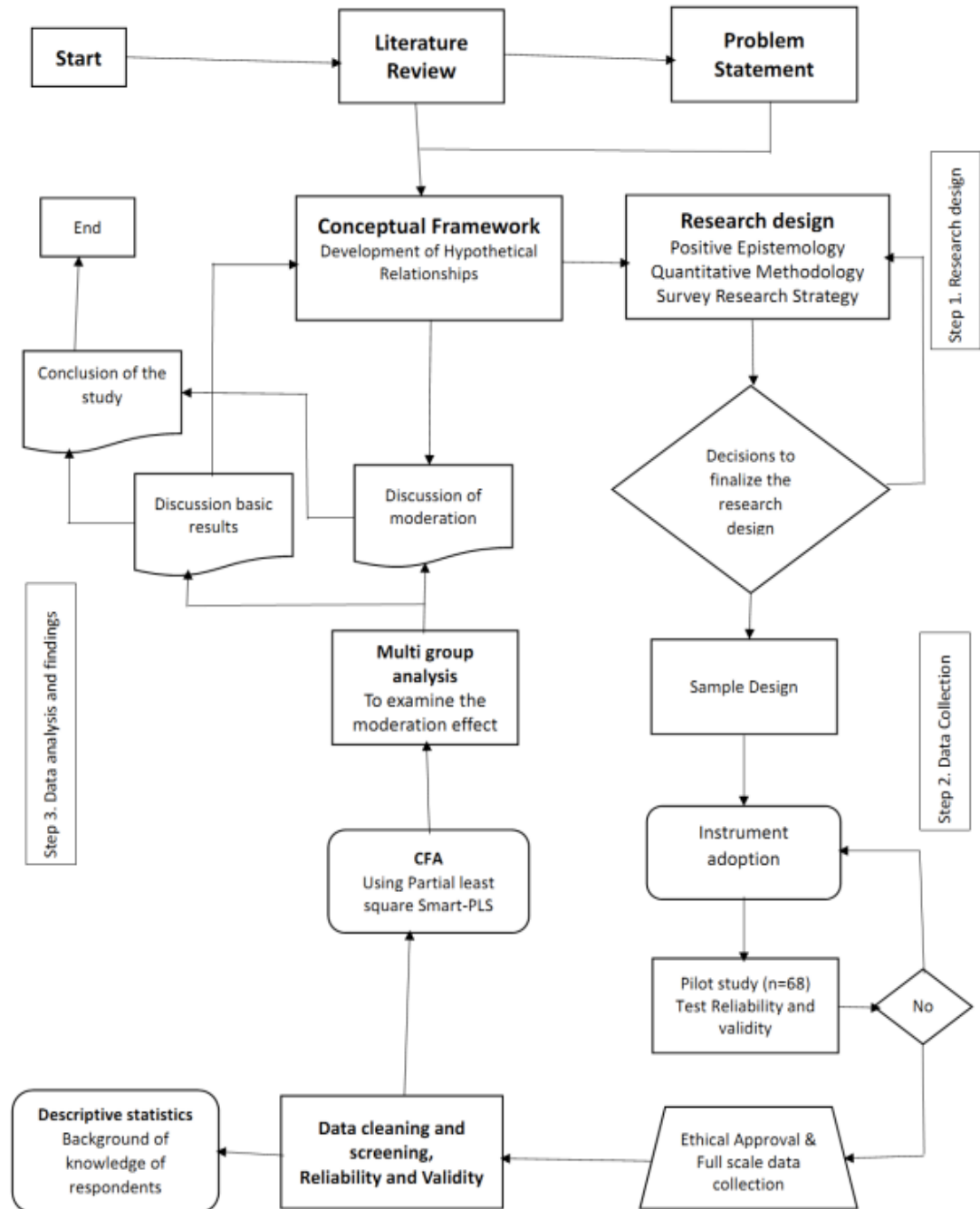
4.4.1 Deciding the research design

The preceding chapters highlight the initial three steps of the research design. Investigating the factors of technology acceptance among the different users, defining and explaining the conceptual model, and formulating the hypotheses have already been discussed. The previous chapters evidenced and guided a combination of the positivist philosophy with a quantitative method for data gathering. This chapter deals with finalizing the process to accomplish the goals of this study. In this connection, the six points Sekaran (2006) described are pertinent and guide the author. Taking the steps, the study proceeded with defining the goal, fixing the type of investigation, clarifying the extent of researcher interference, deciding the setting of the study, considering time horizons, and explaining the unit of analysis. Table 4.2 gives a birds-eye view of the six steps.

4.4.2 Purpose: hypotheses design testing

This study's goal is to test the hypotheses using empirical data. Sekaran (2006) classified the purpose of a research study into four types, i.e., exploratory, descriptive, hypothesis testing, and case study. Something new is explored in exploratory studies, primarily used where little information is available on the issue. It is also done if partial information is available, but researchers need more information to develop a viable theoretical framework. In descriptive studies, the researchers describe some phenomenon of interest from an individual or organizational perspective. It is also helpful in understanding the merits of organizations with similar practices. Case studies are employed where in-depth and contextual analysis of matters is examined, like other organizations' situations. The positivist approach is used in this investigation using the survey data collection method to

examine the connections between explanatory and outcome variables. Therefore, the hypotheses testing method has been reasonably applied in this study to accomplish the objectives of the study.

4.4.3 Types of investigation: a correlational study

The second step in the research design is the type of investigation, indicating the perspective of the investigation while testing the hypothetical relationships. The type of investigation has been divided into causal and correlational (Sekaran, 2006). It is argued that a causal study is undertaken when a definitive cause-and-effect relationship is investigated or when a researcher ascertains the impact of one/more variables on another variable. On the other hand, a study is called correlational when a researcher delineates significant contributing factors to the issue (Sekaran, 2006). It depends on the questions and the definition of the problem/research idea that leads to a causal or correlational study.

4.4.4 Extent of research interface with study

It is very pertinent to determine the proper approach and to understand the degree to which the scholar will become a part of the research (Choudrie & Dwivedi, 2005). The interference of the researcher depends on the flow of work in the environment and whether it is a causal or correlational inquiry. The correlational study needs a natural environment where the role of the researcher is minimum (Sekaran, 2006). In causal studies, the researchers attempt to control certain factors while studying cause-and-effect interactions and hence have a varying degree (may be low, moderate, or excessive) of affect on the context of the study (Sekaran, 2006). This study must consider the essential factors that influence social commerce acceptance in the Saudi context with a positivist approach, so the researcher's role is minimal as per the standard guidelines of the previous researchers.

The researcher has no intervention to affect participants' responses to process their independent and voluntary responses for onward analysis fairly.

4.4.5 Study setting: non-contrived

The choice of research setting is unequivocally essential in the research design. The research can be conducted in a contrived or a non-contrived environment. If the work is in a natural environment with a standard way of work proceeding, it is called a non-contrived setting. On the other hand, the research conducted in an artificial (created deliberately) is known as a contrived setting. Sekaran (2006) said that correlational studies (field experiments) are performed in a non-contrived setting, while rigorous causal studies need a contrived setting where the researchers must go through lab experiments with a high level of control. As was previously indicated, the current study is correlational, so the study used a natural environment with minimum researcher involvement, i.e., a non-contrived setting.

4.4.6 Unit of analysis

The unit of analysis is a representation of the level of data aggregation. It is a part of the research design and is essential to the subsequent data analysis process. It depends on the researcher's interests and the research problem to decide which type of unit is appropriate to select (Sekaran, 2006). The selection decision for the appropriate unit of analysis is a crucial research dimension that needs to be considered when a researcher formulates a problem statement or defines his/her research questions (Creswell et al., 2003). This study looks at the variables influencing a person's behavioral intention and usage of social commerce based on gender, age groups, and experience in Saudi Arabia. So, in this research, the unit of analysis is individuals who are social commerce users.

4.4.7 Time horizon: cross-sectional

The aspect of research design relating to the time horizon can be cross-sectional or longitudinal. Sekaran (2006) explained that a cross-sectional (one-shot) study is "a study in which data is only collected once, sometimes over days, weeks, or months to address a research topic." She further highlighted the time horizon that, in some cases, researchers might be interested in studying people or phenomena at several different points in time to respond to the research questions logically. For instance, a researcher may investigate the PI before and after the introduction of online technology and might have to collect data at two points (before and after). Such a comparison of data collection at two/more time points is called a longitudinal study (Sekaran, 2006). The current study selects a cross-sectional study to focus on many customers and understand their behavioral intention toward the use of social commerce, as it is easy to use a large set of cross-sectional data and obtain the results of multivariate studies through SEM (Hair, Black, Babin, et al., 2006). Choudrie and Dwivedi (2005) also pointed out that cross-sectional is helpful to enable the collection of a significant sample quickly and without making the researcher wait a long time to get the data for the change in the dependent variable.

Table 4.1: Steps in research design

Steps described by (Sekaran, 2006)	Steps in Current research
1.Purpose of the study (whether it is Exploratory, Descriptive, Hypothesis testing or Case study analysis)	Hypothesis testing
2.Type of investigation (whether Causal or Correlational	Correlational
3.Extent of researcher interference in the study	Minimal interference of researcher
4.Study settings: Contrived, Non-contrived	Non-contrived
5.Unit of analysis: Individuals, Dyads, Groups, Organizations, Cultures	Individuals
6.Time horizon: Cross-sectional, Longitudinal studies	Cross-sectional

4.5 Population and sampling

Appropriate sample selection is essential in the research design process. The sample is defined as "a subset of the population." In contrast, the population refers to "the total group of people, events, or items of interest that the researcher intends to explore" (Sekaran, 2006). In the sample, the researcher carefully chooses a few components from the population to assess and make findings that may be applied to the entire population (Bell and Bryman, 2007). The term sampling refers to "the process of choosing enough components from all of the available options" so that it can fairly represent the characteristics of the population and be used for reasonable generalization. The researcher often uses the sample for his analysis and testing rather than the whole population because it is difficult (sometimes impossible) to collect/test/examine the data from hundreds or thousands of elements/persons etc. Data collection from the entire population is also prohibitively expensive in terms of time, cost, and effort. Table 4.3 gives details of the various sampling methods. Taking guidance from the basic framework for

sampling/population explained by Choudrie and Dwivedi (2005), the current study considers the following sub-headings to detail the issues of choice of the sample (probability and non-probability), target population, sample framework, and sample size.

4.5.1 Choice of Sampling

Recognizing the significance of participants and their relevant knowledge is always very significant, primarily when the data is gathered for onward analysis. Probability sampling and nonprobability sampling are the two forms of sampling; probability sampling is used for known populations, while non-probability sampling is used for unknown populations (Bryman, 2015; Sekaran, 2006). Each of these two kinds has a unique approach to handling the degree of generalizability, time constraints, and other resource considerations. In this investigation, the sampling method of choice is probability sampling. The selection of probability sampling is reasonable because the target participants of the study are individuals (social commerce of Saudi Arabia) who can be categorized demographically, i.e., based on gender, age, experience, and educational level, and it is equally necessary for everyone to respond. It would be plausible to select the non-probably sampling if the findings were aimed to be generalized to a specific group of individuals, like only males or females in a university. Sekaran (2006) clarified that non-probability sampling is preferable in the case of time factor or other generalizability concerns. The present study employed a convenience sampling technique (a non-probability sampling) to obtain data from Saudi male and female customers who use SNSs for online shopping. It will help cover a more significant sample within a short time and subsequently will be helpful in the data analysis stage.

4.5.2 Target population

It is a central question in a research setting to decide appropriately about the target population (Choudrie and Dwivedi, 2005). Rationally, the specific settings are decided to set the boundaries for the research generalizability. Such boundaries may be called limitations on hypotheses made within the framework. Thus, the research process can be highly assisted through appropriate settings, which in turn facilitate the researchers to test or examine the proposed model and get empirical results more realistically and reasonably (Eisenhardt, 1989). Therefore, selecting the unit of analysis is within the setting and is based on the entire population. Bell and Bryman (2007) explained that population is the universal set of units from which the sample is derived. Population expresses the sum of samples or all the elements that conform to the targeted population, for example, groups, students, unions, cities, countries, colleges, organizations, and hospitals (Zikmund et al., 2003). The target population of this research is the online Saudi Arabian male and female shoppers, which is too large in number and, therefore, cannot be accessed by each customer. Therefore, the researcher employed an online survey for the collection of data.

4.5.3 Sampling framework

It refers to the framework (also called working population) that enlists the units derived from the target population and from which the researcher selects his/her sample (Sekaran, 2006; Zikmund et al., 2003). This study follows the criterion laid by Eisenhardt (1989). Building theories from case study research. Academy of Management review elucidated the following points;

• The framework should be complete and accurate so that all sample elements represent the target population fairly.

- The framework should be adequate that can cover the population reasonably.

- The framework should be updated and include the latest information to depict the latest trends related to the target population.

- The subjects within the sample should be quickly and conveniently reachable.

- There should be no duplication within the sample framework.

This study uses the framework of the sample taken from social commerce users of Saudi Arabia. The variety of online shoppers from different Saudi areas will help accurately describe the whole population and its cultural background. As it is costly and time-consuming to reach and collect the data from all the customers (whole population) in Saudi Arabi, the study uses a sample of online shoppers with different genders and age groups having variant social commerce usage experiences who are accessible and aware of the online shopping and use of SNSs for such purpose and who understand to give voluntary responses to the questionnaire.

4.5.4 Sampling unit

The unit of analysis represents the characteristics of social objects/entities that are the researcher's focus (Choudrie and Dwivedi, 2005). The unit of analysis may be either in the form of a single unit, like case studies/survey research, or a combination of the two, or multiple units, as in hierarchal data analysis (Choudrie and Dwivedi, 2005). The current study's unit of analysis is the individuals who are social commerce users from different genders and age groups and who are aware of online shopping facilities and SNSs. In examining the moderation effect, the study has grouped some demographic variables to properly probe the impact of demographic variables on individual shoppers' PI and user

behavior. Collecting data at a lower/individual level can be further aggregated into groups at a higher level (Sekaran, 2006). As the study aims to investigate the factors that generate behavioral intention and use behavior towards social commerce in different gender and age groups in Saudi Arabia, it is more appropriate to analyze individuals who are SNSs users.

4.5.5 Sample size

It is a debatable question to specify the adequate sample size. Suppose the sample size is smaller than the estimated size. In that case, it will lead to failure chances and improper solutions (like harmful errors), and the parameters will have less accuracy (Hair, Black, Babin, et al., 2006). On the other hand, a larger size will cost the researcher in terms of expenditure, time, and effort. It will require high resources to collect and process the more significant (more than the required) size (Bryman, 2015). Therefore, deciding the appropriate size is economical, reasonable, and representative of the whole population is crucial. When the sample size is appropriate, the results can be trustworthy and reliable (Sekaran, 2006). In the present study, to determine the sample size of the population of 19.9 million Saudis who are online customers according to Statista 2022, the researcher followed the rule of thumb suggested by Saunders et al. (2009) and estimated the sample size at 95% confidence level, which is 385. However, using a convenience sample, the researcher obtained 596 responses above the required sample. The researcher obtained data via an online survey from social commerce users in Saudi Arabia.

4.6 Measures

When the proper sample unit and size are determined, the next step in research design will automatically begin with the instrument development. An accurate, complete, and relevant

instrument is essential to achieve the research objective (Sekaran, 2000). It is worth noting that the research instrument should be capable of correctly replying to the main question(s) identified by the researcher (Sekaran, 2006; Zikmund et al., 2003), especially the instrument should justify what is being measured (have good construct validity) and how it is being measured (have good construct reliability). The current study adopts the procedure described by Sekaran (2006), who specified three stages for a valid instrument. The first stage is the development of instrument contents, where the issues of selection, categorization, scaling, and initial coding are discussed/solved. Second, the important thing is the wording of the instrument. The third stage concerns the instrument's general appearance or layout. The author approached the previous literature on technology acceptance for adapting the survey questionnaire, especially the UTAUT model (Venkatesh et al., 2003) and UTAUT2 model (Venkatesh et al., 2012), and SCC and user trust (Sheikh et al., 2017) are considered and incorporated for the instrument development. In this research, the researcher considers that the relationship between SCC is reflective because the constructs themselves are interdependent and mutually influential. In other words, each construct has an impact on the other, and the overall relationship between them is dynamic and reciprocal. For example, reviews and ratings and recommendations and referrals are two core constructs of SCC, and they are intimately related: reviews and ratings can enhance recommendations and referrals, and recommendations and referrals can reinforce ratings. Therefore, a reflective relationship is the most appropriate way to conceptualize the relationships between social commerce constructs, as it reflects the complex interdependence between the constructs and their impact on each other. Additionally, other research literature and questionnaires have been studied/considered for

the wording and layout of the final instrument (Baptista & Oliveira, 2015; Brown & Venkatesh, 2005; Khan et al., 2017).

4.6.1 Content development

The contents of the questionnaire are developed keeping the main research question in mind. This study investigates the factors that generate behavioral intention and use of social commerce by customers having different gender, age, and social commerce use experiences in Saudi Arabia. The context of the study is the social commerce use and the online social commerce users being engaged in using SNSs for social interactions and online shopping using these SNSs in Saudi Arabia. The primary constructs that have been focused on the instrument are the various behavioral variables, UTAUT2, social commerce constructs, and use behavior. To check the moderating effect and to intend to throw light on the use of social commerce among different gender and age groups in Saudi Arabia, the contents included respondents' data such as their age, gender, and experience. The five-point Likert scale has collected responses ranging from strongly disagree (1) to agree (5) strongly. Seven independent variables exist (PC, EE, SI, FC, HM, PV, and habit). At the same time, SCC and user trust effect on behavioral intention were also assessed by collecting data through adopted questionnaires. The respondents tick their choices by selecting responses from 1 to 5 (strongly disagree to strongly agree). The questionnaire also determines participants' responses to know their PI and usage behavior.

4.6.2 Questionnaire composition

The respondents' attention and interest can be raised through effective wording and layout of the questionnaire. As described by Hinkin (1995), the survey is still the most popular way to gather data in organizations by using various measures. However, it is equally

important that the questionnaire be comprehensible, accessible, and have an exciting presentation so that the participants can go to the end effectively and attentively. Sekaran (2006) proposed five principles for the wording of a useful questionnaire; (1) The contents of questions should be appropriate for tapping the variables and adequately represent all the dimensions of given variables/constructs. (2) The questions should be worded with a high level of sophistication and understandability so that they can be adequately understood everywhere. The researchers should consider the educational level and cultural background of the respondents. (3) Type and form of questions should be used according to the research objectives and must be free of biases. The researcher should use appropriate open-ended or close-ended questions and take care of the negatively worded questions. Double-barreled (that lends itself to different responses), ambiguous, technically worded, leading questions (that leads respondents to desired response), loaded questions (that triggers emotions), recall-dependent questions (that might irritate or put the respondents in hazy to recall his/her distant past), and questions of social desirability (that prone to socially desirable response) should not be asked. Moreover, the length of the questionnaire should be carefully set. As a rule of thumb, a question should not have more than twenty words (Hinkin, 1995). (4) The questionnaire sequence should be general to specific and easy to complex so that the respondents can progress and finish it smoothly. This is also called a funnel approach (Sekaran, 2006). Positive and negative questions for the same dimension should not be used consecutively. (5) Personal or demographic information should be obtained keeping in view the feelings and respect for respondents' privacy. In this regard, the present study intends to explore the subjective feelings of online shoppers engaged in SNSs and the use of SCCs, measured through the minor and Likert scale procedures. The study uses questions in Arabic (the national language of Saudi Arabia).

The questionnaire has been set to be comprehensive, understandable, and free of biases (without the load, leading, double-barreled, or socially desired questions). The wording of questions is short and without technical jargon. The questions can be categorized as open-ended or closed-ended. Bryman (2015) and Sekaran (2006) remarked that open-ended questions suit the researcher when there is an exploratory study, and the researcher wants an accessible description of opinions. However, descriptive or causal studies require a closed-ended questionnaire. This study, keeping in view its objectives, uses a closed-ended questionnaire, considered easy and less time-consuming for the respondents to complete. The closed-end questions are also easy for onward coding and tabulation in quantitative data analysis (Zikmund et al., 2003). The questionnaire layout may be set as per the context of the research work. A questionnaire with a good introduction, clear instructions, and proper alignment of the questions are all critical in the "get up" of a questionnaire. The demographic information can be given at the questionnaire's start or end (Sekaran, 2006). Some researchers disfavor putting personal information at the beginning of the questionnaire by arguing that it is easy to answer and then the remaining parts will be boring for respondents (Hinkin, 1995). This study keeps the personal information at the end of the questionnaire.

4.7 Scale used

Sekaran (2006) categorized the rating scales in organizations into ten classifications (dichotomous scale, category scale, Likert scale, numerical scale, semantic differential scale, itemized rating scale, fixed or constant sum rating scale, Stapel scale, graphic rating scale, and consensus scale). Among the various categories, the Likert scale (anchored at five-point) is mainly used by researchers. The Likert scale is preferable because it is the

most effective way of data collection, and secondly, it has been widely used in the relevant published literature, for example, among others are (Afshan & Sharif, 2016; Baptista & Oliveira, 2015; Khan et al., 2017; Venkatesh et al., 2003; Venkatesh et al., 2012).

4.8 Data collection procedure

Sekaran (2006) states that data collection is essential to the research design. Data collection builds a repository of responses from the target population on a specific topic. Researchers have mentioned various methods for collecting data depending on the nature of the research. The survey method is frequently used to assess organizational phenomena that are difficult to assess directly (Schneider et al., 1996). The survey is shaped into interviews and questionnaires, widely used as a primary data collection source. The interviews can be managed face-to-face, through telephone/mobile, or with computers. Similarly, questionnaires can be administered personally, through email, or by any other electronic means (online/internet survey) (Bryman, 2015; Sekaran, 2006). The selection of a specific method for data collection depends on the sample size needed, the types of research questions, the number and contents of the research instruments, and time and cost factors (Schneider et al., 1996). The current study adopts the survey questionnaire as a data collection method. The researcher has adopted and aligned the questionnaire with the study's objectives. The questionnaire comprises a set of close-end questions, as previously mentioned, being preferred in behavioral and social sciences research (Schneider et al., 1996). The study managed to collect the data through an online survey, which is an effective way to collect data (Zikmund et al., 2003). Online surveys are beneficial due to several reasons.

(a) Large coverage: It covers many participants. As earlier mentioned, respondents for the current study are online SNSs users who are geographically spread throughout Saudi Arabia. So, contacting each customer personally and interviewing them physically is impractical. (b) Saving time and money: The online survey method is cheaper and less time-consuming (Sekaran, 2006). Unlike the self-administered questionnaire, the link of online surveys can be shared on social media platforms, saving time, effort, and money. This cuts traveling, lodging, food, and other printing costs. Therefore, this study used an online survey for data collection; the researcher also attached a cover letter with the online survey, which mentions that personal, social, or sensitive information is optional for the respondents. Using the online survey tool Qualtrics, the survey was sent to the potential research participants as web links. The web link was forwarded to many Saudi Arabian social media users on different SNSs such as Instagram, Facebook, and Twitter. The total number of participants who began but did not complete the survey is shown by a feature offered by Qualtrics, which was 760. Nevertheless, only 596 people in total completed the survey. As a result, 596 web-based surveys were used for data analysis and hypotheses testing (see Table 5.2 for more detail).

4.9 Pilot testing

After completing the survey instrument's initial design, the researchers evaluate its feasibility, time, costs, and wording before conducting it on a large scale. In this regard, the pilot study tests the initial instrument before starting the primary data collection process to know its initial reliability and validity (Sekaran, 2006; Zikmund et al., 2003). Researchers have stressed piloting the initial instrument so that the possible weaknesses and flaws in the survey instrument can be timely addressed/eliminated (Schneider et al.,

1996). The pilot study aids in testing the wording, sequence, layout, replies, time, and analytic process. There are several opinions on how large the sample size for the pilot study should be. Connelly and Kelloway (2003) suggested that the pilot study sample should be 10% of the large planned size. Schneider et al. (1996) pointed out that 10 to 30 participants are enough for the pilot study. However, other researchers viewed that there is no hard and fast rule for determining the sample size of pilot research because it is affected by numerous (Schneider et al., 1996). The current study used 100 responses for the initial pilot study before launching the more extensive survey. It helped the author correct the wording, layout, and presentation of the survey questionnaire in several ways.

4.10   Data analysis process

Data analysis and findings are followed by the research design and data collection requirements. The study divides the data analysis into two stages. The first phase comprises the preliminary data analysis, while the second stage deals with the structural model evaluation. The first part presents descriptive statistics, which show information regarding the number of respondents and their qualifications. For the descriptive statistics, the study used SPSS, which is considered an essential tool for data analysis (Tabachnick & Fidell, 2007). The SPSS (version 24) was used from the file setting (coding, checking for missing data, checking normality assumptions, and cleaning the data), preliminary analysis to the final analysis, and Smart-PLS 4 software for SEM. The second major part of the analysis is evaluating the proposed model and checking the relationships among the chosen constructs. The study uses SEM (sometimes called path analysis with latent variables) to investigate the predictor's effect on outcome via mediator when some moderating effects also notice. The SEM is a set of mathematical models, computer

algorithms, and statistical methods used to fit the networks of multiple constructs (including confirmatory factor analysis and path analysis) (Kline, 2005). The study has categorized the analysis into two broad families. One is the modeling based on covariance for which the AMOS has been used, and the other is the variance-based modeling (also called component-based modeling) for which the study applied Smart-PLS 4 (Ringle, S. Wende, & A. Will, 2005).

4.11   Consideration of research ethics

Ethical consideration requires more attention while examining research on human behavioral issues. The lack of such consideration may result in the lack of cooperation during the data collection process or the analysis stage. Sekaran (2006) listed various cases considered unethical that need to be avoided in the research process. She highlighted the following issues; (i) Pressurizing individuals to respond or participate in the survey through coercion, political influence, or any other social pressure, (ii) Diminishing the self-respect of individuals through asking critical questions, (iii) Increasing the mental or physical stress of participants, (iv) Prohibiting subjects/individuals from leaving the research if they want to, (v) Exposing the respondents to a dangerous environment, (vi) Not preserving the confidentiality or secrecy of information/respondents and (vii) Manipulating the data to get the desired results without actual results. Swanson and Holton (2005) described that researchers should be entirely ethical in their methods and conclusion. They categorized the researcher's ethical practices into two heads; a) Respect for persons, beneficence, and justice: It was explained as the persons/participants must be capable of making independent decisions and choices. They should voluntarily enter the research and must be given adequate information to do so. Moreover, they should be

protected and saved from any stress or harm. The participant's autonomy and secrecy should be preserved every time during the research process. b) Plagiarism and Attribution: The researchers must acknowledge and honor the contribution of other scholars to the available knowledge. In this regard, plagiarism should be kept in mind, which is academic and intellectual dishonesty. The researcher should not steal the words, ideas, and methods of any other researcher without his/her proper consent, acknowledgment, and complete citation. Plagiarism is unethical and violates the intellectual property rights of other researchers/organizations. The current study has followed ethical practices from starting the project until completion. The author has followed all the codes of ethics during data collection, data analysis, a write-up of the dissertation, and a conclusion with complete honesty and responsibility. The participants were given/sent a cover letter showing the research title and the study's purpose and informed that participation is entirely voluntary. Moreover, they have been given complete autonomy, confidentiality, respect, and anticipated benefits. The study has cited/referred to all those scholars/articles whose work has been studied and used.

4.12 Chapter Summary

The present chapter provided comprehensive information on the study settings, research design, and the scale used to analyze the proposed relationship. The first part of this chapter provided information concerning the study context, i.e., Saudi Arabia, a collectivist society with higher scores in uncertainty avoidance, masculinity, and power distance (Hofstede, 2011). The online business practices Saudi Arabian companies follow are similar to Western companies. However, private sector enterprises use more advanced methods to attract customers than public companies. The last part provided details

regarding measures used in this study. All the measures were adapted from the previous literature with stress on selecting those measures which have been already validated and found reliable in the Saudi Arabian research context.

CHAPTER 5: RESULTS

5.1 Overview

The preceding chapter discussed and clarified the research methodology of this research. The research framework stated in the above chapter requires a complete evaluation and measurement in terms of the findings' validity and reliability. This present chapter contains six sections. The first section (5.1) deals with a preliminary analysis, which includes a focus group and a pilot study. The pilot study's purpose was to test the initial reliability and validity of the scales employed in this study. The focus group helped modify the initial wording and layout of the questionnaire. The next section (5.2) illustrates the screening of the data. This section lists the missing value analysis, analysis of aberrant values and multivariate outliers, descriptive statistics, and normality tests and sheds light on common method bias and its remedies. After the data screening stage, the third section gives the detail of descriptive statistics and the demographic detail of the respondents. Section 5.4 is dedicated to the data analysis. This section provides an examination and results of scale reliability and validity used in this research. This section gives further detail about the measurement model, describes the structural model results, and finally entails the moderating effects of customers' gender, age, and experience. The last section also justifies the use of SEM through Smart-PLS 4 software.

5.2 Focus group

A Focus group is a group of people that researchers select to study, discuss, evaluate and comment on scale items used in data collection (Venkatesh et al., 2012). The final questionnaire was checked by a focus group of social commerce students, subject experts,

and consumers of the specific technology/services (i.e., social commerce). Before initiating final data collection, the researcher arranged a focus group of seven Ph.D. research students in social commerce and three assistant professors in commerce (who were online customers and experts) to confirm item statements' clarity and understandability. They examined the survey scale with every aspect and suggested some key points to ensure the survey items were clear and understandable. The survey was revised in light of the recommendation of the focus members, modified, and made more participant-friendly.

5.3   Pilot Study

Previous research suggested that before initiating final data collection from research participants, the researchers must check the reliability and validity of data through the pilot test. The main objective of conducting pilot testing is to resolve the earlier issues in the survey (such as grammatical mistakes, sequence layout, and ease of understanding). It is recommended that before pilot testing researcher should confirm that the survey should be error-free.

Firstly, 100 surveys were distributed among the potential respondents (e.g., Saudi social commerce users) to perform the pilot test. After deep verification, respondents were included in the pilot study, and those participants were part of the pilot testing not included in the final data collection of the research; maybe they influenced the final respondent's behavior. During the pilot testing, a special request was made to the respondents to please identify the items they thought were vague and those they could not answer. After the pilot test, minor modifications were made to get the final questionnaire which was distributed to respondents for data collection. Scholars explained the minimum sample size for pilot

testing (Gu et al., 2009); following past research, 76 samples are reasonable for pilot testing. The data was collected through an online survey. The seven questionnaires were excluded from the pilot testing analysis because of insufficient information. As a result, the pilot survey response rate was 76 %.

The primary purpose of the pilot study is to ensure that the research questionnaire must be error-free. Alavi and Carlson (1992) explained pilot study is the process of purification of the questionnaire to examine the required values. The first step after data collection is called exploratory factor analysis to ensure the reliability and validity of the data collected for a pilot study. Reliability and validity are fundamental values in data analysis. The researcher explained in detail the reliability and validity.

During the scale purification process, the researcher assessed the scale's content validity and reliability (i.e., Cronbach's alpha), confirming that all survey measures are error-free and yield consistent findings (Kline, 2011). It is worth revealing that the researcher performed exploratory factor analysis (EFA) on the initial responses to ensure that the data support the survey scales. The overall reliability score within the piloting was $\alpha=.801$ (80.1%) which is above the cutoff value suggested by 0.70 (Lacey et al., 2007). The Cronbach's alpha scores for the individual variables range from .832 to .641 (see Table 5.1). Only one construct produced a very low Cronbach's alpha value than the threshold level, i.e., trust (.644). After assessing each item of the variables' trust, it was noticed that items trust 5 and 6 produced lower item-to-total correlation (e.g., .13) than the suggested threshold level of 0.30 (Cooper et al., 2003). Therefore, the researcher excluded the trust's low factor items (i.e., trust 5, trust 6), which helped strengthen the reliability scores of the remaining four items of trust (.734), which are in the acceptable range (Peter, 1981). Table

5.1 also demonstrates that the Kaiser-Mayer-Olkin (KMO) statistics, the coieffient of KMO ranges from 0 to 1, and .60 is considered a minimum score for good factor analysis (Tabachnick & Fidell, 2007). Furthermore, the significance of Bartlett's test of sphericity for all variables indicates that the association among the measurement questions was greater than .30 and thus acceptable for EFA (Churchill Jr, 1979). The findings of this research also indicated that the total variance extracted by the variables' items is above .60 (Cronbach, 1951) except HT, trust, RR, and RAR. However, factor loadings for all items illustrate that these constructs have loaded scores greater than 0.50. Thus, as per the suggestions of (Kaiser, 1974), they were retained for further analysis (such as after a full-scale data collection process) (see Table 5.1). The table also exhibits the number of indicators for each construct, reliability value, EFA number of factors, KMO, Bartlett's test Sphericity, and the variance explained by each construct.

Table 5. 1: Measurement of sampling adequacy and total variance

Factor	No. of Items	Cronbach's α	EFA No. Of factor	KMO	Bartlett's test Sphericity	Variance Explained
Performance expectancy (PE)	4	.832	1	.779	0.000	66.7%
Effort expectancy (EE)	4	.772	1	.732	0.000	60.2%
Social Influence (SI)	3	.784	1	.620	0.000	70.2%
Facilitating condition (FC)	3	.701	1	.615	0.000	62.5%
Hedonic motivation (HM)	3	.751	2	.651	0.000	67.8%
Habit (HT)	4	.680	1	.616	0.000	52.71%
Price Value (PV)	3	.763	1	.615	0.000	68.5%
Trust	6	.644	1	.580	0.000	54.4%
Purchase Intention (PI)	3	.780	1	.610	0.000	69.6%

Recommendations and Referrals (RR)	4	.692	1	.650	0.000	52.3%
Forums and Communities	4	.809	2	.702	0.000	63.8%
Rating and Reviews	4	.689	1	.680	0.000	52.2%

The individual indicators' findings for most items showed that no changes were required for the full demonstration. This encompasses all the survey scales that measure PE, EE, SI, FC, habit, HM, PV, SCC (recommendations and referrals, forums and communities, and rating reviews), user trust, purchase intention, and usage behavior. The majority of the variables' scales showed that the reliability scores were over .70. Likewise, most of the survey scales exhibited that the item means are close to the natural means at the Likert-type scales. Finally, the item-total correlation within each measure as alpha-if-item deleted did not disclose the cause for any modifications of these items. Furthermore, the consistency between the constructs' items exists, where the means of the items are close to the scale (see Appendix IV for detail).

The pilot test results revealed modifications are necessary for three scales: user trust. Such as the user trust scale and two items, trust 5 and 6, these items had low total item correlation (r = 0.09), and Cronbach's alpha (0.64) would have been improved if the items were eliminated (α=0.72). These items were removed from the questionnaire used for the final data collection.

5.4   Main study data analysis

5.4.1   Data fit for analysis

Before the final data analysis, the researcher employed the following data screening approaches:

- Missing values analysis
- Aberrant value analysis

- Multivariate outliers detection

- Normality test

- Heteroscedasticity test

5.4.1.1 Missing analysis

The researcher obtained data through a survey. In the social science literature, a survey is considered one of the best methods for data collection from potential respondents. The survey is a commonly used method for quantitative research to examine the relationship between variables. The survey method might cause missing data problems. According to Hair et al. (2006), to get the higher precision data verified from the counter checked and the case was examined. In this study, with the help of two masters' students, carefully coded the data and countered checked. Thus, our final data set is error free from missing values. Missing values can affect results, so be careful while coding the data in the data set. The researcher replaces the missing values through the mean substitution method. Table 5.2 demonstrates the missing value per case. Out of 596 cases, only 09 cases had missing values, e.g., six cases with one missing value and four with three missing values. Therefore, the mean substitution method in SPSS was used to replace the data set's missing values. In social science studies, the mean substation method is considered one of the best approaches to replace the missing values.

Table 5. 2: Missing value analysis

	Frequency	Percent	Valid Percent	Cumulative %
Valid 0	587	98.50	98.50	98.50
1	6	1.00	1.00	99.50
4	3	0.50	0.50	100

	Total	596	100	100	

5.4.1.2 Normality Test and Descriptive Statistics

The normality test is characterized by evaluating the statistical data collected from the respondent as a standard normal distribution. There are two fundamental approaches to evaluating the normality in a data set: numerically and graphically. Numerical representation, as shown in (Appendix IV Table 1M) used different values such as mean, standard deviation, Skewness, and Kurtosis. The Skewness threshold values should range from +1 to -1. Furthermore, Kolmogorov-Smirnov and Shapiro-Wilk (K-S) tests are well-known for examining the normality of data received from respondents. Kolmogorov-Smirnov, if lower significance (P< .05) indicates that data has typically distributed, presented in Table 1 in Appendix A.

The Kolmogorov-Smirnov and Shapiro-Wilk (K-S) statistics (Hair et al., 2006) were calculated for each construct. The findings (see Table 1M in Appendix IV) illustrate that all the constructs were significant, violating the normality assumption. The significance of the K-S test was expected because of the large sample size (Hair et al., 2006, p. 62). Hair et al. (1998, p. 93) imply that the significance of the K-S test for a large sample size cannot be viewed as data deviation from a normal distribution. Results show that all the values are in the acceptable range for every single construct of instrument used in the research framework. Table (see Table 1M in Appendix IV) revealed all the values of metrics like as skewness, standard deviation, and kurtosis are in an acceptable range.

5.4.1.3 Homoscedasticity

In the current research, Levene's test for the metric constructs estimated values of the non-metric construct (gender) as a part of the t-test. Most of the computed scores (see Table

1N in Appendix IV) except EE higher than the minimum significant value, i.e., $p < 0.05$, which recommends that variance for all the constructs was equal within different age groups of female customers and had not violated the supposition of homogeneity of variance.

In this current research, Levene's test was used to examine the homogeneity of the data. The results of this research illustrate that the significant level of the p-value for most of the computed scores (see Table 1O in Appendix IV), except EE, were greater than the bare minimum threshold values, i.e., $p < 0.05$, which indicates that variance for all the variables was equal within different age groups, for example, younger and older participants and had not violated the assumption of homogeneity of variance.

5.4.1.4 Multicollinearity

The research framework used in this study consisted of thirteen variables and was combined into one theoretical model. Multicollinearity occurs when some high correlation exists among the predictors of the conceptual framework. The high multicollinearity affects the results of the study. The main problem with this high multicollinearity is that it directly affects the coefficients of the predictors. The results show that Table 5.3 indicates that there is no high correlation among the variables of the proposed conceptual framework.

Moreover, the researcher also computed tolerance and variance inflation factor (VIF) to analyze the multicollinearity among independent variables of this study. The research results (Table 1P in Appendix IV) indicate that the VIF scores of all the independent variables were between 2.12 to 1.06, and the tolerance values were more significant than the cut-off level of 0.10 (Shapiro & Wilk, 1965). Thus, our results show the absence of

severe multicollinearity issues.

Table 5. 3: Pearson correlation for observing multicollinearity

	1	2	3	4	5	6	7	8	9	10	11	12
1. PE	--											
2. EE	.579											
3. SI	.570	.422										
4. FC	.437	.604	.352									
5. HM	.053	.044	-.020	.018								
6. PV	.460	.275	.322	.344	.035							
7. HT	.454	.518	.355	.604	-.009	.252						
8. PI	.678	.419	.419	.553	.056	.555	.528					
9. FCOM	.447	.636	.341	.829	.036	.312	.662	.544				
10. RAR	.638	.406	.400	.445	.011	.450	.473	.691	.453			
11. RR	.327	.399	.290	.601	.026	.480	.511	.385	.502	.347		
12. TR	.425	.258	.396	.394	.034	.343	.500	.504	.303	.442	.351	
13. UB	.439	.367	.431	.465	.059	.312	.467	.534	.474	.416	.332	.613

5.4.1.5 multivariate outliers

The term outlier refers to "a case having an extraordinary value on one construct (a univariate outlier) or an unusual combination of scores on two or more domains (multivariable outlier)" (Pallant & Pallant, 2010, p.72). Researchers explained outliers as an observation in the data set that lies at an abnormal distance from the other values. These values are abnormal and far away from the data set average values. The major disadvantage of the outliers would affect the results of the study. Although, there are various methods to examine the outliers in the data set, such as stem or box plots. There are also many reasons for outliers in the data set, like entering the wrong observation, incorrect data entry, failure to specify the code, and due to human error of the researcher while coding the data. We used Z-score and plot box to find the univariate outliers, and we used the Mahalanobis distances for the multivariate outliers. Hair et al. (2006)

suggested that it is observation (s) which is dissimilar from other views because of high or low values. In this study, multivariate outliers were detected through the Mahalanobis Distance measuring method (items having α <.001) in our data. A total of 13 cases were reported with α value below.001. The researcher performed normality tests again after excluding those 13 cases, albeit no significant improvement in the normality of the data was examined. This is a common issue in social sciences, generally resolved by not reporting data on normality but on a quasi-normality with skewness and kurtosis scores ranging from +1.5 to -1.5. In this study, the skewness and kurtosis scores for all the indicators were within the criterion of quasi-normal distribution. Therefore, no question was eliminated, and the remaining tests were performed with the same data set of 596 cases.

5.4.2 Common Method Bias (CMB)

Previous research indicated that CMB is a common issue in social sciences research. The CMB might exist in the data when it is collected from a single source simultaneously and may object to the research findings. The CMB may affect the measurement error in the data analysis. The validity of the research depends on the measurement error, so both are interconnected. Thus, if the measurement error has a problem, it will ultimately affect the validity of the results. The CMB varies across the research context and overcomes these issues to assess the research settings and identify potential sources of bias. According to Hair et al. (2006), there is no specific solution to reducing the method bias so the researchers can evaluate the potential biasing effects. The CMB is primarily an issue of survey research where data was collected at the micro level and from a single source. In this research, the researcher used the following procedural and statistical remedies to

evaluate the presence of CMB in the data set.

5.2.1.1 Procedural remedies

In this research, the researcher used the following procedural remedy, recommended by (Tabachnick & Fidell, 2007b), to overcome the CMB issue in the data.

5.2.1.2 Confidentiality

According to Tabachnick and Fidell (2007), assurance of confidentiality of the responses/respondents is one of the ethical duties of researchers. In this research, each questionnaire contained a cover letter explaining the research's aim and assuring the study participants' full anonymity. Moreover, the cover letter stated that there were no right or wrong questions and that participants' answers would not be tied to their personalities or shared with anyone. Research suggested that confidentiality of the responses/respondents can help overcome the likelihood of CMB effect(s) (Podsakoff et. el., 2003).

5.2.1.3 Statistical remedies

Besides confidentiality, Podsakoff et al. (2003) also asserted the following two statistical techniques to ensure that the CMB issue is non-existent or minimal in the data set. This will help improve the overall results and credibility.

5.2.1.4 Herman single factor test

This test shows that there will be effects of CWB when a single component accounts for 40% or more of the total variance. To evaluate the CMB, the researcher used EFA in SPSS to determine the presence or absence of Herman Single in the data, and all items were loaded on a single factor. The results indicated that a single-factor solution explained only

25.2% of the total variance (see Table 4 in Appendix A). Therefore, the results prove that there is no CMB issue in this research work/analysis.

5.6 Results

5.6.1 Demographic Analysis

The data set used in this research contains 610 valid responses, where the author excluded 14 cases for multiple outliers. Finally, a sample (n= 596) was used for the final data analysis. In accordance with the research requirement (see Chapter 4), which requires a sample size to be at least 385 based on (Saunders et al., (2009). The results indicate that the research has accomplished the required level of the sample. Table 5.4 illustrates the demographic information of the participants. According to the demographic information, 79.7% of the respondents were female customers, and 25.5 % were male customers. In our sample, most of the participants are female customers; one reason for more female participants than men is that Saudi women prefer online shopping to shopping from malls. The results in Table 5.4 also reveal that 49% of the respondents having aged between 18-35 years, 29.7% of the participants were between 36-50 years and 21.3% were above 50 years. From the qualification point of view, 12.6% of the respondents have high school level education, about 59.6% of the participants have a bachelor's degree, 17.6 % have a master's qualification, and 10.2% are Ph.D. qualified. As per the history and usage experience of social commerce, the results show that the most significant respondents were customers with 1-3 years of experience.

Table 5. 4: Demographic details of the respondents

	Group	Frequency	Percentage
Gender	Male	121	20.3
	Female	475	79.7
	Total	596	100
	Group	Frequency	Percentage
Age	18-35	292	49.0
	36-50	177	29.7
	Above 50	127	21.3
	Total	596	100
	Group	Frequency	Percentage
Education	High school	75	12.6
	Bachelor's degree	355	59.6
	Master's degree	105	17.6
	Ph.D. degree	61	10.2
	Total	596	100
	Group	Frequency	Percentage
Experience in online shopping using SNS	Less than 1 year	162	27.2
	2-3 years	366	62.4
	4-6 years	68	11.4
	More than 06 years	0	0
	Total	596	100

5.6.2 Measurement model

In this stage of data analysis, the author followed a two-step approach, suggested by (Hair et al., 2006). The first step is to analyze the validity of the measurement, while the second is to analyze the structural regression model to test the proposed hypotheses. In this regard, CFA is important to assess the validity and reliability of the constructs. CFA is commonly

used in social science research for testing 'measures of the construct' and whether it is consistent with the nature of that construct (Tabachnick & Fidell, 2007a). This research employed Smart-PLS 4.0 for CFA and SEM. According to Bentler and Chou (1987), Smart-PLS 4.0 is a powerful statistical tool that is used for conducting CFA. Smart-PLS is the latest technique in social science research to estimate the measurement and structural model (Anderson & Gerbing, 1988). Therefore, this research used Smart-PLS to examine the measurement models values such as composite reliability and average variance extracted. Kline (2011) and Nachtigall et al. (2003) suggested that Smart-PLS is assumed to deal with the formative measures in a better way and is considered "as a milestone in the latent variable modeling."

In this study, the researcher evaluates convergence and discriminant validity. The researcher also performs second-order CFA the measure the psychometric properties of SCCs using three dimensions (recommendations and referrals, ratings and reviews, and forums and communities). CFA helps to measure the psychometric properties (convergent and discriminant), the average variance extracted (AVE), and the composite reliability (CR) of all constructs (González et al., 2008). The acceptable thresholds for all values were met (see Table 5.5), as CR was more significant than 0.70 for all constructs (Barnes, 2011), and the AVE for all variables was above 0.50 (Ringle et al., 2005). The results in Table 5.5 show that Cronbach alpha and CR scores and greater than 0.70, and AVE is above 0.50; therefore, the results indicate acceptable reliability and convergent validity. This research followed two approaches to assess the discriminant validity of the constructs.

Table 5.5: Factor Loading Values for All Construct Variables

Constructs	Cronbach alpha	CR	AVE
Performance Expectancy (PE)	.79	.863	.613
Effort Expectancy (EE)	.70	.807	.512
Social Influence (SI)	.72	.841	.638
Facilitating conditions (FC)	.74	.851	.656
Hedonic motivation (HM)	.72	.765	.537
Habit (HT)	.74	.836	.562
Price Valve (PV)	.75	.854	.663
Purchase Intention (PI)	.76	.860	.673
Recommendations & Referrals (RR)	.72	.824	.540
Rating & Reviews (RAR)	.79	.862	.611
Forums & Communities (FCOM)	.71	.825	.610
User trust	.83	.882	.653

First, discriminant validity was assessed at the construct level. In this approach, the square root of AVE is compared with the correlation scores of other constructs. Table 5.6 shows that the square root AVE of all constructs is greater than the correlation between each construct. For discriminant validity, the square root of the AVE for each construct should be greater than that of the other constructs (Fornell & Larcker, 1981). Second, this research analyzed the items' cross-loadings (see Table 1R in Appendix IV for detail) and exhibited the item loadings of all the constructs. The findings show that all of the item factor loadings of the associated variables are greater than the cross-loading values of other latent variables. Hence, the findings show acceptable discriminant validity.

Table 5. 6: Discriminant validity results

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. PE	**.783**												
2. EE	.579	**.716**											
3. SI	.570	.422	**.799**										
4. FC	.437	.604	.352	**.810**									
5. HM	.053	.044	-.020	.018	**.733**								
6. PV	.460	.275	.322	.344	.035	**.814**							
7. HT	.454	.518	.355	.604	-.009	.252	**.750**						
8. PI	.678	.419	.419	.553	.056	.555	.528	**.821**					
9. FCOM	.447	.636	.341	.829	.036	.312	.662	.544	**.782**				
10. RAR	.638	.406	.400	.445	.011	.450	.473	.691	.453	**.781**			
11. RR	.327	.399	.290	.601	.026	.480	.511	.385	.502	.347	**.735**		
12. TR	.425	.258	.396	.394	.034	.343	.500	.504	.303	.442	.351	**.808**	
13. UBEH	.439	.367	.431	.465	.059	.312	.467	.534	.474	.416	.332	.613	**1.00**

5.6.3 Descriptive statistics and correlations analysis

Descriptive statistics and correlations are essential in social science research analysis.
Descriptive statistics represent the data's essential feature, and correlation shows the
degree of relationship among the study constructs. Table 5.7 shows the results of
descriptive statistics and correlation among all the variables.

Table 5. 7: Descriptive statistics and correlations

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender	n.a	n.a																
2. Age	n.a	n.a	.027															
3. Education	n.a	n.a	-.056	.198*														
4. Experience	n.a	n.a	-.043	.173*	-.028													
5. PE	3.64	.76	-.017	-.058	-.012	-.060												
6. EE	3.26	.69	-.073	-.070	-.047	-.113	.579**											
7. SI	3.40	.87	-.067	-.079	-.037	-.035	.570**	.422**										
8. FC	3.56	.79	-.026	-.039	-.006	-.180	.437**	.604**	.352**									
9. HM	3.59	.83	-.017	-.095	-.034	-.042	.053	.044	-.020	.018								
10. PV	3.57	.82	-.017	-.024	-.012	.004	.460**	.275**	.322**	.344**	.035							
11. HT	3.65	.77	-.054	-.095	-.048	-.096	.454**	.518**	.355**	.604**	-.009	.252**						
12. PI	3.67	.77	-.008	-.017	-.025	-.073	.678**	.419**	.419**	.553**	.056	.555**	.528**					
13. FCOM	3.30	.70	-.032	-.068	-.041	-.135*	.447**	.636**	.341**	.829**	.036	.312**	.662**	.544**				
14. RAR	3.65	.75	.006	.024	.001	-.069	.638**	.406**	.400**	.445**	.011	.450**	.473**	.691**	.453**			
15. RR	3.45	.77	.000	-.047	-.033	-.076	.327**	.399**	.290**	.601**	.026	.480**	.511**	.385**	.502**	.347**		
16. TR	3.59	.71	-.001	-.048	-.083	-.032	.425**	.258**	.396**	.394**	.034	.343**	.500**	.504**	.303**	.442**	.351**	
17. UBEH	3.73	1.00	.052	-.082	-.052	-.060	.439**	.367**	.431**	.465**	.059	.312**	.467**	.534**	.474**	.416**	.332**	.613**

Note N = 596, PE=Performance expectancy; EE= Effort expectancy, SI= Social influence; Facilitating conditions; HM= Hedonic Motivation; PV= Price Value; HT= Habit; RR= Rating and reviews; FCOM; Forums and communities; RAR; recommendations and referrals, **p <.01, * p < .05

The correlation values range between -1.00 to +1.00. The correlation values only represent the association of the constructs. If the relationship between the constructs has r = zero, it means that no association exists between the variables. The extremely positive and negative ends correlation is considered highly correlated, whether positive or negative. A high correlation means that a relationship between two variables is very strong. A high positive correlation is indicated when the values between the two constructs are close to one. Similarly, the high negative association represents the value of the relationship between two constructs close to the minus one. Moreover, if the correlation value between the constructs is near r = 0, it means weak correlations.

The correlation analysis has no independent and dependent constructs because correlation only deals with the association, not a causal effect. The most authenticated technique to measure the correlation is Pearson's correlation (Tabachnick & Fidell, 2007). Previous literature also confirmed and verified the correlation analysis using Pearson's correlation analysis (Chan et al., 2006; Gupta, 2011; Hair et al., 2012; Lee et al., 2012; Pearson, 1922; Tabachnick & Fidell, 2007). The results show that the study's main variables moderately correlate with customer purchase intention and social commerce use behavior.

5.7 Hypotheses Testing

To answer the research questions and address the hypotheses the researcher tested the relationship between study variables after establishing the proper reliability and validity in the measurement model. The researcher used structural equation modeling based on partial least squares (PLS) through Smart-PLS 4.0 software to answer the research questions and address the hypothesized relationship among variables. The study's proposed hypotheses were tested based on examining standardized paths. The path

significance of proposed relations was calculated through the bootstrap resampling technique (Chaniotakis & Lymperopoulos, 2009; Pugliese & Okun, 2014), with 5000 resampling iterations. Research question 1a asked if there any effect of UTUAT2 factors on Saudi customers' PI. The results in Table 5.8 show that PE (β = 0.494, p <.01), FC (β = 0.182, p <.01), PV (β = 0.188, p <.05), HT (β = 0.114, p <.05), trust (β = 0.120, p <.01) and SCC (β = 0.146, p <.01) have positive and significant effects on customer purchase intention using social commerce platforms, thus confirming hypotheses H1, H4a, H6, H7a, H8, and H10 (for detail see table 5.8). The result did not find significant EE, SI, and HM effects on purchase intention, so hypotheses H2, H3, and H5 were not supported. This research also shows that SCC (β = 0.464, p <.01) is positively and significantly related to user-PI, supporting hypothesis H9. The model shows that 68.5% of the variance exists in PI. Research question 1b stated that UTUAT 2 factors FC, habit and PI influence Saudi customers' social commerce use behavior. The results also reveal that FC (β = 0.153, p <.01), HT (β = 0.195, p <.01), and PI (β = 0.345, p <.01) are positively related to participants' social commerce usage behavior towards online shopping, therefore supporting hypotheses H4b, H7b, and H11. The model indicated that there is a 34.8% variance exists in usage behavior.

Table 5. 8: Structural regression model results

Path	Path Coefficient	t-value	R^2	Results
H1: PE---> PI	0.494	9.434		Supported
H2: EE---> PI	-0.192	-4.251		Not Supported
H3: SI---> PI	-0.055	-0.035		Not Supported
H4a: FC---> PI	0.182	3.778		Supported
H5: HM---> PI	0.001	0.030		Not Supported
H6: PV---> PI	0.188	4.957		Supported
H7: HT ---> PI	0.114	3.325		Supported
H8: SCC---> PI	0.146	2.072		Supported
H9: SCC ---> trust	0.464	11.129		Supported
H10: Trust---> PI	0.120	3.694	68.5%	Supported
H4b: FC---> UB	0.153	3.347		Supported
H7b: HT---> UB	0.195	4.316		Supported
H11: PI---> UB	0.345	7.901	34.8%	Supported

5.7.1 Moderating role of customer gender

The research question RQ3 asked that are the demographic factors of Saudi customers have any moderating effect on FC, HM, PV, habit, and PI relationships. Results in Table 5.9 indicate significant differences between male and female customers. The results suggested that for female users, FC, HT, PV, and habit are stronger predictors of customer purchase intention and use behavior towards online shopping through social commerce platforms; thus, hypothesis 12 was partially supported.

Figure 5.1: Research Model with results
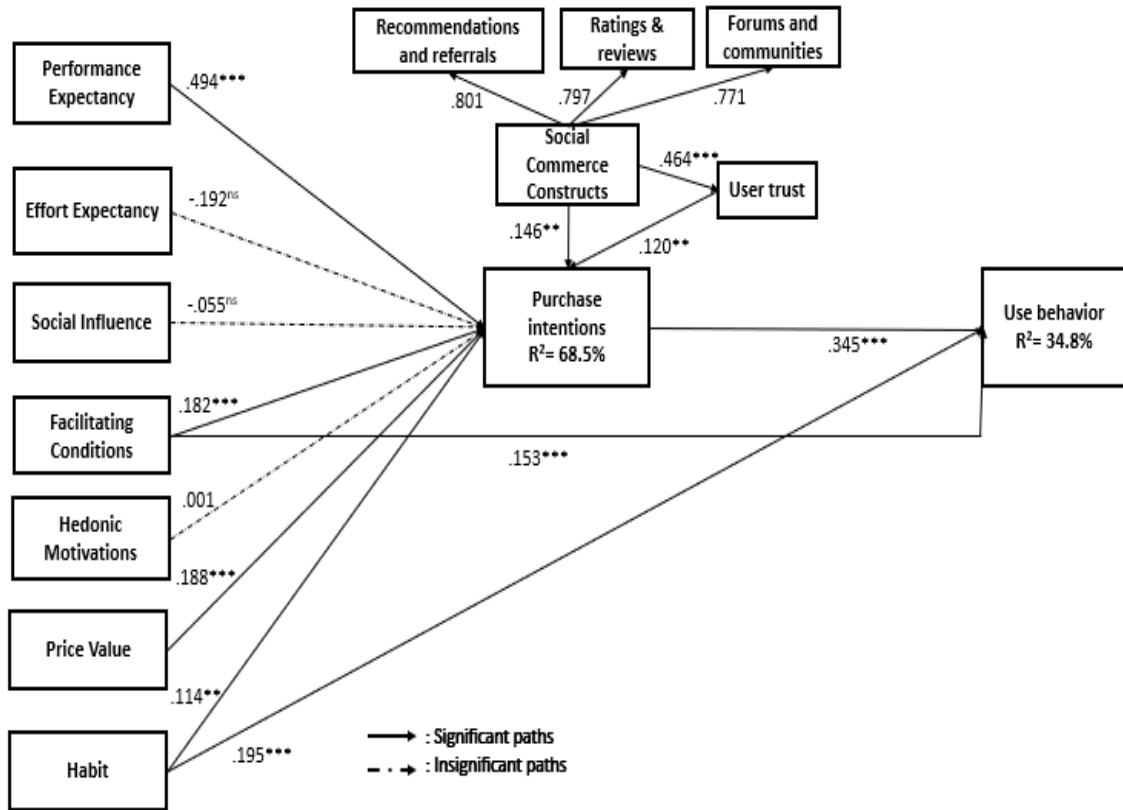
Table 5. 9: Model path coefficient values across male and female

Hypotheses	Group 1 (male users) n=121, Path (t-value)	Group 2 (female users) n=475, Path (t-value)
H12a: FC---->PI	0.078 (0.773) ns	0.217 (3.871) **
H12b: HM---->PI	0.065 (1.305) ns	-0.010 (0.305) ns
H12c: PV---->PI	0.121 (2.039) *	0.235 (5.491) **
H12d: HT---->PI	0.121 (1.373) ns	0.117 (2.282) *
H12e: HT---->UB	0.383 (3.173) **	0.115 (3.219) *

5.7.2 Moderating role of customer Age

This research also tested the multigroup SEM models to examine the coefficients across

three different age groups of social commerce users. Our results (see Table 5.10) reveal

that the path coefficients for group 1 (aged 18 to 35 years) are stronger, followed by group 2 (aged 36 to 50 years) and group 3 (aged above 50 years). In particular, the analysis of this study shows that FC, PV, and habit are stronger predictors of younger (group 1) social commerce users than older users; hence, hypothesis 13 was partially supported by the results of this research.

Table 5. 10: Model path coefficient values and multi-group analysis - moderating effect of the consumer age

Hypotheses	Age group 1 (18-35) set n= 292, Path (t -value)	Group 2 (36-50 years) n=189, Path (t-value)	Group 3 (above 50 years) n=127, Path (t-value)	
H13a:FC---->PI	0.215 (3.268) **	0.181 (2.520) **	0.150 (1.290) ns	
H13b:HM---->PI	0.005 (0.123) ns	0.075 (1.543) ns	0.018 (0.321) ns	
H13c:PV---->PI	0.233 (4.221) **	0.095 (1.605) ns	0.235 (2.777) *	
H13d:HT---->PI	0.116 (2.511) *	0.105 (1.384) ns	0.162 (2.123) ns	
H13e:HT---->UB	0.262 (3.329) **	0.370 (4.896) **	0.051 (0.520) ns	

5.7.3 Moderating role of use experience

This research also examined the multigroup SEM models to assess the coefficients across three different groups of Saudi social commerce users concerning the use experience. The findings (see Table 5.11) show that the path coefficients for group 2 (2 to 3 years of use experience) are stronger, followed by group 1 (less than 1-year use experience) and group 3 (4-6 years of use experience). Moreover, the results suggest that FC, PV, and habit are stronger predictors of purchase intention and use behavior for participants having moderate social commerce use experience (2-3 years) than low and high experience; therefore, hypotheses 14 and 15 were partially supported.

Table 5. 11: Model path coefficient values across different levels of use experience of SNS

Hypotheses	Group 1 (less than 1 years use experience) set n= 131, Path (t -value)		Group 2 (2-3 years of use experience) n=366, Path (t-value)	Group 3 (4-6 years of use experience) n=68, Path (t-value)
H14a:FC---->PI	0.234 (2.272) *		0.118 (1.982) ns	0.160 (1.005) ns
H14b:PV---->PI	0.109 (1.625) ns		0.186 (3.662) **	0.398 (2.202) ns
H14c:HT---->PI	0.218 (3.896) **		0.039 (0.831) ns	0.296 (2.778) *
H14d:HT---->UB	0.252 (3.297) **		0.218 (3.640) **	0.079 (0.450) ns
H15:PI---->UB	0.135 (1.629) *		0.413 (7.089) **	0.480 (2.714) *

5.8 Chapter Summary

All the proposed relationships in the present research framework were analyzed using Smart-PLS using rigorous data analysis. The researcher conducted CFA to examine all the contracts' reliability and validity. After the satisfactory results of the measurement model, the researcher analyzed all the hypothesized relationships using structural regression modeling in Smart-PLS 4.0. The results suggested that the hypotheses H1, H4a & b, H6, H7a & b, H8, H9, H10, and H11 was fully supported. The results also show that hypotheses H2 (EE ---> PI), H3 (SI ---> PI), and H5 (HM ---> PI) were not supported. Moreover, this study examined the moderating effects of customer gender, age, and experience on Saudi customers' purchase intention and use behavior of social commerce. The results indicate that hypotheses 12, 13, 14, and 15 were partially supported.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.1 Overview

The proceeding chapter detailed the data analysis and illustrated the rigorous statistical analysis details. The previous chapter also assessed potential antecedents of Saudi customers' purchase intention and use behavior. To do this, this study used CFA to analyze the reliability and validity of the constructs. Moreover, the SEM was used to examine the constructs of UTAUT2 (PE, EE, SI, FC, HT, PV, and HM), SCC (reviews and ratings, recommendations and referrals, and forums and communities), and user trust along with the customer gender, age experience are the moderators. The present chapter details the explanation and justification of the findings that were observed in the preceding chapter and alignment with the research questions and objectives discussed in chapter one. Section one of the first chapter discusses the primary constructs of how the predictors (UTUAT2, SCC, and trust) influence the PI and use behavior of the social commerce of online shoppers in Saudi Arabia. The second section details how individual differences such as customer gender, age, and experience moderate the effects of FC, HM, PV, and HT on customers' PI and use behavior towards social commerce. The third section features the conclusions with a particular emphasis on theoretical implications, practical implications, and methodological contributions. The fourth section describes the limitations of this research. This chapter's final section concludes with elaborating on some directions for future researchers.

Before drawing the study's main conclusions, a review of the connections between the research questions and hypotheses is crucial. The research questions and hypotheses discussed in this thesis are reviewed in Table 6.1.

Table 6.1: Research questions, hypotheses, and summary of findings

Factors	Hypotheses	Hypotheses	Findings of this research
Performance expectancy	RQ1a	H1	Performance expectancy positively influence purchase intentions.
Effort expectancy	RQ1a	H2	Effort expectancy is not significantly related to purchase intentions.
Social influence	RQ1a	H3	Social influence is not significantly related to purchase intentions.
Facilitating conditions	RQ1a &1b	H4a & H4b	Facilitating conditions are positively influenced to purchase intentions.
Hedonic motivation	RQ1a	H5	Hedonic motivation is positively related to purchase intentions.
Price value	RQ1a	H6	Price value is positively related to purchase intentions.
Habit	RQ1a &1b	H7a & H7b	Habit is positively related to purchase intentions and use behavior.
Social commerce constructs	RQ2	H8 & H9	SCC are positively related to user trust and purchase intentions.
User trust	RQ2a	H10	User trust is positively related to purchase intentions.
Purchase intentions	RQ1b	H11	Purchase intentions are positively related use behavior of social commerce.
Moderating role of customer gender, age and use experience	RQ3	H12a – H12e, H13a–H13e, and H14a–H14d	Customer gender, age and use experience moderates the effects of FC, HM, PV, and HT on customer purchase intentions.

6.1 Discussion on main predictors

The results from data analysis validated the proposed research framework based on the UTAUT2, SCC, user trust, and customers' individual differences (gender, age, and

experience) as moderators. The preceding chapter provides detailed findings for the constructs associations used in this research. As stated in Chapter 3, the study anticipated 16 hypotheses with 23 paths examined through different analytical techniques such as correlation CFA and SEM. The key aim of this research was to study the possible predictors of Saudi customers' adoption of online shopping through social commerce platforms. The propositions were, thus, segregated into several relationships so that the influence of numerous constructs could be clearly explained. A summary of the main results has been presented in Table 5.7 for all the proposed hypotheses supported or unsupported by the study results. The findings of this research indicated that 13 out of 16 paths (hypotheses) were supported. Using the variables from UTAUT2, SCC, user trust, and individual differences (gender, age, and education) as moderators and examining the validation of constructs used in this research in a non-Western context evidenced that the explanatory power of the overall model within PI explains (R^2=68.5%) the accepted level of variance and (R^2=34.8%) in use behavior computed through Smart PLS 4.0 software. Other studies have reported such results incorporating SCC, user trust, and individual differences as moderators in non-Western contexts (Chang & Liu, 2009; Henseler et al., 2009). Correspondingly, a similar score of R^2 has been reported by earlier studies conducted in social sciences, for instance, 35% by (Andijani & Kang, 2022; Henseler et al., 2009). These findings are also coherent with the results of (Holmes-Smith et al., 2006; Sheikh et al., 2017).

6.1.1 Performance expectancy towards purchase intentions (PE→PI)

This research shows that PE positively and significantly predicts customers' PI through social commerce platforms (β= 0.494; p<.001). This hypothesis was proposed in Chapter

3 by stating that PE is positively related to PI. The results indicate that the higher the PE, the higher the level of purchase intention through social commerce platforms. It was also determined to have a positive and significant influence of PE on PI in the study conducted by Kline (2011) in the context of online shopping through social commerce. Prior studies have validated the positive relationship between PE and customer PI in different contexts (Andijani & Kang, 2022; Sheikh et al., 2017). Customers in Saudi Arabia consider that online shopping will enhance their performance in terms of saving time and money in case of visiting physical stores; therefore, the association is positive with the purchase intention. One of the possible reasons for this positive relationship is that when the expected level of performance is achieved, it will improve the intention for future transactions. Whether acting individually or in corporate sectors, customers can benefit from online shopping in terms of better performance than shopping traditionally from physical stores. Hence, this research answered the RQ (proposed in Chapter 1) that PE positively affects Saudi customers' PI.

6.1.2 Efforts expectancy towards purchase intention (EE→PI)

In this study, in the second hypothesis, the researcher stated that EE positively and significantly influences customers' PI toward online shopping through social commerce platforms. The researcher argued that users of any technology seek to improve and refine the technology to reduce their efforts. The findings of this research were not supported the anticipated proposition and are not consistent with prior studies (Venkatesh et al., 2003; Venkatesh et al., 2012a, 2012b). However, the results are consistent with the findings of (Khan et al., 2017; Sheikh et al., 2017; Andijani and Kang, 2022), who reported an insignificant relationship between EE and PI. One possible reason for these results is that

Saudi Arabian customers are culturally short-term oriented and might seek perceived easiness rather than permanent easiness in the short term. Another reason for this opposite relationship is that buyers may not consider ease of use when determining whether or not to buy a product or service through social commerce platforms. They may also consider other factors such as price, product quality, and brand reputation while making purchase decisions.

6.1.3 Social Influence towards purchase intention (SI→PI)

The concept of SI is primarily hypothesized to positively influence customers' PI towards online shopping through social commerce. According to previous studies (e.g., Khan et al., 2017; Sheikh et al., 2017), SI has been positively related to PI towards online shopping. The present research found that SI does not significantly influence customers' PI in the Saudi context. These results align with the various previous studies on online shopping through social commerce and other contexts (Al-Qeisi, 2009; Andijani & Kang, 2022; Venkatesh et al., 2003; Venkatesh et al., 2012b). One possible explanation for these insignificant findings may be the social influence, which may be unrelated to the product or service under consideration. For instance, an influencer advertising a health supplement may be ineffective if they are not viewed as reputable in health and wellness. Furthermore, certain product features, such as the amount of engagement required in the buying decision, might also impact the link between SI and PI. For example, SI may be less important for low-involvement items since customers may not need much effort to select the desired products.

6.1.4 Facilitating conditions towards purchase intention and use behavior (FC→PI) and (FC→ use behavior)

In hypotheses H4a and H4b, the researcher stated that FC is positively and significantly related to customers' PI and usage behavior towards online shopping through social commerce platforms. The FC is crucial for customers to access and use social commerce platforms precisely and conveniently for their online shopping. The present research proposed that FC positively influences customers' purchase intention and use behavior toward online shopping through social commerce platforms. This research supported that FC positively influences customers' purchase intention (β=.182; p<.001). These results are consistent with previous research (Ramírez-Correa et al., 2019), which reported a positive relationship between FC and PI. Thus, this research also found a positive and significant effect of FC on customers' use behavior (β=.153; p<.001) of social commerce platforms for online shopping. Previous studies also reported this positive relationship between FC and use behavior (Andijani & Kang, 2022; Khan et al., 2019; Khan et al., 2022; Van Droogenbroeck & Van Hove, 2021). One possible reason for FC's positive effect on PI and social commerce use behavior is that when individuals believe that the required resources (such as time, money, and information) to support a purchase behavior are accessible, they are more likely to decide to make a purchase. For example, if a person has the requisite financial means to acquire products, they are more likely to intend to purchase that product. Another reason is that FC, such as the ease of use of the social commerce platform, can make shopping more convenient and effective. Individuals may be more inclined to utilize a social commerce platform for online shopping if it is user-friendly and simple to use.

6.1.5 Hedonic motivation towards purchase intention (HM➔PI)

In hypothesis H5 the researcher stated that HM positively relates to PI. The HM construct highlights the fun and enjoyment characteristic of using any technology or online system, and it was an extension of UTUAT, which makes it UTUAT2. This research does not support the hypothesized positive relationship between HM and customers' PI. These results are consistent with the findings of previously published studies (Khan et al., 2022; Sheikh et al., 2017; Venkatesh et al., 2012a). Moreover, HM also influences other variables, such as easiness of use (Merhi et al., 2019). The possible explanation for the insignificant influence of HM on customers' purchase intention in the Saudi context is that the link between HM and PI may vary depending on the product's environment. The hedonic drive may be more significant for certain items, such as luxury goods or experience products, than for others.

6.1.6 Habit and purchase intention (HT➔PI)

The UTAUT2 framework also contains habit as an additional factor affecting customer PI. This study proposed that habit positively influences PI and use behavior toward online shopping through social commerce. According to Gupta et al. (2022), the construct habit signifies the involuntary actions of people because of their learning or prior experience. This research indicates that habit is positively and significantly related to customer PI (β= .114; p<.05) towards online shopping through social commerce platforms. The results also indicate that habit significantly predicts customer use behavior (β= .195; p<.001) of social commerce for online shopping. It influences customers' intentions and use behavior toward using social commerce for online shopping. Previous studies also reported the positive relationship between habit, purchase intention, and use behavior within different

contexts (Ayeh et al., 2013; Limayem et al., 2007; Venkatesh et al., 2012b; Khan et al., 2017). One possible explanation of the positive influence of habit on customers' PI and use behavior towards the use of social commerce is that online shopping may save customers time and effort compared to conventional shopping. Consumers may habitually buy online as they grow acclimated to the ease. Once consumers have acquired a habit of online shopping, they may feel more at ease and familiar with it. This sense of trust and familiarity can significantly affect their PI and online shopping behavior.

6.1.7 Price Value and purchase intention (PV→PI)

This study stated that PV positively relates to purchasing intentions towards adopting online shopping technology. According to the individual level of analysis, it is required to examine the PV because the customers must pay for the virtual services for online shopping through social commerce websites. This research shows that PV positively and significantly predicts customers' PI and trust (β= .188; p<.001). Moreover, this research highlights the importance of PV in the framework, implying that customers may consider PV while adopting online technology while shopping through social commerce platforms. These findings are contrary to previous studies (Andijani & Kang, 2022; Khan et al., 2017) research but are consistent with the findings of other studies, such as those (Anitha & Krishnan, 2022; Araújo Vila et al., 2021; Khan et al., 2022; Khan, Hameed, & Khan, 2017; Merhi et al., 2019; Venkatesh et al., 2012a). The possible explanation for this finding is that consumers may frequently equate greater costs with higher quality and hence consider higher-priced goods to be of higher quality. As a result, people may be more prepared to pay greater costs for things because they think they are more valuable. Furthermore, consumers may also perceive higher-priced goods to be more valuable, even if the actual

cost of manufacture is not considerably greater. Thus, consumers' PI may be influenced by their sense of value, as they may be prepared to pay higher for products they perceive to have a better value.

6.1.8 Social commerce constructs and user trust (SCC→ user trust)

This research hypothesized that SCC (reviews and ratings, recommendations and referrals, and forums and communities) were positively related to user trust towards social commerce for online shopping. This research indicates that SCC positively influences user trust (β= .464; p<.001) towards adopting technology for shopping through social commerce. These results are consistent with previous studies (Andijani & Kang, 2022; Farzin et al., 2021; Hajli et al., 2013; Lee et al., 2019; Sheikh et al., 2019a; Soodan & Rana, 2020). These findings indicate that customers are frequently influenced by their social networks, particularly when making purchase decisions. When they see their friends or other trusted persons on social media expressing great experiences with a certain product, they are more likely to trust that product themselves. Moreover, social media networks offer much information about online businesses, including user reviews, ratings, and recommendations. When customers gain access to this information, they are better positioned to make educated purchase decisions, which may increase their trust.

6.1.9 Social commerce constructs and purchase intentions (SCC→PI)

As the researcher hypothesized (H8), the SCC positively influences customer PI through social commerce platforms. The researcher proposed that people may feel comfortable while purchasing and relies on the recommendation available socially by the existing purchasers. This research suggests that SCCs are positively and significantly related to customers' PI (β= .146; p<.001). These results are consistent with previous studies (e.g.,

Al-Kubaisi & Abu-Shanab, 2022; Al-Tit et al., 2020; Hajli, 2015; Li, 2019; Riaz et al., 2021; Sheikh et al., 2019a) who also reported a positive relationship between SCC and PI. The possible explanation for this positive relationship is that users of social media sites can post product and service information such as product reviews, ratings, and recommendations. Because consumers read about the experiences and views of others before making a purchase choice, this information sharing can help lower the perceived risk associated with acquiring a product or service.

6.1.10 User trust and purchase intentions (user trust → PI)

In hypothesis H10, the researcher proposed that user trust is positively related to PI. In this research, the researcher argued that user trust is equally important in building a soft and positive image of technology in the view of customers and sellers. They can use it for business transactions. This research shows that user trust is positively and significantly related to customer PI (β= .120; p<.001). Prior research has also examined this relationship and reported that user trust is positively related to PI (Andijani & Kang, 2022; Liu et al., 2019; Sheikh et al., 2019b; Yusuf & Busalim, 2018; Zhu et al., 2011). This finding illustrates that when customers trust a product, they believe the risk of purchasing is smaller. As a result, people are more inclined to buy since they have more confidence that the product will satisfy their expectations.

6.1.10 Purchase intentions and use behavior (PI→UB)

In hypothesis H11, the researcher hypothesized that PI positively relates to the use behavior of social commerce for online shopping. Several technology acceptance studies validated this positive relationship between PI and actual usage behavior (Khwaja et al., 2020; Lăzăroiu et al., 2020; Lim et al., 2016; Peña-García et al., 2020; Van der Heijden et

al., 2003; Venkatesh et al., 2003). The findings of this study illustrate that customer PI positively and significantly influences usage behavior (purchase intention→ use behavior β= .345; p<.001). The possible explanation for this positive relationship is that PI represents a person's willingness and desire to purchase. When a person's buying intentions match their online shopping behavior, it suggests consistency in their behaviors and intents. This consistency can result in a positive and reinforcing behavior loop, with the individual more inclined to use online purchasing platforms in the future.

6.2 Discussion on moderating results

Based on individual differences literature (Hanif et al., 2021), this research examines the moderating effect of customers' gender, age, and experience on purchase intention relationships. Because the individual's gender, age, and experience with technology adoption for online shopping are considered critical demographic factors in consumer research (Andijani & Kang, 2022). Therefore, consumers with varying gender, age, and experience profiles are expected to uncover different psychological and behavioral attributes towards a specific product or service, which in turn influence their consumer use behavior (Khan et al., 2019) and Sojka and Giese (2003) suggested that customers' requirements and reactions differ during their life span. Thus, this research attempted to increase the understanding of the influence of customers' individual differences on purchase intention and use behavior towards social commerce for online shopping. Several studies (e.g., Ismagilova et al., 2019; Sankaran & Chakraborty, 2021; Sojka & Giese, 2003) in the field of technology acceptance emphasized the need of analyzing the influence of individual differences on purchase intention and use behavior. That is, the

researcher believes that customers with different gender, age and experience have different requirements and preferences towards technology adoption for online shopping.

6.2.1 Gender as a Moderator

In hypothesis, H12, the researcher anticipated that customers' gender moderates the effects of FC, HM, PV, and HT on purchase intention. The individual differences literature prescribed that customers' gender influences their intentions toward technology adoption. This research indicates a significant difference between male and female customers toward technology adoption. The results illustrate that for female customers, FC, HM, PV, and habit are stronger predictors of their purchase intention and use behavior towards online shopping through social commerce platforms; therefore, hypotheses H12a, H12c, H12d, and H12e were approved. For male customers, only PV is a significant predictor of their purchase intention, hypothesis H12c was approved, and habit significantly predicts their use behavior towards the use of an social commerce platform for online shopping, hypothesis H12e was approved. These results are consistent with previous studies (e.g., Abbasi et al., 2015; Andijani & Kang, 2022; Baptista & Oliveira, 2015; Khan et al., 2017). These results illustrate that certain products may be seen as more acceptable or appealing to women over men because of their traits or attributes. For example, women's clothes may be sold as more colorful and feminine, while men's clothing may be advertised as more rough and useful; therefore, online businesses can use gender in customer segmentation in their experiential marketing strategies (Merhi et al., 2019).

6.2.2 Age as a Moderator

In hypothesis, H13, the researcher anticipated that customer age moderates the influence of FC, HM, PV, and HT on PI and use behavior. The present research uses age as a

moderating variable to test whether it affects the PI and use behavior towards social commerce for online shopping of Saudi customers. Because a customer's age is considered an essential demographic variable in consumer research (Rather & Hollebeek, 2021). Therefore, customers' varying age profiles are anticipated to discover different psychological and behavioral characteristics of a given product or service, affecting their behavior (Venkatesh et al., 2003). Previous research indicates that customer requirements and reactions differ during their lifespan (Schirmer et al., 2018). The multi-group analysis of the moderating role of age in this research reveals that the effects of FC, HM, PV, and HT significantly differ across three age groups, group 1 (18-25 years), group 2 (36-50 years), and group 3 (above 50 years). The results of this research show the corresponding differences among customer age groups. Hypotheses H12a, H12c, H12d, and H12e were therefore supported for group 1, while in group 2, H12a, H12b, and H12e were supported, and for group 3, only H12c and H12d were supported. Hence, the paths from FC, HM, PV, and HT to purchase intention and use behavior were found to be different across three age groups of Saudi customers. These results are consistent with previous studies (Ismagilova et al., 2019; Khan, Hameed, & Khan, 2017; Sankaran & Chakraborty, 2021) who reported that the influence of UTUAT2 factors on PI and use behavior towards online technology for shopping through social commerce platforms differ according to customers' age profiles. These findings demonstrate that age possesses several life phases, including youth, midlife, and old age. Each stage of life may be connected with distinct needs and priorities, which might impact purchasing decisions. For instance, younger customers could be more interested in technology and fashion, whereas elderly consumers might be more interested in health and wellness products.

6.2.3 Experience as a moderator

As the researcher hypothesized in hypothesis H14, use experience moderates the influence of FC, PV, and HT on purchase intention and use behavior. The Previous studies (e.g., Andijani & Kang, 2022; Merhi et al., 2019) also investigated the moderating effect of use experience on customer purchase intention and use behavior. The results of this research show that the effects of FC, PV, and HT on purchase intention significantly differ across different levels of use experience, such as for group 1 (less than one year), group 2 (1-3 years of use experience), and group 3 (4-6 years of use experience). These results show that FC and HT significantly predict PI and HT and PI significantly predict use behavior; thus, hypotheses H14a, H14c, H14d, and H15 were approved for group 1. For group 2, only FC predicts PI and HT, and PI significantly predicts use behavior; therefore, hypotheses H14a, H14d, and H15 were approved for group 2. Moreover, for group 3, only HT significantly predicts PI, and PI predicts use behavior, so hypotheses 14c and H15 were approved for group 3. The findings explain that customers' satisfaction with a product might be influenced by their use experience. If a customer has a pleasant experience with a product, they are more likely to prefer the product and purchase it again in the future. A bad usage experience, on the other hand, might lead to discontent and reduce the chance of a repeat purchase.

6.3.1 Theoretical Implications

6.3.1.1 Analysis and Synthesis of previous literature

The key objective of this research was to examine the customers' acceptance of social commerce and to analyze UTUAT2, SCC, and user trust as the antecedents of the adoption of social commerce. This research investigated seven dimensions of UTAUT2, SCC, and

user trust as predictors of Saudi customers' PI. Moreover, by following individual differences literature, this study examined customer demographic variables as moderators. This study evaluated the prior literature, mainly concentrating on the preceding eight technology acceptance models and their multiple usages in various settings. Likewise, the individual differences in literature were highlighted. All the work is insightful in vividly comprehending the eight technology acceptance models and demographic variables. The findings of this study recommend both theoretical and practical implications. Previous studies have constantly used various models to examine the antecedents of the PI and use behavior of online shopping through social commerce platforms. The framework used in this study is more comprehensive and encompasses more logical factors in the context of social commerce, keeping in view the developing economy. This research provides theoretical evidence that the UTUAT2 framework and SCC are significant predictors of social commerce acceptance in Saudi Arabia. Furthermore, this study has contributed to the literature by examining customer gender, age, and experience as moderators and providing insights into that customer gender, age, and experience are essential demographic factors that affect the acceptance of social commerce in Saudi Arabia. Therefore, these findings suggested that online businesses can use customer gender, age, and experience in customer segmentation in their experiential marketing strategies; the researcher discussed the detailed contribution of this research.

6.3.1.2 Contribution to the information technology acceptance studies

Academicians and practitioners have used various technology acceptance models (discussed in chapters 1 and 3) to identify determinants and antecedents of technology adoption for online purchasing. The research framework used in this research is more

thorough and contains more logical elements in the context of social commerce, keeping the developed economy in view. In this respect, this research employed UTAUT2, SCC, and user trust as antecedents of social commerce to understand this phenomenon better. Additionally, by following individual differences literature, this study examines customer gender, age, and experience as moderators. The framework used in this research provides new insights for future research on information systems and technology acceptance, especially on social commerce.

6.3.1.3 Contribution to the social commerce literature

The present research added to social commerce literature, particularly to the social commerce platforms. This research suggests that social commerce needs to be expanded to improve technology adoption for online purchases in developed countries such as Saudi Arabia. The current research intended to examine how to improve social commerce acceptance and emphasized the online channels (such as social commerce platforms) to reach customers in far-flung parts of the country. In particular, this research underlines the use of technology for online purchasing, its social commerce platforms, and the country's online shopping indicators. The research on social commerce acceptance and the research direction of social commerce is of absolute significance to researchers and academicians. Future discussions may gain new insights from other variables or related issues in the social commerce industry. The future debates on social commerce may take some other variables or related issues in the social commerce sector for some new insights.

6.3.1.4 Further evidence of individual differences literature

One of the significant contributions to the literature is the incorporation of customer demographic variables as moderators. Numerous studies, such as Rather and Hollebeek

(2021) and Wu et al. (2018), used individual differences variables as moderators to investigate the moderating effect of customer gender, age, and experience on purchase intention and use behavior towards social commerce for online shopping. The novelty of this research is the examination of demographic variables as moderators (gender, age, and experience) at the individual of analysis, particularly in the context of the Arab country. The research results are interesting as they highlight individual differences to comprehend their influence on technology adoption. These findings provide a new indication of the individual difference literature, which is a guideline for future research on technology acceptance.

6.3.2 Methodological contribution

This research has numerous methodological contributions, particularly toward technology acceptance. The present study used models of technology acceptance, which are well-established and tested in different cultural contexts. The preliminary frameworks were established and tested by considering the cultural context of European and North American countries. However, this research tries to apply UTUAT2, SCC, and user trust to investigate its impact on technology acceptance in Saudi Arabia. Consequently, after careful purification and validation, this research adopted the survey instruments for data collection. This research employed several rigorous statistical analyses to establish satisfactory contextual reliability and validity of survey instruments. This research shows that after excluding some indicators, measures' validity and reliability scores reached their acceptable ranges (mentioned in Chapter 5). Therefore, this research adds to the antecedents of technology acceptance by examining the constructs at the individual level of analysis and in the context of an Asian country. This research also contributed by testing

the proposed framework using SEM. The SEM approach is considered a modern form of data analysis that enables researchers to simultaneously obtain multiple levels of independent and dependent constructs in a precise and comprehensive manner (Anderson & Gerbing, 1988; Merhi et al., 2019; Nachtigall et al., 2003; Scherer et al., 2019; Sojka & Giese, 2003; Venkatesh et al., 2012a). According to Beldad and Hegner (2018), SEM incorporates factor analysis and multiple regression to signify relationships within the model. Previously the investigators used factor analysis, regression analysis, analysis of variance (ANOVA), analysis of covariance (ANCOVA), and multivariate analysis of variance (MANOWA), which was only appropriate for evaluating one layer of variables (such as explanatory and criterion). It is worth mentioning that some previous studies employ AMOS or LISREL to obtain SEM results, which are analytical and graphical tools for data analysis. Besides the SPSS, the present research used Smart-PLS 4 software for analysis to check the robustness of the model. The researcher believes that using SPSS and Smart-PLS is extremely useful in the analysis of simple or multi-layers data.

6.3.3 Practical/Managerial Implications

The research provides rich practical and managerial implications for regulators, policymakers, customers, businesses, and governments. The key question of the study is how to provide better online services to customers, especially with the help of social commerce platforms. This research illustrates many reasons for adopting technology for online shopping. PE, FC, PV, habit, SCC, and user trust significantly affect customers' PI. In addition to these factors, demographic factors, gender, age, and experience moderate the effects of UTUAT2 on PI and use behavior. The results of this research are helpful for both sellers and buyers who intend to buy or sell online through social commerce

platforms. Businesses will have to understand how different factors can enhance the purchasing intention of customers and that; as a result, compels them to use different social commerce websites. These results indicate that businesses should incorporate FC, such as knowledge and other resources for website design and marketing efforts that can go a long way to improve the acceptance of social commerce for online shopping, especially among older and tech-savvy consumers. The study helped increase our understanding regarding the factors that explain the variation in customers' intentions to adopt social commerce. Businesses, software providers, and corporate web designers can use these findings to improve their social commerce websites. It will increase social interactions and will help solve the real-time issues faced by the customers as well as they will be informed of the latest discounts and offerings from online businesses (Boateng et al., 2016; Gefen & Straub, 2000; Lin et al., 2019; Mital et al., 2018; Scherer et al., 2018). This research also suggests that customers can interact with each other through social commerce websites while they are transacting with each other. It will add to the immersion of customers in social commerce, especially in developing countries. Moreover, this study extends important insights into demographic differences in social commerce acceptance, which might help businesses improve customer satisfaction by using social commerce platforms. More essentially, the results of this study draw the variations in customer age and emphasize the need to introduce different strategies to attract customers of different gender and age categories. This research argues that gender, age, and experience are crucial to enhancing factors such as FC, PV, and habit because youth-specific rewards and loyalty programs could be developed to attract younger users and ensure facilitated customer retention. Such ways are considerable by seeing young customers' more significant price value worries and might incorporate economic incentives for using social commerce

platforms for online shopping. Also, young people are conscious of the security in payments and expect better value against the price they want to pay and ease in the process of making transactions. This research also suggests that customers pay much attention to forums and communities generated by online retailers. Moreover, ratings, reviews, and previous product recommendations from existing customers are essential for new purchasers to make buying decisions. Customers may also use s-platforms for sharing their product-related experiences with other customers, thus improving their willingness to buy online through social commerce platforms.

The research is also important in providing an opportunity for the budget framework in Saudi Arabia. The requirements of the government and/or other payments should be freely allowed at every online shopping channel. The findings of this research are also useful for society; for example, online businesses have reduced running expenses, the markup on their product pricing is typically substantially smaller, and they can sell items at low prices. Furthermore, shoppers can easily compare identical items from multiple online retailers to choose the best deal, resulting in fair pricing. Moreover, it is also recommendable to the government to protect customers' rights through fair legislation and law. Customers' trust can be enhanced if there are lawful protections for their accounts and information. The law should cover the customers' digital rights, and transparent work is needed to minimize regulatory bottlenecks. The government can also help the digitization process by emphasizing digital know-how. Digital literacy and empowerment can be materialized through education and other similar ways. It will not only help to improve customer trust but also help in the digitization of the whole economy.

This study emphasized the significance of personalization in purchasing decisions. Marketers may follow consumers' preferences using data analytics and AI technology and then offer tailored product suggestions or promotions. Marketers may boost the chance of conversion and develop closer relationships with their customers by personalizing their messages and product offers to specific consumers. The stakeholders, especially B2C businesses, can benefit from this research in several ways. First, the findings of this research assist stakeholders of B2C online businesses in discovering areas for development, such as determining client wants and preferences. This information can then be utilized to create new goods or services, or to improve current ones, to meet the customers' expectations. Second, this research can also assist suppliers to understand their customers' demands and preferences. This enhances their capacity to supply products and services at the right time, strengthening their connection with the company. In conclusion, this research may benefit B2C online business stakeholders by offering valuable insights about consumers, investors, and suppliers, allowing them to make more informed decisions, increase efficiency, and improve overall business performance.

6.4 Limitations and future research directions

In addition to the exciting contributions, the present study has several limitations. The research notes a limitation with regard to the results, which may be restricted to the people, type of technology examined, or the setting of online behavior. The study was done specifically in the area of social commerce. Therefore, it is unclear whether the results may be applied more extensively to other types of technology adoption. Additionally, consumers in other nations might not be comparable to the demographics in this study. Another limitation of this research is a cross-sectional design for data collection from

Saudi Arabian social commerce users. The cross-sectional research design might limit the interferences of causality between the variables of this study. Also, it does not consider the responses of research participants at different points in time. Some measures (such as PI and use behavior) require time intervals to measure them correctly. Therefore, future studies should employ longitudinal research designs to infer the causality among the constructs to examine the antecedents of social commerce acceptance. Secondly, this research only focused the customers who are regular users of social media websites; thus, caution should be exercised while generalizing the study results. Thirdly, data collection at a single point in time from a single set of respondents might create a CMB issue. To address the issue of CMB, future studies should obtain data on multiple points in time from social commerce users, and this will help to fully explore the variations in customers' use behaviors to social commerce.

Fourthly, this research used UTAUT2-specific factors, social commerce constructs, and user trust as antecedents of social commerce. However, this study did not test the common set of mediators or antecedents regarding technical content, appearance, and technology used in social commerce. Future studies may use more rigorous models to study or compare user behavior. Moreover, this research examines the moderating effects of customer gender, age, and experience on PI and use behavior. Future researchers should examine other moderators, for example, trust, government support, personality traits (such as openness), and religiosity; they may have particular impacts on the PI and use behavior towards acceptance of social commerce for online shopping. Fifth, this study collected data from social media users who were also online customers through an online survey. Although the data from online customers is acceptable and has been used in several

published studies (Kim & Kim, 2018; Stephen & Toubia, 2010), however, the online data collection procedures might not always be appropriate, and the results may not be very precise and/or generalizable to all sectors of society. Future researchers can make it more interesting by obtaining data from the country's rural areas. The comparative study of rural and urban areas regarding the acceptance of social commerce is also worth considering for future researchers.

The study could not be generalizable to cross-cultural backgrounds besides the contextual limitation. For instance, the characteristics of Saudi Arabia are distinct from other countries. Saudi Arabia is a collectivist culture with a high level of uncertainty avoidance and power distance, and masculinity/femininity dimensions. Considering those dimensions, the findings can be applied to similar cultural contexts. Another point is the developing stage of the social commerce platforms regarding infrastructure, facilities, connectivity, etc., so the results cannot be applied to underdeveloped countries. Future studies may cover the limitation by extending their sample to other cultures or comparing the cross-cultural aspects of technology acceptance (such as acceptance of m. banking etc.).

6.5 Conclusion

In this study, the researcher examines UTUAT2, SCC, and user trust as predictors of Saudi customers' PI and use behavior towards social commerce for shopping online. Consistent with the individual differences literature, this study tested the moderating role of customer gender, age, and experience on social commerce adoption. This study adds to the previous literature on technology adoption in several ways and elucidates some insightful recommendations for theoretical and practical implications. This research's structural

equation modeling results signify that UTUAT2 factors, such as PE, FC, PV, and HT, significantly predict Saudi customers' purchase intention. This research also shows that social commerce constructs and user trust are significantly related to PI. Likewise, while analyzing the moderating role of customer gender on purchase intention and use behavior, the results indicate that female customers' FC, PV, and HT are more significant predictors of PI and use behavior than men. The results of this research show that for young customers (group 1: 18-35 years), FC, PV, and HT are more significant predictors of intention to purchase through social commerce than middle age (group 2: 36-50 years) and older customers (group 3: above 50 years).

Furthermore, this research illustrates that for customers with 2 to 3 years of experience in online shopping through social commerce FC, HT is a significant predictor of purchase intention, and HT and PI are significant predictors of use behavior. The research adds to the extant literature and elucidates some insightful suggestions for government and businesses. Even though the social commerce platforms in Saudi Arabia provide digital services to the populace, there are many challenges in going online and effectively proliferating to the nook and corner of the country. Companies must concentrate on improving such platforms that can gain active customer participation.

6.6 Chapter Summary

In this chapter, the researcher discussed the study results (chapter 5). Moreover, the contributions of this study are discussed by presenting theoretical and practical implications. In addition, the limitations of this research and suggestions for future research were also presented.

REFERENCES

Abbasi, M. S., Tarhini, A., Elyas, T., & Shah, F. (2015). Impact of individualism and collectivism over the individual's technology acceptance behaviour: A multi-group analysis between Pakistan and Turkey. *Journal of Enterprise Information Management*, *28*(6), 747-768.

Abdullah, D., Jayaraman, K., & Kamal, S. B. M. (2016). A Conceptual Model of Interactive Hotel Website: The Role of Perceived Website Interactivity and Customer Perceived Value Toward Website Revisit Intention. *Procedia Economics and Finance*, *37*, 170–175. https://doi.org/10.1016/S2212-5671(16)30109-5

Abed, S. (2018). An empirical examination of Instagram as an s-commerce channel. *Journal of Advances in Management Research*. 15(2), 146-160.

Abed, S. S., Dwivedi, Y. K., & Williams, M. D. (2016). Social commerce as a business tool in Saudi Arabia's SMEs. *International Journal of Indian Culture and Business Management*, 13(1), 1-19.

Abed, S. S. (2020). Social commerce adoption using TOE framework: An empirical investigation of Saudi Arabian SMEs. *International Journal of Information Management*, 53, 102118.

Abed, S. S., & Ezzi, S. W. (2020). Exploring the demographic differences on customers' adoption of social commerce in Saudi Arabia. *Digital and social media marketing: emerging applications and theoretical development*, 57-66. Springer.

Abed, S. S., Dwivedi, Y. K., & Williams, M. D. (2015). Social media as a bridge to e-commerce adoption in SMEs: A systematic literature review. *The Marketing Review*, 15(1), 39-57.

Abou-Elgheit, E. (2019). Affect-based and personality-based trust and risk in social commerce. *International Journal of Electronic Marketing and Retailing*, 10(2), 173-207.

Ahmad, S. N., & Laroche, M. (2017). Analyzing electronic word of mouth: A social commerce construct. *International Journal of Information Management*, 37(3), 202-213.

Afshan, S., & Sharif, A. (2016). Acceptance of mobile banking framework in Pakistan. *Telematics and Informatics*, 33(2), 370-387.

AlArfaj, A. A., Solaiman, E., & Marshall, L. (2019, September). "Why would you buy from a stranger?" Understanding Saudi citizens' Motivations and Challenges in Social Commerce. In *Human-Computer Interaction–INTERACT 2019: 17th IFIP TC 13 International Conference, Paphos, Cyprus, September 2–6, 2019, Proceedings, Part II 17* (pp. 711-732). Springer International Publishing.

Alharthi, A. S., & Alshehri, M. A. (2020). Investigating the determinants of mobile banking adoption in Saudi Arabia: An extension of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Journal of Retailing and Consumer Services*, 52, 101926.

Alotaibi, T. S., Alkhathlan, A. A., & Alzeer, S. S. (2019). Instagram shopping in Saudi Arabia: what influences consumer trust and purchase decisions?. I*nternational Journal of Advanced Computer Science and Applications*, 10(11).

Akman, I., & Mishra, A. (2017). Factors influencing consumer intention in social commerce adoption. *Information Technology & People*, 30(2), 356–370.

Akram, U., Junaid, M., Zafar, A. U., Li, Z., & Fan, M. (2021). Online purchase intention in Chinese social commerce platforms: Being emotional or rational? *Journal of Retailing and Consumer Services*, 63, 102669.

AlGhamdi, R., Drew, S., & Al-Ghaith, W. (2011). Factors Influencing e-commerce Adoption by Retailers in Saudi Arabia: a qualitative analysis. *The Electronic Journal of Information Systems in Developing Countries*, 47(1), 1-23.

Al-Kubaisi, H. H., & Abu-Shanab, E. A. (2022). Factors influencing trust in social commerce: the case of Qatar. *International Journal of Electronic Business*, *17*(1), 13-36.

Al-Qeisi, K. I. (2009). Analyzing the use of UTAUT model in explaining an online behaviour: Internet banking adoption. Brunel University Brunel Business School PhD Theses].

Al-Tit, A. A., Omri, A., & Hadj, T. B. (2020). The driving factors of the social commerce intention of Saudi Arabia's online communities. *International Journal of Engineering Business Management*, *12*, 1847979019899746.

Alavi, M., & Carlson, P. (1992). A review of MIS research and disciplinary development. *Journal of Management Information Systems*, 8(4), 45-62.

Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of management*, 29(1), 99-118.

Alalwan, A. A., Algharabat, R. S., Baabdullah, A. M., Rana, N. P., Raman, R., Dwivedi, R., & Aljafari, A. (2019). Examining the impact of social commerce dimensions on customers' value cocreation: The mediating effect of social trust. *Undefined*, *18*(6), 431–446. https://doi.org/10.1002/CB.1782

Alamsyah, D. P., & Febriani, R. (2020). Green Customer Behaviour: Impact of Green Brand Awareness to Green Trust. *Journal of Physics: Conference Series*, 1477, 072022. https://doi.org/10.1088/1742-6596/1477/7/072022

Ali, A. A., Abbass, A., & Farid, N. (2020). FACTORS INFLUENCING CUSTOMERS' PURCHASE INTENTION IN SOCIAL COMMERCE. *International Review of Management and Marketing*, 10(5), 63–73. https://doi.org/10.32479/irmm.10097

Aljasir, S. (2019). Are classic theories of celebrity endorsements applicable to new media used by Arabs? A qualitative investigation of Saudi social media users. *Journal of Creative Communications*, 14(1), 15-30.

Al-Hujran, O., Alshibly, H., Alkhalafat, F., & Al-Lozi, M. (2019). The role of perceived value in the adoption of mobile banking services in Saudi Arabia: An extension of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Journal of Retailing and Consumer Services*, 49, 196-210.

Al-Khaldi, M. A., & Wallace, R. S. O. (1999). The in‾uence of attitudes on personal computer utilization among knowledge workers: The case of Saudi Arabia. 20.

Alshehri, H., & Meziane, F. (2013, December). An investigation into Saudi online shoppers' behaviour abroad. In *2013 Sixth International Conference on Developments in eSystems Engineering* (pp. 323-327). IEEE.

Alshehri, M., Drew, S., & Alghamdi, R. (2019). Determining the factors affecting the adoption of e-learning systems by students in Saudi Arabia: An extension of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Education and Information Technologies*, 24(4), 2081-2102.

Alshawawreh, L., Pomponi, F., D'Amico, B., Snaddon, S., & Guthrie, P. (2020). Qualifying the sustainability of novel designs and existing solutions for post-disaster and post-conflict sheltering. *Sustainability*, 12(3), 890.

Alkhowaiter, W. (2016, September). The power of Instagram in building small businesses. In *Conference on e-Business, e-Services and e-Society* (pp. 59-64). Springer, Cham.

Alqahtani, M., & Al-Gahtani, S. (2020). Factors affecting the adoption of mobile banking in Saudi Arabia: An extension of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *Journal of Retailing and Consumer Services*, 54, 102027.

Alqahtani, M. A., AlRoobaea, R. S., & Mayhew, P. J. (2014). Building a conceptual framework for mobile transaction in Saudi Arabia: A user. *S Perspective'*, 2014, 967–973.

Alzahrani, A. I., & Alalwan, A. A. (2021). The role of trust and perceived risk in the adoption of e-government services in Saudi Arabia: An extension of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). *International Journal of Information Management*, 57, 102315.

Al-Qeisi, K., Dennis, C., & Abbad, M. (2015). How viable is the UTAUT model in a non-Western context?. *International Business Research*, 8(2), 204-219.

Fishbein, M., & Ajzen, I. (2005). Theory-based behavior change interventions: Comments on Hobbis and Sutton. *Journal of health psychology*, 10(1), 27-31.

Amatulli, C., Guido, G., & Nataraajan, R. (2015). Luxury purchasing among older consumers: exploring inferences about cognitive age, status, and style motivations. *Journal of Business Research*, 68(9), 1945-1952.

Ansari, A. H., & Malik, S. (2017). Ability-based emotional intelligence and knowledge sharing: The moderating role of trust in co-workers. *VINE Journal of Information and Knowledge Management Systems*, 47(2), 211–227. https://doi.org/10.1108/VJIKMS-09-2016-0050

Athapaththu, J. C., & Kulathunga, D. (2018). Factors Affecting Online Purchase Intention: Effects of Technology and Social Commerce. *International Business Research*, 11(10), 111. https://doi.org/10.5539/ibr.v11n10p111

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.

Andijani, A., & Kang, K. (2022). Social Commerce Acceptance after Post COVID-19 Pandemic in Saudi Women Customers: A Multi-Group Analysis of Customer Age. *Sustainability*, 14(16), 10213.

Anitha, V., & Krishnan, A. (2022). Factors ascendant consumers' Intention for online purchase with special emphasis on Private Label Brands using UTAUT2. *Journal of Positive School Psychology*, 4724–4736-4724–4736.

Araújo Vila, N., Fraiz Brea, J. A., & Pelegrín Borondo, J. (2021). Applying the UTAUT2 model to a non-technological service: the case of Spa tourism. *Sustainability*, 13(2), 803.

Armitage, C. J., & Talibudeen, L. (2010). Test of a brief theory of planned behaviour-based intervention to promote adolescent safe sex intentions. *British Journal of Psychology*, 101(1), 155-172.

Ayeh, J. K., Au, N., & Law, R. (2013). Predicting the intention to use consumer-generated media for travel planning. *Tourism Management*, 35, 132-143.

Bai, Y., Yao, Z., & Dou, Y. F. (2015). Effect of social commerce factors on user purchase behavior: An empirical investigation from renren. com. *International Journal of Information Management*, 35(5), 538-550.

Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, *50*, 418-430.

Barnes, S. J. (2011). Understanding use continuance in virtual worlds: Empirical test of a research model. *Information & management*, 48(8), 313-319.

Baabdullah, A. M., Alalwan, A. A., Rana, N. P., Kizgin, H., & Patil, P. (2019). Consumer use of mobile banking (M-Banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38–52. https://doi.org/10.1016/J.IJINFOMGT.2018.09.002.

Blazquez, M., Zhang, T., Boardman, R., & Henninger, C. E. (2019). Exploring the effects of social commerce on consumers' browsing motivations and purchase intentions in the UK fashion industry. *Social commerce: Consumer behaviour in online environments,* 99-115. Palgrave Macmillan, Cham.

Bandura, A. (1985). Model of Causality in Social Learning Theory. In M. J. Mahoney & A. Freeman (Eds.), *Cognition and Psychotherapy* (pp. 81–99). Springer US. https://doi.org/10.1007/978-1-4684-7562-3_3

Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, *50*, 418–430. https://doi.org/10.1016/j.chb.2015.04.024

Bagozzi, R. P., & Dholakia, U. M. (2002). Intentional social action in virtual communities. *Journal of Interactive Marketing*, 16(2), 2–21.

Beldad, A. D., & Hegner, S. M. (2018). Expanding the technology acceptance model with the inclusion of trust, social influence, and health valuation to determine the predictors of German users' willingness to continue using a fitness app: A structural equation modeling approach. *International Journal of Human–Computer Interaction*, *34*(9), 882-893.

Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117.

Beyari, H., & Abareshi, A. (2018). The interaction of trust and social influence factors in the social commerce environment. In I*nternational Conference of Reliable Information and Communication Technology* (pp. 931-944). Springer, Cham.

Braimah, M. (2015). Green brand awareness and customer purchase intention. *Management Science Letters*, 895–902. https://doi.org/10.5267/j.msl.2015.8.007.

Bell, E., & Bryman, A. (2007). The ethics of management research: an exploratory content analysis. Br*itish journal of management*, 18(1), 63-77.

Blane, D. B. (1996). Collecting retrospective data: development of a reliable method and a pilot study of its use. *Social Science & Medicine*, 42(5), 751-757.

Boateng, H., Adam, D. R., Okoe, A. F., & Anning-Dorson, T. (2016). Assessing the determinants of internet banking adoption intentions: A social cognitive theory perspective. *Computers in Human Behavior*, 65, 468-478.

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*, 399-426.

Bucko, J., Kakalejčík, L., & Ferencová, M. (2018). Online shopping: Factors that affect consumer purchasing behaviour. *Cogent Business & Management*, 5(1), 1535751.

Bürklin, N., & Faber, K. (2019). Capturing the Moment on Instagram: The Case of Successful Storytelling in Huawei's S-commerce Campaign. *Social Commerce: Consumer Behaviour in Online Environments*, 153-167. Palgrave Macmillan, Cham.

Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2001). Qualitative marketing research. Sage.

Chan, K., Zhang, H., & Wang, I. (2006). Materialism among adolescents in urban China. *Young Consumers*, 7(2), 64-77.

Chang, H. H., & Liu, Y. M. (2009). The impact of brand equity on brand preference and purchase intentions in the service industries. *The Service Industries Journal*, 29(12), 1687-1706.

Chang, N., & Chen, L. (2014). Evaluating the learning effectiveness of an online information literacy class based on the Kirkpatric framework. *Libri*, 64(3), 211-223.

Changchit, C., Cutshall, R., & Pham, A. (2020). Personality and demographic characteristics influence on consumers' social commerce preference. *Journal of Computer Information Systems*, 62(1), 98-108.

Chaniotakis, I. E., & Lymperopoulos, C. (2009). Service quality effect on satisfaction and word of mouth in the health care industry. *Managing service quality: An international Journal*, 19(2), 229-242.

Chang, C.-H., & Chen, Y.-S. (2014). Managing green brand equity: The perspective of perceived risk theory. *Quality & Quantity*, *48*(3), 1753–1768. https://doi.org/10.1007/s11135-013-9872-y

Chang, C.-M., Liu, L.-W., Huang, H.-C., & Hsieh, H.-H. (2019). Factors Influencing Online Hotel Booking: Extending UTAUT2 with Age, Gender, and Experience as Moderators. *Information*, 10(9), 281. https://doi.org/10.3390/info10090281.

Chuan, C. L., & Penyelidikan, J. (2006). Sample size estimation using Krejcie and Morgan and Cohen statistical power analysis: A comparison. *Jurnal Penyelidikan IPBL*, 7(1), 78-86.

Chen, W., & Hirschheim, R. (2004). A paradigmatic and methodological examination of information systems research from 1991 to 2001. *Information systems journal*, 14(3), 197-235.

Chen, J., Xu, H., & Whinston, A. B. (2011). Moderated online communities and quality of user-generated content. *Journal of Management Information Systems*, 28(2), 237–268

Chen, Y., & Xie, J. (2005). Third-party product review and firm marketing strategy. *Marketing science*, 24(2), 218-240.

Choudrie, J., & Dwivedi, Y. K. (2005). Investigating the research approaches for examining technology adoption issues. *Journal of Research Practice*, 1(1), D1-D1.

Choi, E.K., Wilson, A. and Fowler, D. (2013), "Exploring customer experiential components and the conceptual framework of customer experience, customer satisfaction, and actual behavior", *Journal of Foodservice Business Research*, 16(4), 347-358.

Chow, W. S. (2019). Understanding consumer trust in social commerce websites. In *pacific asia conference on information systems,* 1- 20.

Connelly, C. E., & Kevin Kelloway, E. (2003). Predictors of employees' perceptions of knowledge sharing cultures. *Leadership & Organization Development Journal*, 24(5), 294–301. https://doi.org/10.1108/01437730310485815

Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). Trust and e-commerce: A study of consumer perceptions. *Electronic Commerce Research and Applications*, 2(3), 203–215. https://doi.org/10.1016/S1567-4223(03)00024-3

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 64-73.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (0805822232).

Cooper, D. R., Schindler, P. S., & Sun, J. (2003). Business research methods.

Cooper, D. R., & Schindler, P. S. (2011). Business Research Methods'. McGraw-Hill. Americas, New York.

Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. Handbook of mixed methods in social and behavioral research, 209(240), 209-240.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.

Crowther, D., & Lancaster, G. (2008). Research Methods: A Concise Introduction to Research in Management and Business Consultancy. Oxford: Butterworth-Heinemann.

Dabbous, A., Aoun Barakat, K., & Merhej Sayegh, M. (2020). Social Commerce Success: Antecedents of Purchase Intention and the Mediating Role of Trust. *Journal of Internet Commerce*, 19(3), 262–297. https://doi.org/10.1080/15332861.2020.1756190

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. https://doi.org/10.2307/249008

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace1. *Journal of Applied Social Psychology*, 22(14), 1111–1132. https://doi.org/10.1111/j.1559-1816.1992.tb00945.x.

Dedeoglu, B. B. (2018). Are information quality and source credibility really important for shared content on social media? The moderating role of gender. *International Journal of Contemporary Hospitality Management*. 31(1), 513–534.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. J*ournal of marketing research*, 28(3), 307-319.

Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of marketing*, 61(2), 35-51.

Donnelly, J. P., & Trochim, W. M. (2005). Research Methods: The Concise Knowledge Base: Base Workbook James P. Donnelly, William MK Trochim. Atomic Dog Publishing.

Eid, M., & Al-Anazi, F. U. (2008). Factors influencing Saudi consumers loyalty toward B2C E-commerce. A*MCIS 2008 Proceedings*, 405.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.

Esmaeili, L., & Hashemi G, S. A. (2019). A systematic review on social commerce. *Journal of Strategic Marketing*, 27(4), 317-355.

Elliot, A. J. (2006). The Hierarchical Model of Approach-Avoidance Motivation. *Motivation and Emotion*, 30(2), 111–116. https://doi.org/10.1007/s11031-006-9028-7.

Extremera, N., & Rey, L. (2016). Ability emotional intelligence and life satisfaction: Positive and negative affect as mediators. *Personality and Individual Differences*, 102, 98-101.

Farzin, M., Sadeghi, M., Kharkeshi, F. Y., Ruholahpur, H., & Fattahi, M. (2021). Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter? *Asian Journal of Economics and Banking*, 5(2), 136-157.

Faqih, K. M., & Jaradat, M. I. R. M. (2021). Integrating TTF and UTAUT2 theories to investigate the adoption of augmented reality technology in education: Perspective from a developing country. *Technology in Society*, 67, 101787.

Field, A. (2009). Discovering statistics using SPSS. Sage publications.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.

Friedrich, A., Flunger, B., Nagengast, B., Jonkmann, K., & Trautwein, U. (2015). Pygmalion effects in the classroom: Teacher expectancy effects on students' math achievement. *Contemporary Educational Psychology*, 41, 1-12.

Gan, C., & Wang, W. (2017). The influence of perceived value on purchase intention in social commerce context. *Internet Research*, 27(4), 772–785. https://doi.org/10.1108/IntR-06-2016-0164

Gefen, D., & Straub, D. W. (1997). Gender differences in the perception and use of e-mail: An extension to the technology acceptance model. *Mis Quarterly*, 389-400.

Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the association for Information Systems*, 1(1), 8.

GMI, 2022. Saudi Arabia Social Media Statistics; Dubai Digital Interactive Agency: Dubai, United Arab Emirates.

González, J., De Boeck, P., & Tuerlinckx, F. (2008). A double-structure structural equation model for three-mode data. *Psychological Methods*, 13(4), 337.

Gu, J.-C., Lee, S.-C., & Suh, Y.-H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605–11616. https://doi.org/10.1016/j.eswa.2009.03.024

Gupta, N. (2011). Globalization does lead to change in consumer behavior: an empirical evidence of impact of globalization on changing materialistic values in Indian consumers and its aftereffects. *Asia Pacific Journal of Marketing and Logistics*, 23(3), 251-269.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. Handbook of qualitative research, 2(163-194), 105.

Gupta, S., Kiran, R., & Sharma, R. K. (2022). Validating the role of digital payment mode as a new driver of online shopping: A modified UTAUT2 model. *Journal of Public Affairs*, 22(2), e2434.

Hair, J., Anderson, R. E., Tatham, R. L., & Black, W. (1998). Multivariate data analysis New Jersey. *USA: Englewood Cliffs*.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis 6th Edition. *New Jersey: Pearson Education*.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.

Hajli, M., Hajli, M., & Khani, F. (2013, April). Establishing trust in social commerce through social word of mouth. In *7th International Conference on e-Commerce in Developing Countries: with focus on e-Security* (pp. 1-22). IEEE.

Hajli, N. (2015). Social commerce constructs and consumer's intention to buy. *International Journal of Information Management*, *35*(2), 183-191.

Hajli, N., & Sims, J. (2015). Social commerce: The transfer of power from sellers to buyers. *Technological Forecasting and Social Change*, 94, 350-358.

Han, M. C., & Kim, Y. (2017). Why consumers hesitate to shop online: Perceived risk and product involvement on Taobao. com. *Journal of promotion management*, 23(1), 24-44.

Hajli, N., Sims, J., Zadeh, A. H., & Richard, M. O. (2017). A social commerce investigation of the role of trust in a social networking site on purchase intentions. *Journal of Business Research*, 71, 133-141.

Hanif, M. S., Wang, M., Mumtaz, M. U., Ahmed, Z., & Zaki, W. (2021). What attracts me or prevents me from mobile shopping? An adapted UTAUT2 model empirical research on behavioral intentions of aspirant young consumers in Pakistan. *Asia Pacific Journal of Marketing and Logistics*, 34(5), 1031-1059.

Hardeman, W., Johnston, M., Johnston, D., Bonetti, D., Wareham, N., & Kinmonth, A. L. (2002). Application of the Theory of Planned Behaviour in Behaviour Change Interventions: A Systematic Review. *Psychology & Health*, *17*(2), 123–158. https://doi.org/10.1080/08870440290013644a

Hashim, Noor Azuan, Shifa Mohd Nor, and Hawati Janor (2016). "Riding the waves of social commerce: An empirical study of Malaysian entrepreneurs." *Geografia* 12(2).

Hallebone, E., & Priest, J. (2008). Management Research.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (pp. 277-319). Emerald Group Publishing Limited.

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. J*ournal of management*, 21(5), 967-988.

Hirschheim, R. (1985). Information systems epistemology: An historical perspective. *Research methods in information systems*, 9, 13-35.

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online readings in psychology and culture*, 2(1), 2307-0919.

Hootsuite, 2022. "2022 Digital Trends Report". https://www.hootsuite.com/resources/digital-trends.

Holmes-Smith, P., Coote, L., & Cunningham, E. (2006). Structural equation modeling: From the fundamentals to advanced topics. *SREAMS, Melbourne*.

Holten, A.-L., Robert Hancock, G., Persson, R., Marie Hansen, Å., & Høgh, A. (2016). Knowledge hoarding: Antecedent or consequent of negative acts? The mediating role of trust and justice. *Journal of Knowledge Management*, 20(2), 215–229. https://doi.org/10.1108/JKM-06-2015-0222.

Hossain, M. A., Zhumabekova, A., Paul, S. C., & Kim, J. R. (2020). A Review of 3D Printing in Construction and its Impact on the Labor Market. *Sustainability*, 12(20), 8492.

Hopp, T., & Barker, V. (2016). Investigating the influence of age, social capital affinity, and flow on positive outcomes reported by e-commerce site users. B*ehaviour & Information Technology*, 35(5), 380-393.

Huang, Z., & Benyoucef, M. (2013). From e-commerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(4), 246–259. https://doi.org/10.1016/j.elerap.2012.12.003.

Hudson, L. A., & Ozanne, J. L. (1988). Alternative ways of seeking knowledge in consumer research. *Journal of consumer research*, 14(4), 508-521.

Ismagilova, E., Slade, E. L., Rana, N. P., & Dwivedi, Y. K. (2019). The effect of electronic word of mouth communications on intention to buy: A meta-analysis. *Information Systems Frontiers*, 1-24.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*(1), 31-36.

Jiang, C., Rashid, R.M., Wang, J., 2019. Investigating the role of social presence dimensions and information support on consumers' trust and shopping intentions. *J. Retailing Consum. Serv.* 51 (June), 263–270.

Jin, S. V., & Ryu, E. (2020). "I'll buy what she's# wearing": The roles of envy toward and parasocial interaction with influencers in Instagram celebrity-based brand endorsement and social commerce. *Journal of Retailing and Consumer Services*, 55, 102121.

Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3(1–2), 128–143. https://doi.org/10.1016/j.ism.2015.04.001

Kalaiarasi, H., & Srividya, V. (2013). An investigation on online banking adoption. *International Journal of Business Innovation and Research*, 7(1), 99. https://doi.org/10.1504/IJBIR.2013.050558

Khan, I. U., Hameed, Z., Hamayun, M. J. B., & Review, E. (2019). Investigating the Acceptance of Electronic Banking in the Rural Areas of Pakistan: An Application of the Unified Model. 11(3), 57-87.

Khan, I. U., Hameed, Z., Khan, S. N., Khan, S. U., & Khan, M. T. (2022). Exploring the Effects of Culture on Acceptance of Online Banking: A Comparative Study of Pakistan and Turkey by Using the Extended UTAUT Model. *Journal of Internet Commerce*, 21(2), 183-216. https://doi.org/10.1080/15332861.2021.1882749

Khan, I. U., Hameed, Z., & Khan, S. U. (2017). Understanding online banking adoption in a developing country: UTAUT2 with cultural moderators. *Journal of Global Information Management (JGIM)*, 25(1), 43-65.

Khan, I. U., Hameed, Z., Yu, Y., Islam, T., Sheikh, Z., & Khan, S. U. (2017). Predicting the acceptance of MOOCs in a developing country: Application of Task-Technology Fit Model, Social Motivation, and Self-determination Theory. *Telematics and Informatics*, 35(4), 964-978.

Khwaja, M. G., Mahmood, S., & Zaman, U. (2020). Examining the effects of eWOM, trust inclination, and information adoption on purchase intentions in an accelerated digital marketing context. *Information*, *11*(10), 478.

Kim, D.-Y., & Park, O. (2009). A study on American meeting planners' attitudes toward and adoption of technology in the workplace. *Tourism and Hospitality Research*, *9*(3), 209-223.

Kim, M. J., Lee, C. K., & Contractor, N. S. (2019). Seniors' usage of mobile social network sites: Applying theories of innovation diffusion and uses and gratifications. *Computers in Human Behavior*, 90, 60-73.

Kim, S., & Park, H. (2013). Effects of various characteristics of social commerce (s-commerce) on consumers' trust and trust performance. *International Journal of Information Management*, 33(2), 318-332.

Kim, S. S., Malhotra, N. K., & Narasimhan, S. (2005). Research note—two competing perspectives on automatic use: A theoretical and empirical comparison. *Information systems research*, 16(4), 418-432.

Kim, N., & Kim, W. (2018). Do your social media lead you to make social deal purchases? Consumer-generated social referrals for sales via social commerce. *International Journal of Information Management*, 39, 38-48.

Kline, R. (2011). Principles and Practice of Structural Equation Modeling, 3rd edn Guilford Press. *New York*.

Kline, R. B. (2005). Principles and Practice of Structural Equation Modeling (Guilford, New York). In.

Lai, L. S., & Turban, E. (2008). Groups formation and operations in the Web 2.0 environment and social networks. *Group Decision and negotiation*, 17(5), 387-402.

Lacey, J. H., Kelley-Baker, T., Furr-Holden, D., Brainard, K., & Moore, C. (2007). *Pilot test of new roadside survey methodology for impaired driving* (No. DOT-HS-810-704). United States. National Highway Traffic Safety Administration.

Lăzăroiu, G., Neguriţă, O., Grecu, I., Grecu, G., & Mitran, P. C. (2020). Consumers' decision-making process on social commerce platforms: online trust, perceived risk, and purchase intentions. *Frontiers in Psychology*, 11, 890.

Lee, S. M., Lee, D., & Kang, C.-Y. (2012). The impact of high-performance work systems in the health-care industry: employee reactions, service quality, customer satisfaction, and customer loyalty. *The Service Industries Journal*, 32(1), 17-36.

Lee, S. W., Sung, H. J., & Jeon, H. M. (2019). Determinants of continuous intention on food delivery apps: extending UTAUT2 with information quality. *Sustainability*, 11(11), 3141.

Li, C.-Y. (2019). How social commerce constructs influence customers' social shopping intention? An empirical study of a social commerce website. *Technological Forecasting and Social Change*, *144*, 282-294.

Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors influencing online shopping behavior: the mediating role of purchase intention. *Procedia economics and finance*, *35*, 401-410.

Limayem, M., Hirt, S. G., & Cheung, C. M. (2007). How habit limits the predictive power of intention: The case of information systems continuance. *Mis Quarterly*, 705-737.

Lin, X., & Wang, X. (2022). Towards a model of social commerce: improving the effectiveness of e-commerce through leveraging social media tools based on consumers' dual roles. *European journal of information systems*, 1-18.

Lin, X., Wang, X., & Hajli, N. (2019). Building e-commerce satisfaction and boosting sales: The role of social commerce trust and its antecedents. *International Journal of Electronic Commerce*, 23(3), 328-363.

Liu, P., Li, M., Dai, D., and Guo, L. (2021). "The Effects of Social Commerce Environmental Characteristics on Customers' Purchase Intentions: The Chain Mediating Effect of Customer-to-Customer Interaction and Customer-Perceived Value," *Electronic Commerce Research and Applications* (48), p. 101073.

Liu, C., Bao, Z., & Zheng, C. (2019). Exploring consumers' purchase intention in social commerce: an empirical study based on trust, argument quality, and social presence. *Asia Pacific Journal of Marketing and Logistics*.

Lian, J. W., & Yen, D. C. (2014). Online shopping drivers and barriers for older adults: Age and gender differences. Computers in human behavior, 37, 133-143.

Liang, T.-P., & Turban, E. (2011). Introduction to the Special Issue Social Commerce: A Research Framework for Social Commerce. *International Journal of Electronic Commerce*, 16(2), 5–14. https://doi.org/10.2753/JEC1086-4415160201

López-Nicolás, C., Molina-Castillo, F. J., & Bouwman, H. (2008). An assessment of advanced mobile services acceptance: Contributions from TAM and diffusion theory models. *Information & Management*, 45(6), 359–364. https://doi.org/10.1016/j.im.2008.05.001

Loureiro, S.M.C., Roschk, H., 2014. Differential effects of atmospheric cues on emotions and loyalty intention with respect to age under online/offline environment. *J. Retailing Consum. Serv,* 21 (2), 211–219

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

Makki, E., & Chang, L. C. (2015). Understanding the effects of social media and mobile usage on e-commerce: an exploratory study in Saudi Arabia. *International management review*, 11(2), 98-109.

Martins, C., Oliveira, T., & Popovič, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 34(1), 1-13.

Makmor, N., Alam, S. S., & Aziz, N. A. (2018). *Social Support, Trust and Purchase Intention in Social Commerce Era*. 7(5), 11.

Miladinovic, J., & Hong, X. (2016). A study on factors affecting the behavioral intention to use mobile shopping fashion apps in Sweden.

Merhi, M., Hone, K., & Tarhini, A. (2019). A cross-cultural study of the intention to use mobile banking between Lebanese and British consumers: Extending UTAUT2 with security, privacy and trust. *Technology in Society*, 59, 101151.

Mital, M., Chang, V., Choudhary, P., Papa, A., & Pani, A. K. (2018). Adoption of Internet of Things in India: A test of competing models using a structured equation modeling approach. *Technological Forecasting and Social Change*, 136, 339-346.

Mou, J., & Benyoucef, M. (2021). Consumer behavior in social commerce: Results from a meta-analysis. *Technological Forecasting and Social Change*, 167, 120734.

Morosan, C., & DeFranco, A. (2016). It's about time: Revisiting UTAUT2 to examine consumers' intentions to use NFC mobile payments in hotels. *International Journal of Hospitality Management*, 53, 17–29. https://doi.org/10.1016/j.ijhm.2015.11.003.

Mortimer, G., Neale, L., Hasan, S. F. E., & Dunphy, B. (2015). Investigating the factors influencing the adoption of m-banking: a cross cultural study. *International Journal of Bank Marketing*, 33(4), 545-570.

Nabavi, R. T. (n.d.). *Bandura's Social Learning Theory & Social Cognitive Learning Theory*. 24.

Nachtigall, C., Kroehne, U., Funke, F., & Steyer, R. (2003). Pros and Cons of Structural Equation Modeling. *Methods of Psychological Research Online*, 8(2), 1-22.

Nadeem, W., Khani, A. H., Schultz, C. D., Adam, N. A., Attar, R. W., & Hajli, N. (2020). How social presence drives commitment and loyalty with online brand communities? the role of social commerce trust. *Journal of Retailing and Consumer Services*, 55, 102136.

Nunnally, J. (1978). C.(1978). Psychometric theory. In: New York: McGraw-Hill.

Orlikowski, W. J., & Baroudi, J. J. (1991). Studying information technology in organizations: Research approaches and assumptions. *Information systems research*, 2(1), 1-28.

Pallant, J., & Pallant, J. (2010). *SPSS survival manuala step by step guide to data analysis using SPSS* (0335242391).

Pearson, K. (1922). Francis Galton 1822-1922: A centenary appreciation.

Peña-García, N., Gil-Saura, I., Rodríguez-Orejuela, A., & Siqueira-Junior, J. R. (2020). Purchase intention and purchase behavior online: A cross-cultural approach. *Heliyon*, *6*(6), e04284.

Peter, J. P. (1981). Construct validity: A review of basic issues and marketing practices. *Journal of Marketing Research*, 133-145.

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*(5), 879.

Podsakoff, P. M., MacKenzie, S. B., & Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and rec-ommended remedies. *Journal of applied psychology*, 88, 879-903.

Pugliese, J. A., & Okun, M. A. (2014). Social control and strenuous exercise among late adolescent college students: Parents versus peers as influence agents. *Journal of Adolescence*, 37(5), 543-554. https://doi.org/http://dx.doi.org/10.1016/j.adolescence.2014.04.008

Ramírez-Correa, P., Rondán-Cataluña, F. J., Arenas-Gaitán, J., & Martín-Velicia, F. (2019). Analysing the acceptation of online games in mobile devices: An application of UTAUT2. *Journal of Retailing and Consumer Services*, *50*, 85-93.

Rather, R. A., & Hollebeek, L. D. (2021). Customers' service-related engagement, experience, and behavioral intent: Moderating role of age. *Journal of Retailing and Consumer Services*, *60*, 102453.

Riaz, M. U., Guang, L. X., Zafar, M., Shahzad, F., Shahbaz, M., & Lateef, M. (2021). Consumers' purchase intention and decision-making process through social networking sites: a social commerce construct. *Behaviour & Information Technology*, 40(1), 99-115.

Ringle, C., Wende, S., & Will, A. (2005). SmartPLS software. *Hamburg, Germany: University of Hamburg*.

Rogers, E. M. (1976). New Product Adoption and Diffusion. *Journal of Consumer Research*, 2(4), 290. https://doi.org/10.1086/208642

Sankaran, R., & Chakraborty, S. (2021). Factors impacting mobile banking in India: Empirical approach extending UTAUT2 with perceived value and trust. *IIM Kozhikode Society & Management Review*, 11(1), 7-24.

Saprikis, Markos, Zarmpou, & Vlachopoulou, (2018). *Examining Behavioral Intention towards Social Commerce: An Empirical Investigation in University Students*. In *Proceedings of the 32nd IBIMA Conference, Seville, Spain* (pp. 15-16).

Saleem, F., Zhang, Y. Z., Gopinath, C., & Adeel, A. (2020). Impact of Servant Leadership on Performance: The Mediating Role of Affective and Cognitive Trust. *SAGE Open*, 10(1), 215824401990056. https://doi.org/10.1177/2158244019900562

Scherer, R., Siddiq, F., & Tondeur, J. (2019). The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education. *Computers & Education*, 128, 13-35.

Scherer, R., Tondeur, J., Siddiq, F., & Baran, E. (2018). The importance of attitudes toward technology for pre-service teachers' technological, pedagogical, and content knowledge: Comparing structural equation modeling approaches. *Computers in human behavior*, 80, 67-80.

Schirmer, N., Ringle, C. M., Gudergan, S. P., & Feistel, M. S. (2018). The link between customer satisfaction and loyalty: the moderating role of customer characteristics. *Journal of Strategic Marketing*, 26(4), 298-317.

Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects. *Information & management*, 44(1), 90-103.

Schneider, B., Ashworth, S. D., Higgs, A. C., & Carr, L. (1996). Design, validity, and use of strategically focused employee attitude surveys. *Personnel Psychology*, 49(3), 695-705.

Senecal, S., & Nantel, J. (2004). The influence of online product recommendation on consumers' online choices. *Journal of Retailing*, 80(2), 159–169

Sensuse, D. I., Pratama, A. A., Satria, D., Noprisson, H., & Ramadhan, A. (2017, October). Investigating factors of purchase intention based on social commerce, trust and follower in social media. In *2017 International Conference on Information Technology Systems and Innovation (ICITSI)* (pp. 315-319). IEEE.

Seppälä, T., Lipponen, J., & Pirttilä-Backman, A.-M. (2012). Leader fairness and employees' trust in coworkers: The moderating role of leader group prototypicality. *Group Dynamics: Theory, Research, and Practice*, 16(1), 35–49. https://doi.org/10.1037/a0026970

Sekaran, U. (2006). Research methods for business. *Wiley India Pvt*.

Sezgin, E., & Özkan-Yıldırım, S. (2016). A cross-sectional investigation of acceptance of health information technology: A nationwide survey of community pharmacists in Turkey. *Research in Social and Administrative Pharmacy*, 12(6), 949-965.

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, *52*(3-4), 591-611.

Shanmugam, M., Sun, S., Amidi, A., Khani, F., and Khani, F. 2016. "The Applications of Social Commerce Constructs," *International Journal of Information Management,* 36(3), 425-432.

Sharifkhani, M., Khazaei Pool, J., & Asian, S. (2016). The impact of leader-member exchange on knowledge sharing and performance: An empirical investigation in the oil and gas industry. *Journal of Science and Technology Policy Management*, 7(3), 289–305. https://doi.org/10.1108/JSTPM-11-2015-0037

Sheikh, Z., Islam, T., Rana, S., Hameed, Z., & Saeed, U. (2017). Acceptance of social commerce framework in Saudi Arabia. *Telematics and Informatics*, 34(8), 1693-1708.

Sheikh, Z., Yezheng, L., Islam, T., Hameed, Z., & Khan, I. U. (2019). Impact of social commerce constructs and social support on social commerce intentions. *Information Technology & People*, 32(1), 68-93.

Shih, Y.-Y., & Fang, K. (2006). Effects of network quality attributes on customer adoption intentions of Internet Banking. *Total Quality Management & Business Excellence*, 17(1), 61–77. https://doi.org/10.1080/14783360500249661.

Siddiqui, N., Mannion, M., & Marciniak, R. (2019). An exploratory investigation into the consumer use of WeChat to engage with luxury fashion brands. In Social commerce (pp. 213-234). Palgrave Macmillan, Cham.

Singh, S. K. (2019). Territoriality, task performance, and workplace deviance: Empirical evidence on role of knowledge hiding. *Journal of Business Research*, *97*, 10–19. https://doi.org/10.1016/j.jbusres.2018.12.034

Sojka, J. Z., & Giese, J. L. (2003). Using individual differences to detect customer shopping behaviour. *The International Review of Retail, Distribution and Consumer Research*, *13*(4), 337-353.

Soodan, V., & Rana, A. (2020). Modeling customers' intention to use e-wallet in a developing nation: Extending UTAUT2 with security, privacy and savings. *Journal of Electronic Commerce in Organizations (JECO)*, 18(1), 89-114.

Statista, (2022). Number of social network users in Suadi Arabia https://www.statista.com/statistics/1202771/saudi-arabia-share-of-social-network-users-by-platform/ [cited 2022 08 August].

Stephen, A. T., & Toubia, O. (2010). Deriving value from social commerce networks. *Journal of marketing research*, 47(2), 215-228.

Sutomo, E., Rahman, N. S. B. A., & Romli, A. B. (2021, August). Antecedents the use of Social Commerce in Small Medium Enterprise: A Conceptual Framework. In *2021 International Conference on Software Engineering & Computer Systems and 4th International Conference on Computational Science and Information Management (ICSECS-ICOCSIM)* (pp. 31-36). IEEE.

Swanson, R. A., & Holton, E. F. (2005). Research in organizations: Foundations and methods in inquiry. Berrett-Koehler Publishers.

Smith, A., & Anderson, M. (2018). Social media use in 2018.

Stephen, A. T., & Toubia, O. (2010). Deriving value from social commerce networks. *Journal of Marketing Research*, 47(2), 215-228.

Tabachnick, B., & Fidell, L. (2007a). Multivariate analysis of variance and covariance. *Using multivariate statistics*, *3*, 402-407.

Tabachnick, B., & Fidell, L. (2007b). Using Multivariate Statistics, 5th Edn Boston: Pearson Education. In: Inc.

Tarhini, A., Hone, K., Liu, X., & Tarhini, T. (2017). Examining the moderating effect of individual-level cultural values on users' acceptance of E-learning in developing countries: A structural equation modeling of an extended technology acceptance model. *Interactive Learning Environments*, 25(3), 306–328. https://doi.org/10.1080/10494820.2015.1122635

Taylor, D. G., Lewin, J. E., & Strutton, D. (2011). Friends, Fans, and Followers: Do Ads Work on Social Networks? How Gender and Age Shape Receptivity. *Journal of Advertising Research*, 51(1), 258-275.

Taylor, S., & Todd, P. A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research*, 6(2), 144–176. https://doi.org/10.1287/isre.6.2.144.

Thaichon, P., Lobo, A., Quach, T.N., 2016. The moderating role of age in customer loyalty formation process. *Serv. Market. Q.* 37(1), 52–70

Thomas Sarver, V. (1983). Ajzen and Fishbein's 'Theory of Reasoned Action': A Critical Assessment. *Journal for the Theory of Social Behaviour*, 13(2), 155–164. https://doi.org/10.1111/j.1468-5914.1983.tb00469.x

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization. *MIS Quarterly*, 15(1), 125. https://doi.org/10.2307/249443

Thong, J. Y., Hong, S.-J., & Tam, K. Y. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. *International Journal of Human-Computer Studies*, 64(9), 799-810.

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(1), 41-48.

Van Droogenbroeck, E., & Van Hove, L. (2021). Adoption and usage of e-grocery shopping: A context-specific UTAUT2 model. *Sustainability*, 13(8), 4144.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.

Venkatesh, V., & Morris, M. G. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *Mis Quarterly*, 115-139.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *Mis Quarterly*, 425-478.

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*, 157-178.

Wang, J., Shahzad, F., Ahmad, Z., Abdullah, M., & Hassan, N. M. (2022). Trust and consumers' purchase intention in a social commerce platform: A meta-analytic approach. *Sage Open,* 12(2), 21582440221091262.

Wang, Y., & Herrando, C. (2019). Does privacy assurance on social commerce sites matter to millennials?. *International Journal of Information Management*, 44, 164-177.

Wang, J., Shahzad, F., Ahmad, Z., Abdullah, M., & Hassan, N. M. (2022). Trust and consumers' purchase intention in a social commerce platform: A meta-analytic approach. Sage Open, 12(2), 21582440221091262.

Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications*, 39(10), 8899–8908. https://doi.org/10.1016/j.eswa.2012.02.017.

Wardhani, S. A. K., & Subriadi, A. P. (2020, December). Consumer Behavior in Social Commerce Adoption: Systematic Literature Review. In 2020 3rd International Seminar on Research of Information Technology and Intelligent Systems (ISRITI) (pp. 539-544). IEEE.

Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: the moderating role of experience. *Information Technology & People*, 31(3), 688-711

Yeon, J., Park, I., Lee, D., 2019. What creates trust and who gets loyalty in social commerce? *J. Retailing Consum. Serv.* 50 (April), 138–144.

Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2010). Explaining Internet Banking Behavior: Theory of Reasoned Action, Theory of Planned Behavior, or Technology Acceptance Model?: INTERNET BANKING BEHAVIOR. *Journal of Applied Social Psychology*, 40(5), 1172–1202. https://doi.org/10.1111/j.1559-1816.2010.00615.x

Yusuf, A. S., & Busalim, A. H. (2018). Influence of e-WOM engagement on consumer purchase intention in social commerce. *Journal of Services marketing*, 32(4), 493-504.

Zehir, C., Sehitoglu, Y., & Erdogan, E. (2012). The Effect of Leadership and Supervisory Commitment to Organizational Performance. *Procedia - Social and Behavioral Sciences*, 58, 207–216. https://doi.org/10.1016/j.sbspro.2012.09.994.

Zhang, K., & Benyoucef, M. (2016). Consumer behavior in social commerce: A literature review. *Decision Support Systems*, 86, 95–108.

Zhang, K. Z. K., & Benyoucef, M. (2016). Consumer behavior in social commerce: A literature review. *Decision Support Systems*, 86, 95–108. https://doi.org/10.1016/j.dss.2016.04.001

Zhao, J. Di, Huang, J.S., Su, S., 2019. The effects of trust on consumers' continuous purchase intentions in C2C social commerce: a trust transfer perspective. J. Retailing Consum. Serv. 50 (April), 42–49.

Zhou, L., Zhang, P., & Zimmermann, H.-D. (2013). Social commerce research: An integrated view. *Electronic Commerce Research and Applications*, 12(2), 61–68. https://doi.org/10.1016/j.elerap.2013.02.003

Zhu, D. S., Chih, Z., O'Neal, G. S., & Chen, Y. H. (2011). Mr. Risk! Please trust me: Trust antecedents that increase online consumer purchase intention. *Journal of Internet Banking and Commerce*, 16(3), 1.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2003). Research methods. Health economics research method, 2.

APPENDIX

IA: Survey information sheet

INFORMATION SHEET AND CONSENT FORM FOR ONLINE SURVEYS

ETH22-7027- Investigating the Factors that Generate Purchase Intention and Use of Social Commerce across Different Age Groups

What is the research study about?
The purpose of this research/online survey is to understand what leads to purchase intention and adoption of social commerce in Saudi Arabia.
You have been invited to participate because the point of view of the public, weather they were consumers or not, is really important to study the phenomena of social commerce.

Who is conducting this research?
My name is Abdulrahman Andijani and I am a PhD student at UTS. My supervisor is Dr. Kyeong Kang and her email is**: Kyeong.Kang@uts.edu.au**

Inclusion/Exclusion Criteria
Before you decide to participate in this research study, we need to ensure that it is ok for you to take part.
Participants must be regular users of social media platforms.

Do I have to take part in this research study?
Participation in this study is voluntary. It is completely up to you whether or not you decide to take part.
If you decide to participate, I will invite you to answer the online survey carefully.

You can change your mind at any time and stop completing the surveys without consequences.

Are there any risks/inconvenience?
We don't expect this questionnaire to cause any harm or discomfort, however if you experience feelings of distress as a result of participation in this study you can let the researcher know at **Abdulrahman.Andijani@student.uts.edu.au** and they will provide you with assistance.

What will happen to information about me?
All this information will be treated confidentially. It will be completely anonymous No need to mention your name or anything that could identify you. Your information will only be used for the purpose of this research project and it will only be disclosed with your permission, except as required by law.

We plan to *discuss and publish* the results *[UTS and papers and journals and conferences]*.

What if I have concerns or a complaint?
If you have concerns about the research that you think I or my supervisor can help you with, please feel free to contact me on **Abdulrahman.Andijani@student.uts.edu.au** or **Kyeong.Kang@uts.edu.au**

If you would like to talk to someone who is not connected with the research, you may contact the Research Ethics Officer on 02 9514 9772 or Research.ethics@uts.edu.au and this number [ETH22-7027]

Are you willing to participate in this survey?
Yes
No

جامعة سيدني للتكنولوجيا

ورقة المعلومات واستمارة الموافقة على الاستبيان عبر الإنترنت

ETH22-7027– دراسة العوامل التي تولد الرغبة في الشراء وتبني التجارة الإلكترونية في منصات التواصل الاجتماعي عبر مختلف الفئات العمرية

ما هو موضوع الدراسة البحثية؟
إن غرض هذا المشروع البحثي/ الاستبيان عبر الإنترنت، هو لمعرفة ماالذي يؤدي إلى نية الشراء وتبني التجارة الإلكترونية في مواقع التواصل الاجتماعي في المملكة العربية السعودية.
لقد تمت دعوتك للمشاركة لأهمية وجهة نظر العامة، سواء كانوا مستهلكين أم لا، مهمة جداً لدراسة ظاهرة التجارة الإلكترونية عبر وسائل التواصل الاجتماعي

من الذي يجري هذا البحث؟
اسمي عبد الرحمن انديجاني، باحث دكتوراه في كلية الهندسة وتقنية المعلومات جامعة سيدني للتكنولوجيا.
مشرفتي الدكتورة كي يونج كانغ، وبريدها الإلكتروني: **Kyeong.Kang@uts.edu.au**

معايير التضمين/الاستبعاد
قبل أن تقرر أن تشارك في هذه الدراسة البحثية، نحتاج إلى التأكد من ملائمتك للمشاركة فيها
يجب أن يكون المشاركين مستخدمين لمنصات مواقع التواصل الاجتماعي.

هل يجب علي المشاركة في هذه الدراسة البحثية؟
تُعتبر المشاركة في هذه الدراسة تطوعية. للمشارك الحرية الكاملة في المشاركة من عدمها.
إذا قررت المشاركة، سأقوم بدعوتك للإجابة بعناية على استطلاع عبر الأنترنت.
تستطيع أن تتوقف عن المشاركة في أي وقت، والتوقف كذلك عن إكمال الاستطلاع دون أي عواقب.

هل هناك أي مخاطر أو مضايقات؟
لا نتوقع أن يسبب هذا الاستبيان أي أذى أو مضايقة للمشارك. ولكن، إذا شعرت بعدم الارتياح كنتيجة للمشاركة في هذه الدراسة فيمكنك إخطار الباحث عبر ايمله **Abdulrahman.Andijani@student.uts.edu.au** وسوف يقدم لك المساعدة.

ماذا سيحدث للمعلومات التي جُمعت عني؟
سيتم التعامل مع معلوماتك بسرية تامة، ولن يتم ذكر اسمك على الإطلاق، أو أي معلومة تحدد هويتك. سيتم استخدام البيانات الخاصة بك لغرض الدراسة فقط، ولن يتم الكشف عنها إلا بإذن منك، باستثناء ما يقتضيه القانون.
ننوي مناقشة ونشر النتائج في جامعة التكنولوجيا بسيدني، والأوراق والمجلات العلمية، وكذلك المؤتمرات.

ماذا لو كان لدي تساؤلات أو شكوى؟
إذا كان لديك تساؤلات بخصوص البحث، والتي تعتقد أنني أنا أو مشرفي البحثي نستطيع مساعدتك لحلها، فلا تتردد بالتواصل على **Abdulrahman.Andijani@student.uts.edu.au** أو**Kyeong.Kang@uts.edu.au**
أما إذا أردت التحدث مع شخص ليس له علاقة بالبحث، يمكنك الاتصال بمسؤول أخلاقيات البحث على هاتف 0295149772 أو على البريد الإلكتروني Research.ethics@uts.edu.au ، مع الرقم [ETH22-7027].

هل أنت على استعداد للمشاركة في هذا الدراسة؟
نعم
لا

Appendix IIA: Questionnaire (English)

Gender	Male
	Female
Age	18-35
	36-50
	51 and above
Education	High School
	Bachelor's degree
	Master's degree
	PhD degree
How long have you been using social commerce websites for online shopping?	Less than 1 year
	1-3 years
	4-6 years
	More than 6 years

Questions 1-to-46 are related with the below **factors**: please rate the

extent to which you agree with each statement (mark **[x]** only one option)

PE	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I find social commerce sites very useful in the online purchasing process.	1	2	3	4	5
2.	Using social commerce sites increases my chances of achieving things that are important to me in the online purchasing process.	1	2	3	4	5
3.	Using social commerce sites helps me accomplish things more quickly in the online purchasing	1	2	3	4	5
4.	I can save time when I use social commerce sites in the online purchasing process.	1	2	3	4	5

EE	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
5.	Learning how to use social commerce sites for online purchases is easy for me.	1	2	3	4	5
6.	My interaction with social commerce sites for online purchases is clear and understandable.	1	2	3	4	5
7.	I find social commerce sites for online purchases are easy to use.	1	2	3	4	5
8.	It is easy for me to become skillful at using social commerce sites for online purchases.	1	2	3	4	5

SI	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
9.	People who are important to me think that I should use social commerce sites for online purchases.	1	2	3	4	5
10.	People who influence my behavior think that I should use social commerce sites for online purchases.	1	2	3	4	5

11.	People whose opinions that I value, prefer that I should use social commerce sites for online purchases.	1	2	3	4	5
FC	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
12.	I have the resources necessary to use social commerce sites for online purchases.	1	2	3	4	5
13.	I have the knowledge necessary to use social commerce sites for online purchases.	1	2	3	4	5
14.	I feel comfortable using social commerce sites for online purchases.	1	2	3	4	5
HM	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15.	Using social commerce sites for online purchases is fun.	1	2	3	4	5
16.	Using social commerce sites for online purchases is enjoyable.	1	2	3	4	5
17.	Using social commerce sites for online purchases is very entertaining.	1	2	3	4	5
PV	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
18.	Social commerce is reasonably priced.	1	2	3	4	5
19.	Social commerce is a good value for the money.	1	2	3	4	5
20.	At the current price, social commerce provides a good value.	1	2	3	4	5
HT	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	strongly Agree
21.	The use of social commerce sites for online purchases has become habit for me.	1	2	3	4	5
22.	I am addicted to using social commerce sites for online purchases.	1	2	3	4	5
23.	I must use social commerce sites for online purchases.	1	2	3	4	5
24.	Using social commerce sites for online purchases has become natural to me.	1	2	3	4	5
PI	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
25.	I intend to continue using social commerce in the future.	1	2	3	4	5
26.	I will always try to use social commerce in my daily life.	1	2	3	4	5
27.	I plan to continue to use social commerce frequently.	1	2	3	4	5

Trust	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
28.	Promises made by social commerce sites are likely to be reliable.	1	2	3	4	5
29.	I do not doubt the honesty of social commerce sites.	1	2	3	4	5
30.	I expect that the advice given by social commerce sites is their best judgement.	1	2	3	4	5
31.	I believe social commerce sites have my information safety in minds.	1	2	3	4	5
32.	Social commerce sites give me an impression that they keep my privacy information safe.	1	2	3	4	5
33.	Social commerce sites (such as Facebook, MySpace, Twitter or others) are trustworthy.	1	2	3	4	5
RR	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
34.	I feel my friends' recommendations are generally frank.	1	2	3	4	5
35.	I feel my friends' recommendations are generally reliable.	1	2	3	4	5
36.	Overall, my friends' recommendations are trustworthy.	1	2	3	4	5
37.	I trust my friends on social commerce sites and share my status, pictures with them.	1	2	3	4	5
FOC	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
38.	I feel my friends on forums and communities are generally frank.	1	2	3	4	5
39.	I feel my friends on forums and communities reliable.	1	2	3	4	5
40.	Overall, my friends on forums and communities are trustworthy.	1	2	3	4	5
41.	I trust my friends on forums and communities and share my status, pictures with them.	1	2	3	4	5
RAR	Please rate the **extent to which you agree** with each statement (mark **[x]** only one option)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
42.	I feel my friends rating and reviews are generally frank.	1	2	3	4	5
43.	I feel my friends rating and reviews reliable.	1	2	3	4	5
44.	Overall, my friends' rating and reviews are trustworthy.	1	2	3	4	5
45.	I trust my friends on rating and reviews and share my status, pictures with them.	1	2	3	4	5
Use exp.	Please rate the extent to which you agree with each statement (mark **[x]** only one option)					

46.	How often do you use social commerce websites for online purchases?	i) Never used.
		ii) Once.
		iii) 2 –5 times.
		iv) Once a month.
		v) Twice a month.
		vi) Once a week.
		vii) More than once a week.

Appendix IIB: Questionnaire (Arabic)

					ذكر	لجنس
					أنثى	
					18-35	العمر
					36-50	
					أكثر من 51	
					الثانوية	التعليم
					بكالوريوس	
					ماجستير	
					دكتوراة	
					منذ أقل من سنة	منذ متى وأنت تستخدم مواقع التواصل الاجتماعي من أجل التسوق عبر الانترنت؟
					من 1 – 3 سنوات	
					من 4 – 6 سنوات	
					أكثر من 6 سنوات	

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة من 1- 4 تتعلق **بالأداء المتوقع**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أجد أن التجارة الإلكترونية عبر منصات التواصل الاجتماعي مفيدة فى عملية الشراء.	1.
5	4	3	2	1	يعزز إستخدام التجارة الإلكترونية عبر منصات التواصل فرصي في تحقيق أشياء مهمة بالنسبة لى.	2.
5	4	3	2	1	يساعدني إستخدام التجارة الإلكترونية في منصات التواصل الاجتماعي فى إنجاز أموري بشكل أسرع.	3.
5	4	3	2	1	يمكنني توفير الوقت عندما أقوم بشراء المنتجات عبر منصات التواصل الاجتماعي.	4.

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 5- 8 تتعلق **بالمجهود المتوقع**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	تعلم كيفية الشراء عبر منصات التواصل الاجتماعي هو أمر سهل بالنسبة لي.	5.
5	4	3	2	1	يعد التعامل مع عمليات التجارة الإلكترونية عبر منصات التواصل الاجتماعي واضح و مفهوم.	6.
5	4	3	2	1	أجد أن الشراء عبر منصات وسائل التواصل الاجتماعي أمر سهل.	7.
5	4	3	2	1	من السهل بالنسبة لى أن أصبح ماهراً فى التعامل مع التجارة الإلكترونية عبر منصات التواصل الاجتماعي.	8.

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 9- 11 تتعلق **بتأثير المجتمع**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	يعتقد الأشخاص المقربون لي بأن علي شراء المنتجات عبر منصات التواصل الاجتماعي.	9.
5	4	3	2	1	يعتقد الأشخاص المؤثرين في حياتي بأنه ينبغي شراء المنتجات عبر منصات التواصل الاجتماعي.	10.
5	4	3	2	1	يفضل الأشخاص الذين أقدر آرائهم بأنه ينبغي أن أشتري المنتجات عبر منصات التواصل الاجتماعي.	11.

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 12- 14 تتعلق **بحالات التسهيل أو تسهيل الظروف المحيطة**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أمتلك الوسائل الضرورية الكافية عن كيفية الشراء عبر منصات التواصل الاجتماعي.	12.
5	4	3	2	1	لدى المعرفة الكافية عن كيفية الشراء عبر منصات التواصل الاجتماعي.	13.

5	4	3	2	1	أشعر بالإرتياح حين الشراء عبر منصات التواصل الاجتماعي.	.14
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 15- 17 تتعلق **بالتحفيز الممتع**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	يعتبر استخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي عملية مرحة.	.15
5	4	3	2	1	يعتبر استخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي عملية ممتعة.	.16
5	4	3	2	1	يعتبراستخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي عملية مسلية جداً.	.17
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 18-20 تتعلق **بالقيمة المالية**: : من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	تتسم أسعار المنتجات حين التسوق عبر منصات التواصل الاجتماعي بأنها معقولة ومقبولة.	.18
5	4	3	2	1	يتلائم سعر المنتجات عبر منصات التواصل الاجتماعي مع جودتها.	.19
5	4	3	2	1	بالاسعار الحالية فإن التجارة الالكترونية عبر وسائل التواصل الاجتماعي توفر قيمة جيدة.	.20
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 21- 24 تتعلق **بالعادات**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أصبح عادة بالنسبة لي استخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي.	.21
5	4	3	2	1	أنا مدمن على شراء المنتجات عبر مواقع التواصل الاجتماعي.	.22
5	4	3	2	1	يجب علي شراء المنتجات عبر منصات التواصل الاجتماعي.	.23
5	4	3	2	1	أصبح من الطبيعي بالنسبة لي الشراء عبر منصات التواصل الاجتماعي.	.24
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 25- 27 تتعلق **بنية الشراء**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أنوى الاستمرار فى استخدام التجارة الالكترونية عبر منصات التواصل الاجتماعي فى المستقبل.	.25
5	4	3	2	1	سأحاول دائماً استخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي في حياتى اليومية.	.26
5	4	3	2	1	أنوي الاستمرار فى استخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي بشكل متكرر.	.27
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 28- 33 تتعلق **بالثقة** : من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	يمكنني الثقة غالبا بالمعلومات المقدمة عن المنتجات عبر منصات التواصل الاجتماعي.	.28
5	4	3	2	1	لا أشك في مصداقية الحسابات التجارية عبر منصات التواصل الاجتماعي.	.29
5	4	3	2	1	أتوقع أن الحسابات التجارية عبر منصات التواصل الاجتماعي تتسم بالمصداقية العالية.	.30
5	4	3	2	1	أعتقد أن بياناتى الشخصية آمنة لدى الحسابات التجارية عبر منصات التواصل الاجتماعي.	.31
5	4	3	2	1	تشعرني الحسابات التجارية عبر منصات التواصل الاجتماعي بأن بياناتي الشخصية ذات خصوصية وآمنة.	.32
5	4	3	2	1	من الممكن الوثوق في منصات التواصل الاجتماعي لغرض التجارة الالكترونية (مثل فيس بوك, ماى سبيس, تويتر, أو أى منصة أخرى).	.33

أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 34- 37 تتعلق **بالتوصيات و التوجيهات**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أشعر أن توصيات أصدقائي بشكل عام صادقة.	34.
5	4	3	2	1	أشعر أن توصيات أصدقائي بشكل عام يمكن الإعتماد عليها.	35.
5	4	3	2	1	بشكل عام، يمكن الوثوق بالتوصيات المقدمة من أصدقائي.	36.
5	4	3	2	1	أثق في أصدقائي عبر منصات مواقع التواصل الاجتماعي وأشارك لحظاتي وصوري معهم.	37.
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة 38- 41 تتعلق **بالمنتديات و المجتمعات**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أشعر أن أصدقائي على المنتديات و المجتمعات بشكل عام صريحيين.	38.
5	4	3	2	1	أشعر بأنه يمكن الاعتماد على أصدقائي في المنتديات والمجتمعات.	39.
5	4	3	2	1	بشكل عام، يمكن الوثوق بأصدقائي في المنتديات والمجتمعات.	40.
5	4	3	2	1	أثق بأصدقائى في المنتديات و المجتمعات وأشارك حالاتى و صورى معهم.	41.
أوافق بشدة	أوافق	محايد	لا أوافق	لا أوافق بشدة	الأسئلة من 42- 45 متعلقة **بالتقييم و الآراء**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
5	4	3	2	1	أشعر أن تقييمات و آراء أصدقائى صريحة بشكل عام.	42.
5	4	3	2	1	أشعر أن تقييمات و آراء أصدقائى يمكن الإعتماد عليها.	43.
5	4	3	2	1	بشكل عام، تقييمات و آراء أصدقائى موثوقة.	44.
5	4	3	2	1	أثق فى تقييمات و آراء أصدقائى وأشارك حالاتى و صورى معهم.	45.

	السؤال 46 يتعلق **باستخدام التجارة الإلكترونية عبر منصات التواصل الاجتماعي**: من فضلك قيم إلى أى مدى تتفق مع كل عبارة (قم بتحديد خيار واحد فقط بالعلامة x)	
1) لا أستخدمها مطلقاً. 2) مرة واحده فقط. 3) من 2- 5 مرات. 4) مره واحده شهرياً. 5) مرتين شهريا. 6) مره واحده أسبوعياً. 7) أكثر من مره أسبوعياً	كم مرة تشتري المنتجات عبر مواقع التواصل الاجتماعي عادةً؟	46.

Appendix III: Respondents' demographic distribution

Figure 1a: Respondents' gender distribution
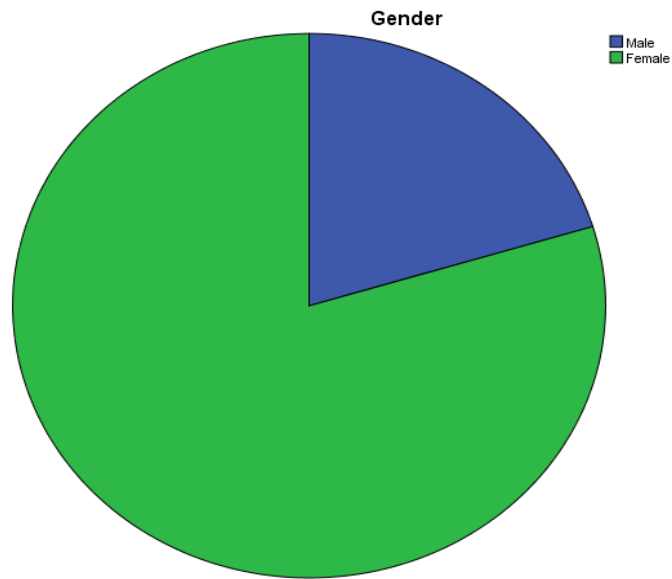
Figure 1b: Respondents' age information
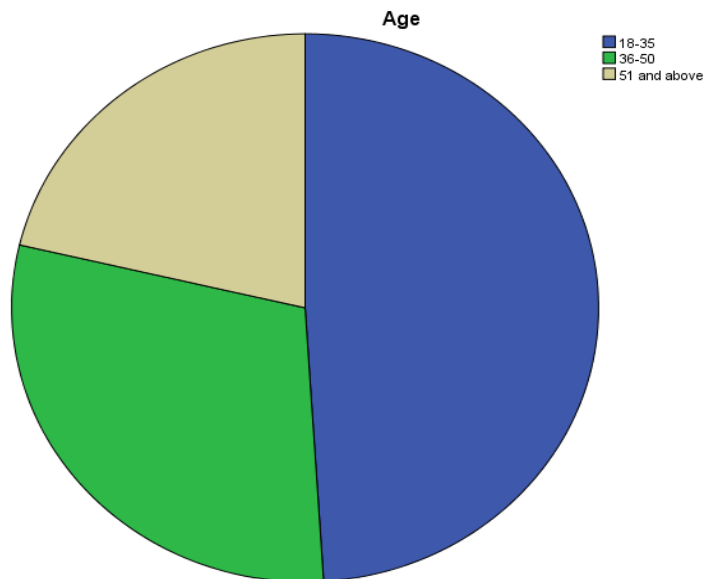
Figure 1c: Respondents' education information
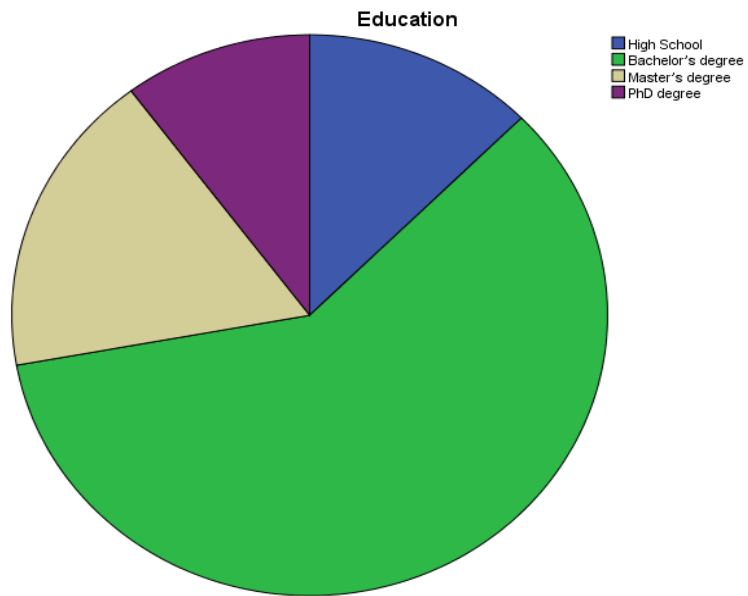
Figure 1d: Respondents' use experience information
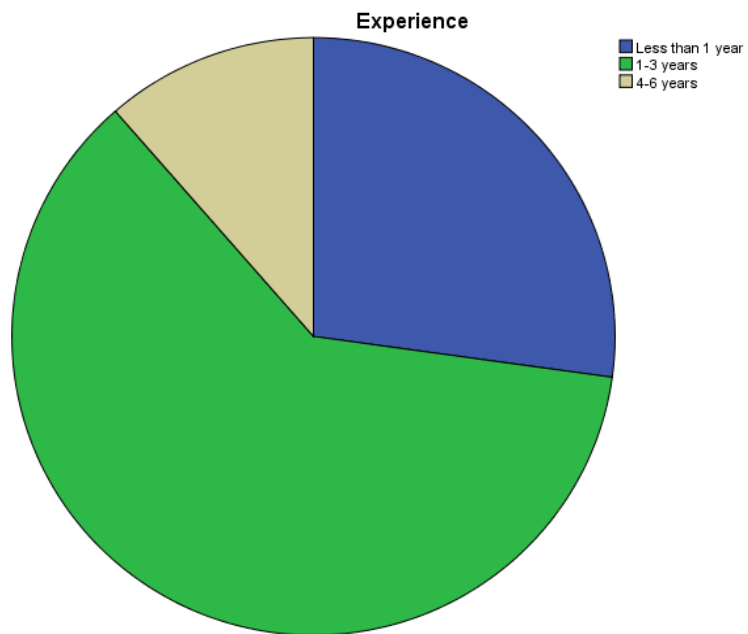
Appendix IV: Data Analysis

Table 1A: Item analysis of the Performance Expectancy scale

	M	SD	I-T r	Deleted α
I find social commerce sites very useful in the online purchasing process.	3.58	.94	.48	.78
Using social commerce sites increases my chances of achieving things that are important to me in the online purchasing process.	3.58	.89	.46	.78
Using social commerce sites helps me accomplish things more quickly in the online purchasing	4.06	.85	.45	.79
I can save time when I use social commerce sites in the online purchasing process.	3.60	.99	.46	.79

Note. Coefficient alpha for the scale as a whole was 0.868.

Table 1B: Item analysis of the Effort Expectancy scale

	M	SD	I-T r	Deleted α
Learning how to use social commerce sites for online purchases is easy for me.	3.36	1.09	.30	.77
My interaction with social commerce sites for online purchases is clear and understandable.	3.28	.94	.43	.70
I find social commerce sites for online purchases are easy to use.	3.26	.88	.53	.65
It is easy for me to become skillful at using social commerce sites for online purchases.	3.60	.99	.30	.74

Note. Coefficient alpha for the scale as a whole was 0.770.

Table 1C: Item analysis of the Social Influence scale

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	M	SD	I-T r	Deleted α
People who are important to me think that I should use social commerce sites for online purchases.	3.33	1.07	.24	.68
People who influence my behavior think that I should use social commerce sites for online purchases.	3.53	1.17	.39	.45
People whose opinions that I value, prefer that I should use social commerce sites for online purchases.	3.52	1.12	.27	.66

Note. Coefficient alpha for the scale as a whole was 0.784.

Table 1D: Item analysis of the Facilitating Conditions scale

	M	SD	I-T r	Deleted α
I have the resources necessary to use social commerce sites for online purchases.	3.70	1.01	.614	.720
I have the knowledge necessary to use social commerce sites for online purchases.	3.56	.92	.774	.580
I feel comfortable using social commerce sites for online purchases.	3.90	.81	.526	.834

Note. Coefficient alpha for the scale as a whole was 0.701.

Table 1E: Item analysis of the Hedonic Motivation scale

	M	SD	I-T r	Deleted α
Using social commerce sites for online purchases is fun.	3.51	1.01	.30	.74
Using social commerce sites for online purchases is enjoyable.	3.84	.88	.47	.56
Using social commerce sites for online purchases is very entertaining.	3.60	1.11	.37	.69

Note. Coefficient alpha for the scale as a whole was 0.751.

Table 1F: Item analysis of the Price Value scale

	M	SD	I-T r	Deleted α
Social commerce is reasonably priced.	3.49	1.10	.50	.66
Social commerce is a good value for the money.	3.37	1.21	.56	.53
At the current price, social commerce provides a good value.	3.19	1.21	.24	.82

Note. Coefficient alpha for the scale as a whole was 0.763.

Table 1G: Item analysis of the Habit scale

	M	SD	I-Tr	Deleted α
The use of social commerce sites for online purchases has become habit for me.	3.59	.90	.26	.61
I am addicted to using social commerce sites for online purchases.	3.95	.86	.59	.35
I must use social commerce sites for online purchases.	3.71	.99	.57	.43
Using social commerce sites for online purchases has become natural to me.	3.98	.87	.22	.64

Note. Coefficient alpha for the scale as a whole was 0.680.

Table 1H: Item analysis of the Purchase Intention Scale

	M	SD	I-T r	Deleted α
I intend to continue using social commerce in the future.	3.65	.98	.44	.73
I will always try to use social commerce in my daily life.	3.52	.99	.57	.53
I plan to continue to use social commerce frequently.	3.92	.84	.34	.79

Note. Coefficient alpha for the scale as a whole was 0.781.

Table 1I: Item Analysis of the trust scale

	M	SD	I-T r	Deleted α
Promises made by social commerce sites are likely to be reliable.	3.41	.52	.40	.60
I do not doubt the honesty of social commerce sites.	3.46	.59	.40	.57
I expect that the advice given by social commerce sites is their best judgement.	3.41	.55	.27	.58
I believe social commerce sites have my information safety in minds.	3.41	.58	.31	.57
Social commerce sites give me an impression that they keep my privacy information safe.	3.33	.64	.43	.61
Social commerce sites (such as Facebook, MySpace, Twitter or others) are trustworthy.	3.28	.68	.45	.65

Note. Coefficient alpha for the scale as a whole was 0.644.

Table 1J: Item analysis of recommendations and referrals scale

	M	SD	I-T r	Deleted α
I feel my friends' recommendations are generally frank.	3.22	1.22	.17	.68
I feel my friends' recommendations are generally reliable.	3.30	.96	.27	.58
Overall, my friends' recommendations are trustworthy.	3.71	1.02	.35	.55
I trust my friends on social commerce sites and share my status, pictures with them.	3.70	.99	.27	.62

Note. Coefficient alpha for the scale as a whole was 0.680.

Table 1K: Item analysis of the forums and communities scale

	M	SD	I-T r	Deleted α
I feel my friends on forums and communities are generally frank.	3.98	.870	.19	.69
I feel my friends on forums and communities reliable.	3.70	1.01	.31	.58
Overall, my friends on forums and communities are trustworthy.	3.56	.93	.42	.52
I trust my friends on forums and communities and share my status, pictures with them.	3.90	.82	.28	.67

Note. Coefficient alpha for the scale as a whole was 0.691.

Table 1L: Item analysis of the rating and reviews scale

	M	SD	I-T r	Deleted α
I feel my friends rating and reviews are generally frank.	3.33	.89	.54	.73
I feel my friends rating and reviews reliable.	3.56	.86	.50	.74
Overall, my friends' rating and reviews are trustworthy.	3.86	.84	.33	.79
I trust my friends on rating and reviews and share my status, pictures with them.	3.63	1.05	.44	.75

Note. Coefficient alpha for the scale as a whole was 0.809.

Table IM: K-S Test of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PE	.110	596	.000	.969	596	.000
EE	.124	596	.000	.979	596	.000
SI	.134	596	.000	.963	596	.000
FC	.177	596	.000	.946	596	.000
HM	.156	596	.000	.937	596	.000
HT	.115	596	.000	.955	596	.000
PV	.144	596	.000	.944	596	.000
PI	.146	596	.000	.958	596	.000
TR	.103	596	.000	.965	596	.000
FCOM	.126	596	.000	.980	596	.000
RAR	.112	596	.000	.969	596	.000
RR	.149	596	.000	.944	596	.000
UBEH	.291	596	.000	.854	596	.000

a. Lilliefors Significance Correction

Table 1N: Mean, Standard deviation on Skewness and Kurtosis values of variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PE	596	1.00	5.00	3.6668	.76025	-.507	.112	.206	.224
EE	596	1.25	5.00	3.3037	.70450	.014	.112	.113	.224
SI	596	1.33	5.00	3.4196	.86760	-.432	.112	-.276	.224
FC	596	1.00	5.00	3.5916	.79922	-.730	.112	.454	.224
HM	596	1.00	5.00	3.6035	.83620	-.783	.112	.520	.224
HT	596	1.00	5.00	3.6905	.77133	-.706	.112	.669	.224
PV	596	1.00	5.00	3.5782	.83334	-.781	.112	.799	.224
PI	596	1.00	5.00	3.7011	.76796	-.507	.112	.040	.224
TR	596	1.00	5.00	3.5921	.66428	-.265	.112	.738	.224
FCOM	596	1.25	5.00	3.3563	.71785	-.037	.112	-.185	.224
RAR	596	1.00	5.00	3.6716	.74844	-.498	.112	.125	.224
RR	596	1.00	5.00	3.4774	.78866	-.821	.112	.513	.224
UBEH	596	1	5	3.77	.987	-.769	.112	.155	.224
Valid N (listwise)		596							

Table 1O: Leven's test of homogeneity of variances

	Levene Statistic	df1	df2	Sig.
PE	.395	1	595	.530
EE	10.237	1	595	.001
SI	.006	1	595	.940
FC	.643	1	595	.486
HM	.298	1	595	.586
HT	2.080	1	595	.150
PV	.493	1	595	.483
PI	.364	1	595	.546
TR	1.165	1	595	.281
FCOM	.606	1	595	.715
RAR	.219	1	595	.640
RR	.139	1	595	.710
UBEH	.530	1	595	.327

Table 1P: VIF and tolerance values for each construct

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Performance expectancy	.311	2.211
Effort expectancy	.389	2.025
Social influence	.636	1.549
Facilitating conditions	.243	2.941
Hedonic motivation	.984	1.016
Habit	.440	2.034
Price value	.645	1.358
Purchase intention	.381	1.517
User trust	.652	1.411
Forums and communities	.194	2.157
Recommendations and referrals	.466	2.144
Ratings and reviews	.561	1.782

Table 1Q: Factor Loading Values for All Construct Variables

Constructs	Items	Factor lodgings	Cronbach alpha	CR	AVE
Performance Expectancy (PE)	PE1	0.836	.79	.863	.613
	PE2	0.790			
	PE3	0.789			
	PE4	0.711			
Effort Expectancy (EE)	EE1	0.636	.70	.807	.512
	EE2	0.752			
	EE3	0.725			
	EE4	0.744			
Social Influence (SI)	SI1	0.726	.72	.841	.638
	SI2	0.850			
	SI3	0.817			
Facilitating conditions (FC)	FC1	0.795	.74	.851	.656
	FC2	0.807			
	FC3	0.827			
Hedonic motivation (HM)	HM1	0.681	.72	.765	.537
	HM2	0.723			
	HM3	0.965			
Habit (HT)	HT1	0.701	.74	.836	.562
	HT 2	0.783			
	HT 3	0.818			
	HT 4	0.694			
Price Valve (PV)	PV1	0.869	.75	.854	.663
	PV2	0.838			
	PV2	0.728			
Purchase Intention (PI)	PI1	0.863	.76	.860	.673
	PI2	0.833			
	PI3	0.762			
Recommendations & Referrals (RR)	RR1	0.697	.72	.824	.540
	RR2	0.701			
	RR3	0.762			
	RR4	0.779			
Rating & Reviews (RAR)	RAR1	0.826	.79	.862	.611
	RAR2	0.757			
	RAR3	0.799			
	RAR4	0.761			
Forums & Communities (FCOM)	FOCO 2	0.783	.71	.825	.610
		0.783			
	FOCO 3				
	FOCO 4	0.755			
Trust	Trust1	0.790	.83	.882	.653

Trust2	0.754
Trust3	0.832
Trust5	0.852

Table 1R: Cross loadings

EE1	**0.636**	0.255	0.288	0.106	0.476	0.352	0.268	0.191	0.236	0.215	0.243	0.200	0.225
EE2	**0.752**	0.485	0.557	0.066	0.312	0.383	0.306	0.200	0.259	0.331	0.258	0.138	0.266
EE3	**0.725**	0.502	0.568	0.067	0.327	0.458	0.310	0.205	0.348	0.374	0.320	0.172	0.270
EE4	**0.744**	0.512	0.551	-0.021	0.358	0.488	0.329	0.237	0.338	0.262	0.403	0.231	0.291
FC1	0.498	**0.795**	0.735	0.048	0.438	0.279	0.414	0.260	0.286	0.528	0.246	0.305	0.392
FC2	0.481	**0.807**	0.727	0.056	0.517	0.361	0.436	0.270	0.383	0.573	0.282	0.272	0.357
FC3	0.529	**0.827**	0.722	-0.027	0.514	0.417	0.506	0.345	0.424	0.404	0.337	0.371	0.380
FCOM2	0.534	0.686	**0.783**	0.057	0.404	0.273	0.405	0.231	0.265	0.460	0.219	0.198	0.363
FCOM3	0.538	0.715	**0.807**	0.059	0.433	0.365	0.420	0.258	0.379	0.492	0.252	0.179	0.328
FCOM4	0.561	0.706	**0.755**	-0.030	0.457	0.372	0.433	0.289	0.373	0.319	0.309	0.278	0.367
HM1	-0.007	-0.010	-0.011	**0.681**	-0.026	-0.009	0.030	0.002	-0.039	0.028	-0.037	0.031	0.028
HM2	0.017	0.008	0.016	**0.723**	-0.040	-0.010	0.007	-0.035	-0.034	-0.031	-0.083	0.004	0.029
HM3	0.086	0.037	0.048	**0.965**	0.046	0.159	0.101	0.113	0.106	0.058	0.069	0.054	0.083
HT1	0.334	0.419	0.377	0.031	**0.701**	0.293	0.317	0.141	0.325	0.326	0.277	0.378	0.289
HT2	0.385	0.528	0.490	-0.024	**0.783**	0.347	0.427	0.173	0.343	0.401	0.262	0.337	0.352
HT3	0.366	0.489	0.426	-0.014	**0.818**	0.375	0.442	0.246	0.390	0.505	0.248	0.416	0.400
HT4	0.436	0.375	0.355	0.103	**0.694**	0.341	0.407	0.243	0.362	0.276	0.285	0.354	0.364
PE1	0.567	0.359	0.372	0.154	0.377	**0.836**	0.624	0.413	0.603	0.247	0.477	0.338	0.381
PE2	0.458	0.318	0.315	0.059	0.355	**0.790**	0.612	0.384	0.581	0.231	0.435	0.299	0.337
PE3	0.403	0.350	0.332	0.094	0.346	**0.789**	0.573	0.384	0.581	0.268	0.402	0.367	0.325
PE4	0.413	0.359	0.340	0.107	0.353	**0.711**	0.397	0.304	0.550	0.279	0.477	0.358	0.334
PI1	0.422	0.529	0.529	0.118	0.491	0.616	**0.863**	0.507	0.608	0.345	0.401	0.433	0.493
PI2	0.320	0.449	0.425	0.028	0.433	0.565	**0.833**	0.438	0.541	0.284	0.328	0.395	0.437
PI3	0.294	0.392	0.353	0.077	0.389	0.587	**0.762**	0.451	0.572	0.311	0.302	0.457	0.382
PV1	0.324	0.394	0.384	0.089	0.308	0.471	0.556	**0.869**	0.434	0.409	0.335	0.310	0.333
PV2	0.217	0.240	0.229	0.056	0.185	0.355	0.433	**0.838**	0.347	0.363	0.249	0.231	0.208
PV3	0.138	0.219	0.153	0.083	0.142	0.321	0.371	**0.728**	0.336	0.380	0.211	0.320	0.224
RAR1	0.393	0.411	0.407	0.102	0.407	0.605	0.638	0.433	**0.826**	0.290	0.324	0.360	0.377
RAR2	0.325	0.345	0.331	0.005	0.354	0.592	0.598	0.363	**0.757**	0.239	0.325	0.319	0.305
RAR3	0.278	0.332	0.305	0.076	0.351	0.580	0.564	0.392	**0.779**	0.271	0.267	0.377	0.315
RAR4	0.296	0.321	0.311	0.055	0.370	0.527	0.379	0.248	**0.761**	0.276	0.338	0.354	0.306
RR1	0.198	0.287	0.214	-0.005	0.503	0.249	0.310	0.420	0.294	**0.697**	0.238	0.320	0.222
RR2	0.257	0.340	0.301	0.106	0.361	0.218	0.281	0.351	0.243	**0.698**	0.212	0.275	0.224
RR3	0.378	0.566	0.526	0.065	0.295	0.210	0.272	0.343	0.202	**0.762**	0.178	0.228	0.282
RR4	0.367	0.572	0.519	0.000	0.360	0.269	0.272	0.291	0.281	**0.779**	0.230	0.202	0.251
SI1	0.445	0.326	0.323	0.039	0.283	0.478	0.318	0.268	0.357	0.258	**0.726**	0.283	0.343
SI2	0.355	0.309	0.283	0.043	0.328	0.491	0.372	0.293	0.341	0.261	**0.850**	0.368	0.385
SI3	0.236	0.221	0.186	0.023	0.233	0.381	0.317	0.235	0.259	0.172	**0.817**	0.316	0.303
TR1	0.178	0.287	0.194	0.065	0.406	0.337	0.386	0.240	0.344	0.275	0.324	**0.790**	0.375
TR2	0.200	0.358	0.217	-0.006	0.426	0.247	0.264	0.199	0.276	0.276	0.245	**0.754**	0.310

| TR3 | 0.190 | 0.284 | 0.216 | 0.026 | 0.379 | 0.374 | 0.486 | 0.332 | 0.393 | 0.241 | 0.328 | **0.832** | 0.545 |
| TR4 | 0.261 | 0.354 | 0.263 | 0.073 | 0.405 | 0.399 | 0.498 | 0.332 | 0.418 | 0.315 | 0.391 | **0.852** | 0.757 |

Appendix V: List of abbreviations

ICT	Information and Communication Technology
SNSs	Social networking sites
SM	Social media
PC	Personal computers
GMI	Global Media Insight
CITC	Communications, Space and Technology Commission
SME	Small and medium enterprises
UTUAT	Unified Theory of Acceptance and Use of Technology
UTUAT2	Extended Unified Theory of Acceptance and Use of Technology
WOM	Word of mouth
sWOM	Social Word of mouth
eWOM	Electronic Word of mouth
PEU	Perceived ease of use
PE	Performance Expectancy
EE	Effort Expectancy
SI	Social Influence
FC	Facilitating Conditions
HM	Hedonic motivation
HT	HABIT
PV	Price value
S-Commerce	Social-Commerce
SCC	Social Commerce Constructs
PI	Purchase intentions
RR	Ratings and reviews
RAR	Recommendations and referrals
FCOM	Forums and communities
UB	Use behavior
TRA	Theory of Reasoned Action
TAM	Technology Acceptance Model

TPB	Theory of Planned Behavior
IDT	Innovation Diffusion Theory
SCT	Social Cognitive Theory
SIT	Social Identity Theory
SPT	Social Presence theory
SN	Social norms
MM	Motivation Model
SPSS	Statistical Package for the Social Sciences
PLS	Partial least squares
EFA	Exploratory factor analysis
CFA	confirmatory factor analysis
SEM	structural equation modeling
KMO	Kaiser-Mayer-Olkin
VIF	variance inflation factor
CMB	Common method bias
AVE	Average variance extracted
CR	Composite reliability