

Drivers of purchase intention in Instagram Commerce

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Abstract

Purpose – This study aims to analyze the factors that drive purchases via Instagram and contribute to the growth of Instagram Commerce and examine the moderating role of gender, age and experience in Instagram use in the proposed relationship between six variables derived from commitment–trust theory, the technology acceptance model and consumer decision-making theory.

Design/methodology/approach – A survey was completed by respondents after watching a video about Instagram Commerce. A total of 404 valid responses were collected. The research model was analyzed using partial least squares structural equation modeling.

Findings – This study makes numerous contributions to Instagram Commerce and holds significant implications for professionals in the social commerce field. Among other results, we found that trust, attitude, perceived usefulness and alternative evaluation significantly affected consumers' purchase intentions. However, this study found no relationship between trust or ease of use and purchase intention. Finally, it demonstrates the moderating role of gender, age and experience on some of these relationships.

Originality/value – This research centers on an analysis of consumer purchase behavior on Instagram Commerce, taking a highly innovative approach. The particular originality of this study lies in the proposed model of adoption of social commerce via Instagram, based on a critical framework. This study also provides an original analysis of the moderating effect of the classification variables: gender, age and experience in Instagram use.

Keywords Social commerce, Instagram Commerce, Purchase intention, Gender, Age, Experience

Paper type Research paper

Factores que impulsan la intención de compra en Instagram Commerce

Resumen

Objetivo – Los objetivos de la presente investigación son (i) analizar los factores que impulsan las compras a través de Instagram y contribuyen al crecimiento del comercio en Instagram y (ii) examinar el papel moderador del género, la edad y la experiencia en el uso de Instagram sobre la relación propuesta a partir de seis variables derivadas de la Teoría del Compromiso-Confianza, el modelo TAM y la Teoría de la Toma de Decisiones del Consumidor.

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Diseño/metodología/enfoque – Los encuestados completaron una encuesta después de ver un vídeo sobre Instagram Commerce. Se recogieron un total de 404 respuestas válidas. El modelo de investigación se analizó mediante un modelo de ecuaciones estructurales de mínimos cuadrados parciales.

Resultados – El presente estudio hace numerosas contribuciones al Instagram Commerce y tiene importantes implicaciones para los profesionales del campo del comercio social. Entre otros resultados, encontramos que la confianza, la actitud, la utilidad percibida y la evaluación alternativa afectan significativamente a las intenciones de compra de los consumidores. Sin embargo, este estudio no encontró ninguna relación entre la confianza o la facilidad de uso y la intención de compra. Por último, se demuestra el papel moderador del género, la edad y la experiencia en algunas de estas relaciones.

Originalidad – Esta investigación se centra en un análisis del comportamiento de compra de los consumidores en Instagram Commerce, adoptando un enfoque muy innovador. La originalidad particular del trabajo radica en la propuesta de un modelo de adopción del comercio social a través de Instagram, basado en un marco crítico. El estudio también proporciona un análisis original del efecto moderador de las variables de clasificación: género, edad y experiencia en el uso de Instagram.

Palabras clave – Social commerce, Instagram commerce, Intención de compra, Género, Edad, Experiencia

Tipo de artículo – Trabajo de investigación

Instagram商务中购买意愿的驱动因素

摘要

目的 – 本研究的目的是(i)分析推动通过Instagram购买并促进Instagram商务发展的因素; (ii)研究性别、年龄和使用Instagram的经验对源自承诺-信任理论、TAM模型和消费者决策理论的六个变量之间的拟议关系的调节作用。

设计/方法/途径 – 受访者观看了有关Instagram商业的视频后完成了一项调查。共收集到404份有效的回复。研究模型采用偏最小二乘法结构方程模型进行分析。

研究结果 – 本研究对Instagram商务做出了许多贡献,并对社交商务领域的专业人士具有重要意义。在其他结果中,我们发现信任、态度、感知有用性和替代性评价对消费者的购买意向有显著影响。然而,本研究发现信任或易用性与购买意向之间没有关系。最后,它证明了性别、年龄和经验对其中一些关系的调节作用。

原创性 – 这项研究以分析消费者在Instagram商务上的购买行为为中心,采取了一种高度创新的方法。这项研究的独特之处在于提出了一个基于批判性框架的通过Instagram进行社交商务的模型。该研究还对分类变量的调节作用进行了原创性分析:性别、年龄和使用Instagram的经验。

关键词 – 社交商务, Instagram商务, 购买意向, 性别, 年龄, 经验

文章类型 – 研究型论文

1. Introduction

The use of social media has primarily become a mobile activity. [eMarketer report \(2020\)](#) exposed that more than 70% of mobile phone Internet users worldwide use their devices to use social media and more than 80% of social network users worldwide use a mobile device to use social media at least once per month. There are 8.28 billion mobile connections; 4.95 billion are internet users and 4.62 billion users are active on social media. Data show that in 2022, there was an increase in the use of the internet and social media by the world population ([Kemp, 2022](#)).

The importance of image-based social networks has become widespread in recent years ([Liao et al., 2022](#)). Instagram is the fastest-growing social network, with a forecast to reach 1.18 billion users by 2023 ([Statista, 2022](#)). Despite its growing relevance, academic research on Instagram is still scarce ([Kim and Kim, 2019](#)). In this regard, usage motivations ([Sheldon and Bryant, 2016](#)), user engagement ([Casaló et al., 2017](#)), promotions ([Casaló et al., 2021](#)) and the role of influencers ([Casaló et al., 2020](#)) have been analyzed. As social media platforms continue to develop rapidly, an increasing number of users are approaching them to support

their business activities. Instagram is the social media platform of choice concerning company–consumer interactions and Instagram Commerce has been recognized by the literature as a worldwide business phenomenon (Casaló *et al.*, 2021). Today, Instagram is considered as the second-most interactive social media platform after Facebook (Mohsin, 2020). However, according to our research, few studies analyze the use of this social network as a sales channel (Djafarova and Bowes, 2021).

In recent years, electronic commerce (e-commerce) has successfully offered new ways to shop and purchase by means of, for example, social media platforms and websites. The impact of the COVID-19 pandemic has only accelerated the development of e-commerce as a new and fast-growing business model as more companies than ever around the world sell their products on social media and other websites or platforms. Even small- and micro-sized firms are building a presence on social media with business pages that enable them to sell their products worldwide. In response, Instagram and Facebook have recently developed unique features to specifically support small businesses rather than focusing solely on major firms.

Along these lines, the social commerce (s-commerce) arises based on the use of social networks (Busalim, 2016; Herzallah *et al.*, 2021). Precisely, this new type of commerce is defined as a new type of online platform that allows customers to share experiences, opinions and information about where, what and from whom to buy (Xu and Liu, 2019). On the other hand, it can also be defined as a new type of online platform that allows customers to share experiences, opinions and information about where, what and from whom to buy (Xu and Liu, 2019). While e-commerce focuses on exchange activities in digital environments, s-commerce is characterized by exchange activities that have a clearly defined social element (Yadav *et al.*, 2013).

The overall aim of the present research, then, is to analyze purchase intention on Instagram based on a set of antecedents derived from a literature review. The study can be considered innovative in five main respects. First, while research on s-commerce has grown in recent years, research dealing with Instagram Commerce is still in its infancy, because of the novelty and changeability of the purchasing system that this social network offers its users (Nedra *et al.*, 2019). Second, according to numerous authors, Instagram commerce is set to become the primary sales network of the future – hence, the scholarly interest in analyzing it (Assadam, 2020). Third, a review of the principal classical theories is undertaken in the present study and new antecedents are added to define the theoretical frameworks within a broader and more integrated approach. Fourth, we analyze the moderating effect of age, gender and experience on some of the proposed relationships. Finally, the study offers a series of recommendations to firms involved in managing sales via social networks.

2. Theoretical background

The scientific literature has identified various theories and concepts of purchase intention and models that analyze intention more generally, most of which are addressed in social psychology research to assess individuals' behavior when approaching an innovation. With regard to consumer behavior in an online context, the present research draws on a literature review focused on the most up-to-date models and theories in the marketing and information technology fields and based on: the technology acceptance model (TAM) from the work of Davis (1989); commitment–trust theory (CTT), developed by Morgan and Hunt (1994); and consumer decision-making theory (Engel *et al.*, 1995). Additional variables pertinent to the context of the study are also incorporated.

2.1 Technology acceptance model

The TAM is considered one of the most effective theories for predicting consumer intention to use a system. The TAM was developed by Davis (1989) to hypothesize the usage behavior relating to computer technology and was adapted from Fishbein and Ajzen's (1975) theory of reasoned action. According to the TAM, technology use intention can lead to the adoption or rejection of new technology. The TAM is widely considered a foundational theory.

2.2 Commitment–trust theory

According to Moorman *et al.* (1992), CTT explains the development of long-term relationships between exchange parties. Commitment means a “stable desire” between parties to sustain an important and valued relationship. Trust is a multidisciplinary concept that arises once one party has confidence in an exchange partner's honesty and reliability. The main principle of CTT is that founding and supporting business relationships between exchange parties requires the simultaneous adoption of relationship commitment and trust as essential – and inseparable – variables (Wang *et al.*, 2016). The CTT of relationship marketing cites trust and a sense of commitment as the two fundamental building blocks on which to base powerful relationship marketing (Morgan and Hunt, 1994).

2.3 Consumer decision-making theory

To better understand the decision-making process and in our case, the purchase on Instagram, the implication of the consumer decision-making theory is proposed. This theoretical approach considers the consumption decision as a problem-solving task aimed at a specific consumption choice (Olson and Reynolds, 2001). This theory affirms that when consumers search for information from their own sources, they will evaluate their choices by purchasing from a variety of products (Hennig-Thurau *et al.*, 2004).

2.4 Research hypotheses

2.4.1 The impact of trust. Trust has numerous definitions (Athapaththu and Kulathunga, 2018; Liébana-Cabanillas *et al.*, 2022). Ganguly *et al.* (2010), for example, defined trust as the consumer perceived credibility and benevolence of online stores. In the context of the present study, trust is linked to the feelings, expectations, promises fulfilled and beliefs associated with online interactions, intentions and behaviors.

Trust is a key predictor of positive attitudes toward purchase behavior, which, in turn, can positively impact on purchase intention. Therefore, trust in a company's website positively affects customer attitudes toward the business and ultimately improves intention to purchase its products or services (Bugshan and Attar, 2020). This is particularly salient in the context of s-commerce because the degree of uncertainty is higher online as a consequence of the lack of face-to-face communications and the massive volume of user-generated content (Featherman and Hajli, 2016). Furthermore, some studies have shown a significant relationship between trust and s-commerce use intention (Beyari and Abareshi, 2016). Moreover, trust encourages users to approach s-commerce and overcome any potential challenge or barrier in the process of purchasing products and services online. Recent studies have confirmed that purchase intention is significantly and positively affected by trust in the context of s-commerce adoption (Dabbous *et al.*, 2020). Therefore, the greater the trust, the stronger the s-commerce purchase intention (Sharma *et al.*, 2019).

In light of the aforementioned findings, the following hypotheses are proposed:

- H1. Trust positively impacts on purchase intention in the context of Instagram Commerce.

H2. Trust positively impacts on attitudes toward Instagram Commerce.

2.4.2 *The impact of attitude.* MacKenzie and Lutz (1989, p. 49) indicated that attitude toward advertising can be defined as “a learned predisposition to respond in a consistently favorable or unfavorable manner toward advertising in general.” According to classical customer behavior theory, a person’s behavioral intention is mainly affected by attitude (Fishbein and Ajzen, 1975).

In the context of s-commerce, customer loyalty has a positive impact on attitude toward s-commerce platforms, resulting in an improved intention to continue purchasing from such platforms in the future. Attitude toward an s-commerce site has also been found to have a significant effect on behavioral intention (Martínez-López *et al.*, 2020).

Attitude can also function as a predictor of behavior. For instance, if a Facebook user gives a “like” to a particular advertisement on the social media platform, there may be a much greater likelihood that they will go on to make a purchase because the “like” will redirect them to pages related to commercial activities on the site (Martínez-López *et al.*, 2020). Suraworachet *et al.* (2012) found that an individual’s attitude toward online purchasing on Facebook has a positive influence on their purchase intentions within the site. Additionally, Nedra *et al.* (2019) agreed that attitude toward the use of Instagram has a positive impact on the intention to use Instagram.

In light of the above, the following hypothesis is proposed:

H3. Attitude toward Instagram Commerce positively impacts on purchase intention on the platform.

2.4.3 *The impact of perceived ease of use.* Davis (1989) stated that perceived ease of use is the degree to which a user believes that using a given system will be effortless. Easy-to-use commercial websites are now made widely available on mobile devices and customers can readily understand the technology and use it frequently. As they do so, they will start to discover and learn additional ways to use the applications while overcoming any potential technological barriers to the products and services on sale.

According to Martínez-López *et al.* (2020), in the context of purchasing via s-commerce, perceived ease of use relies on an individual’s particular assessment of the effort likely involved in purchasing from s-commerce platforms by clicking on the purchase buttons, as such buttons on s-commerce sites are still relatively new.

In light of the aforementioned findings, the following research hypothesis is proposed:

H4. The perceived ease of use of Instagram Commerce positively impacts on purchase intention on the platform.

Perceived ease of use and perceived usefulness are strong predictors of the use of numerous technological advancements. In this regard, Hu *et al.* (1999) asserted that perceived usefulness is a stronger driver of new-technology acceptance than perceived ease of use. Davis (1989) reported that perceived usefulness is a key predictor of the intention to use innovative technology. Most studies dealing with small- and medium-sized enterprises seeking to build an s-commerce presence have corroborated the significant impact of perceived usefulness on purchase intention. This is consistent with the TAM (Davis, 1989). In addition, many authors have already demonstrated the importance of both perceived ease of use and perceived usefulness. Baker *et al.* (2019) posited that improved perceived ease of

use would positively impact perceived usefulness with regard to online shopping in a web-based e-commerce environment. Therefore, the following hypothesis is proposed:

H5. The perceived ease of use of Instagram Commerce positively impacts on the perceived usefulness of the platform.

2.4.4 The impact of perceived usefulness. [Nkoyi et al. \(2019\)](#) defined perceived usefulness as the degree to which an individual believes that using a particular system will improve their job performance – for example, that using a specific technology will facilitate their work. [Rauniar et al. \(2014\)](#) described perceived usefulness as the degree to which social media users believe that the social media platforms on which they interact help them achieve their goals.

Perceived usefulness positively influences intention to use e-commerce websites for shopping ([Sawitri and Giantari, 2020](#)). Recent studies have also shown that perceived usefulness positively impacts on intention to adopt s-commerce ([Abed, 2020](#)). Similarly, [Herzallah et al. \(2021\)](#) found that perceived usefulness has a significant influence on intention to use Instagram.

In light of the aforementioned findings, the following hypothesis is proposed:

H6. The perceived usefulness of Instagram Commerce positively impacts on purchase intention on the platform.

2.4.5 The impact of alternative evaluation. Alternative evaluation is one of the six stages in the consumer decision-making theory purchase decision-making process proposed by [Engel et al. \(1995\)](#). The model consists of six sequential phases that define how customers approach the consumption process to meet their expectations:

- (1) need recognition;
- (2) information search (both internally and externally);
- (3) prepurchase alternative evaluation;
- (4) purchase and consumption;
- (5) postpurchase evaluation; and
- (6) divestment

[Engel et al. \(1995\)](#) described prepurchase alternative evaluation as a four-stage process:

- (1) purpose of evaluative principles;
- (2) choice alternatives;
- (3) assessment of performance alternatives; and
- (4) application of the decision rule.

[Hettiarachchi et al. \(2018\)](#) found a significant and positive relationship between alternative evaluation and purchase intention. The fact that Instagram Commerce provides information on numerous brands leads users to use it as a tool for evaluating alternatives before making a purchase.

As a consequence of the above, the following hypothesis is proposed:

H7. Alternative evaluation positively impacts on purchase intention in Instagram Commerce.

2.4.6 The moderating role of gender. The scientific literature has examined the significant impact of gender, age and experience on the adoption of innovations (Chong, 2013).

First of all, previous research has analyzed the moderating effect of gender with regard to the acceptance of e-commerce and has identified behavioral variances in online purchasing between users according to their gender (Liébana-Cabanillas *et al.*, 2021). In general terms, men are more willing to use e-commerce than women and are more likely to adopt planned purchase behavior (e.g. purchasing computer hardware with software), whereas women are more inclined to purchase from a wider range of products and services and are also more likely to engage in impulse buying (e.g. for food, drinks and clothes) (Zhou *et al.*, 2007).

The moderating effect of gender with regard to e-commerce acceptance has been extensively investigated in previous studies (Liébana-Cabanillas *et al.*, 2018). However, when the perceived effort associated with understanding and learning how to use a new technology is low, both female and male customers present a greater intention to adopt and use that technology. Moreover, smartphones are accessible to both genders around the clock and both are able to buy products and services with one simple click (Curtis *et al.*, 2010).

Xie (2009) examined mobile commerce acceptance among Singaporean citizens and found that men, in general, perceived it more favorably than women. Chong (2013) also asserted that men are more likely to engage in mobile commerce activities compared with women. Jackson *et al.* (2001) examined gender variances with regard to internet usage and discovered that women used e-mail more frequently than men, while men used the internet to search for information more often than women.

In the case of s-commerce, as the technology becomes easier to adopt and use, we predict that it will see a significant boost in the number of female users, especially in the context of Instagram Commerce. Women are known to engage in shopping more often than men and they seek quick, effortless ways to source their desired products and services. In light of the aforementioned findings, the following hypotheses are proposed:

H8a. The impact of perceived ease of use on the perceived usefulness of Instagram Commerce is significantly higher among women than among men.

H8b. The impact of perceived ease of use on purchase intention in the context of Instagram Commerce is significantly higher among women than among men.

2.4.7 The moderating effect of age. Age also has a major impact on consumer behavior (Hubona and Kennick, 1996). Some researchers have identified a positive relationship between customer age and the probability of purchasing products online (Stafford *et al.*, 2004), whereas others have found a negative impact (Joines *et al.*, 2003) or no relationship at all (Dabholkar *et al.*, 2003). Some studies have sought to determine whether age can be considered a core variable in assessing customer attitude and behavior through the analysis of age-related consumer characteristics (Li *et al.*, 2008).

In the case of young consumers and new technology, a significant level of perceived ease of use along with fewer detected difficulties or barriers will lead them to use and consume technology more than adults, especially with regard to Instagram Commerce. The vast majority of its users are young, as they find the platform easy to use while discovering the multiple ways that Instagram offers to swiftly purchase products and services. The present study therefore proposes the following hypotheses:

H9a. The impact of the perceived ease of use of Instagram Commerce on its perceived usefulness is higher among younger users.

H9b. The impact of the perceived ease of use of Instagram Commerce on purchase intention on the platform is higher among younger users.

2.4.8 The impact of experience in using Instagram. Customers' positive past experiences of making purchases are a key influence on their future purchase behavior (Fishbein and Ajzen, 1975). According to O'cass and Fenech (2003), consumers with technological experience will sense negligible perceived risk when adopting new or different information systems, which improves their perceived usefulness and encourages continuance intention over time. Some authors (Hsu *et al.*, 2007) have detected that consumers with previous experiences in online purchasing are more likely to purchase products online based on expectations of further benefits and fewer problems related to the purchasing platform. Additionally, when users are in the early stages of using a new technology, they tend to focus more on the hedonic advantages and resource suitability of the innovation (i.e. user interface design and functionality). It has also been found that the relationship between usefulness and intention to visit a website is influenced by the moderating effect of customer experience of the internet (Liébana-Cabanillas *et al.*, 2018). Consequently, perceived usefulness is significantly greater among experienced users with regard to their intention to use pioneering technologies in the future (San José, 2007).

Regarding the moderating effect of experience, based on a review of the scientific literature, Liébana-Cabanillas *et al.* (2018) identified that it has been established that perceived ease of use is especially important for less experienced consumers to improve their future intention to use an innovation. Nevertheless, experienced consumers usually perform an additional in-depth assessment of the website. Thus, a lack of experience may cause users to focus more on the user interface than on the purpose of their visit to the website. In the case of Instagram Commerce, thanks to the variety of purchasing options it offers, users can choose from different shopping experiences. Hence, younger users are regarded as fast learners when it comes to using new technology, whereas adults are more likely to need help with learning to use innovations. In addition, active users spend between 1 and 10 h or more a day on Instagram. The typical Instagram user only browses the site for a few hours a week. However, this is on the increase, as the perceived ease of use and perceived usefulness of the platform are improving and users are becoming more familiar with the online purchasing of products and services on this network. Users presenting a low level of perceived ease of use of Instagram Commerce will usually ask others with more experience to help them learn how to use this technology. In light of the above, the following hypotheses are proposed:

H10a. The impact of perceived ease of use on the perceived usefulness of Instagram Commerce is significantly higher among experienced users of this platform.

H10b. The impact of perceived ease of use on purchase intention in the context of Instagram Commerce is higher among experienced users of this platform.

Based on the above discussion, Figure 1 shows the proposed research model.

3. Research methodology

3.1 Scale operationalization

To estimate the proposed model, we adopted the measurement scales from relevant previous studies, evaluated the constructs of interest and modified slightly the original items to adapt them to the present research context.

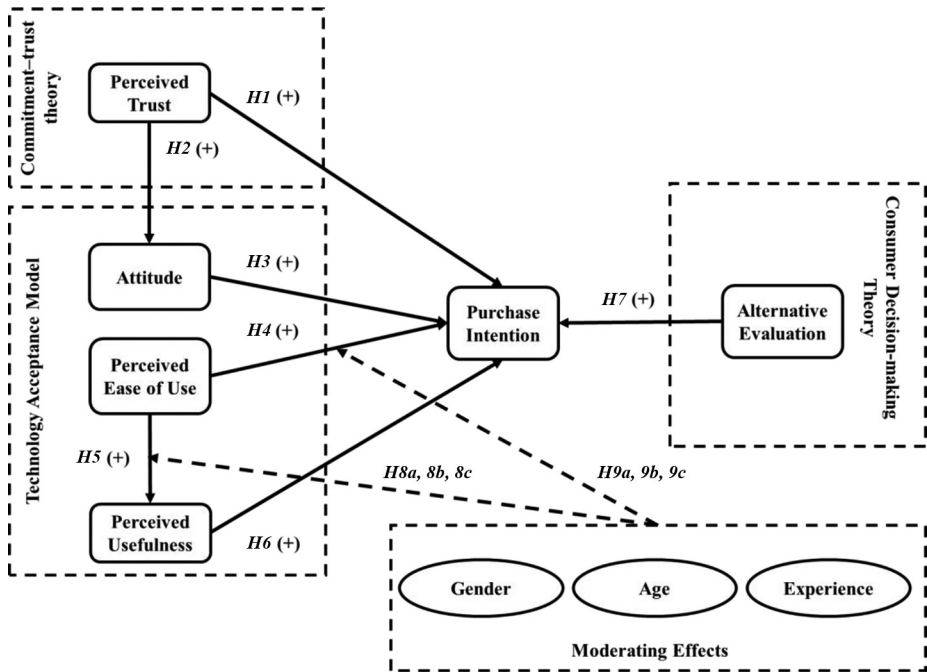


Figure 1.
Research model

The present research also captured values for the three moderating demographic variables of gender, age and experience. Gender was measured by respondents' selection of "male" or "female." Age was measured after collecting the data from all respondents and then dividing the sample by the mean (under 25 years for "young users" and 25 years or over for "adults"). Finally, experience in Instagram use was measured according to the average number of hours per day devoted to Instagram, as reported by respondents (classified into "between 1 and 5 h" and "6 h or more").

3.2 Data collection

The research is based on primary data, collected through a survey questionnaire using Google Forms. The process involves showing participants a video explaining the process of buying through Instagram sent as a link (<https://forms.gle/pudaqa4iY7t1PVtt7>) through Facebook, Instagram, WhatsApp and e-mail from December 2019 until February 2020. After viewing the video, participants completed the questionnaire.

This research followed three steps: a qualitative review of the scales by experts; a first validation of the scales for a sample of university graduates; and the implementation of a questionnaire. The final sample comprised 404 valid responses. The sociodemographic and economic characteristics of the individuals are shown in Table 1.

4. Results

The responses were analyzed using partial least squares structural equation modeling (PLS-SEM). This is a causal-predictive approach suitable for predicting statistical models whose structures are designed to provide causal explanations (Sarstedt et al., 2017). The PLS model

Table 1.
Demographic characteristics of the respondents

Variable	Cases (%)	Variable	Cases (%)
<i>Gender</i>		<i>Monthly income</i>	
Men	164 (40.6%)	Less than 1,100 euros	81 (20.0%)
Women	240 (59.4%)	1,100–1,800 euros	67 (16.6%)
<i>Age</i>		1,800–2,700 euros	31 (7.7%)
18–25	215 (53.2%)	Over 2,700 euros	30 (7.4%)
26–35	95 (23.5%)	No income	164 (40.6%)
36–45	38 (9.4%)	Don't know/no answer	31 (7.7%)
46–55	30 (7.4%)	<i>Active on social media platforms</i>	
56–60	18 (4.5%)	Facebook	350 (86.6%)
Over 60	8 (2%)	Instagram	344 (85.1%)
<i>Education level</i>		WhatsApp	304 (75.2%)
University	250 (61.9%)	YouTube	293 (72.5%)
Postgraduate	102 (25.2%)	Twitter	157 (38.9%)
High school	34 (8.4%)	<i>Time spent on Instagram (per day)</i>	
Elementary	18 (4.5%)	No more than 1 h a day	48 (11.9%)
<i>Employment status</i>		2–5 h a day	205 (50.7%)
Employee	115 (28.5%)	6–10 h a day	121 (30.0%)
Student	178 (44.1%)	More than 10 h a day	30 (7.4%)
Unemployed	65 (16.1%)		
Self-employed/ Businessman/women	35 (8.7%)		
Retired	11 (2.7%)		

is analyzed in two stages: first, by assessing the reliability and validity of the measurement model and second, by assessing the structural model (Anderson and Gerbing, 1988).

4.1 Reliability and validity analysis

Prior to testing whether the hypotheses were supported, the consistency and validity of the measurement tools and scales were checked. The study also examined specific variables for possible variations in the dimensions measured, such as discriminant and convergent validity. First, to assess the reliability of the scales, the Cronbach's alpha indicator was applied while analyzing composite reliability (CR). The minimum acceptable value proposed in the literature is 0.7 (Nunnally, 1994). The reliability of each item was examined by focusing on the relationships between the indicators and their respective variables. The threshold value proposed by the literature is 0.7 (Barclay *et al.*, 1995). Confirmatory factor analysis was also performed to measure the different analyses of convergent validity of the scales and the items that contributed the least to explaining the influence of the model were removed ($R^2 > 0.5$). Convergent validity was estimated by means of the factor loadings of the indicators. The coefficients were significantly different from zero and the loadings among the latent and observed variables were large in all cases ($\beta > 0.7$). Table 2 shows that all of the proposed loadings were significant. Second, average variance extracted (AVE) was used to estimate convergent validity. The AVE revealed the variance that factors gain from their indicators in relation to the amount of variance explained by measurement error. The minimum value suggested in the literature is 0.5 (Fornell and Larcker, 1981). In the present case, the parameters recommended by the literature were also met as the CR value for each factor and the values from the AVE exceeded the reference threshold values of 0.7 and 0.5, respectively.

	Loadings
<i>Alternative evaluation (AE)</i> . Adapted from Hettiarachchi et al. (2018) → $\alpha = 0.964$, CR = 0.962, AVE = 0.867	
I check related IC about alternatives before purchasing	0.949
I consider related IC when evaluating the alternatives	0.957
IC enables me to evaluate the alternatives in mind	0.956
I don't stop evaluating alternatives without checking Instagram Commerce	0.933
<i>Attitude (ATT)</i> . Adapted from Cho and Son (2019) → $\alpha = 0.981$, CR = 0.981, AVE = 0.894	
Entertaining	0.948
Enjoyable	0.957
Interesting	0.959
Fun	0.960
Exciting	0.962
Appealing	0.944
<i>Purchase intention (PI)</i> . Adapted from Cho and Son (2019) → $\alpha = 0.969$, CR = 0.969, AVE = 0.864	
I intend to buy products/services through Instagram	0.906
I'd be willing to buy products/services through Instagram	0.958
I'd be willing to recommend buying products/services through Instagram to my friends	0.966
I would visit Instagram to buy products/services again	0.958
In the future, I would be very likely to shop via Instagram	0.931
<i>Perceived Ease of Use (PEOU)</i> . Adapted from Athapaththu and Kulathunga (2018) → $\alpha = 0.970$, CR = 0.970, AVE = 0.867	
Instagram is easy to use	0.921
It is easy to become skillful at using IC	0.946
It is easy to learn to use IC	0.961
It is easy to interact with IC	0.953
IC is clear and easy to understand	0.945
<i>Perceived usefulness (PU)</i> . Adapted from Athapaththu and Kulathunga (2018) → $\alpha = 0.972$, CR = 0.972, AVE = 0.874	
IC is useful to buy the products and services on sale	0.936
IC makes it easier to search for and purchase products	0.953
IC improves my performance in evaluating products	0.961
IC allows me to discover new products and get shopping ideas quickly	0.945
Instagram Commerce increases my productivity in discovering products and getting shopping ideas	0.946
<i>Trust (TRUST)</i> . Adapted from Athapaththu and Kulathunga (2018) → $\alpha = 0.968$, CR = 0.966, AVE = 0.811	
I think IC usually fulfills the commitments it makes	0.930
IC does not make false statements	0.893
I think IC has adequate experience in the marketing of the products and services that it offers	0.906
Most of what IC says about its products or services is true.	0.918
I think the information offered by IC is truthful and honest	0.919
IC wants to be known for keeping its promises	0.915
IC keeps its promises and fulfills its commitments	0.927

Table 2.
Scale refinement

Note: Instagram Commerce = IC

Third, the present study measured discernment validity for the different dimensions associated with each variable, using PLS software. Three methods were applied:

- (1) a cross-loading analysis to test whether the average variance shared between a scale and its measurements was higher than the variance shared with other measurements in the model ([Barclay et al., 1995](#));

- (2) the Fornell–Larcker criterion to examine whether the correlations between the various dimensions had lower values than the value of the square root of the AVE (Fornell and Larcker, 1981); and
- (3) the Heterotrait–Monotrait (HTMT) ratio analysis to measure whether the relationships between pairs of concepts yielded a value lower than 0.9 (Henseler *et al.*, 2014).

The results (Table 3) show an appropriate amount of discriminant validity throughout the research model.

The significance of the relationships between the hypotheses and their analytical performance was calculated through the assessment of the structural model. All the hypotheses were supported except for *H1* and *H4*, as shown in Table 4. A bootstrapping procedure (Hair *et al.*, 2016) based on 5,000 subsamples was used to evaluate the relevance of the path coefficients.

4.2 Estimation and evaluation of the structural model

H1 proposed a relationship between trust and purchase intention. The findings from the present study support this relationship ($\beta = 0.079, p < 0.10$) and the obtained values are in line with recent research. The relationship between trust and attitude was tested under *H2*. In this case, the results provide adequate support for the existence of such a relationship

	AE	ATT	PEOU	TR	PU	PI
<i>AE</i>	0.931	0.821	0.849	0.832	0.893	0.839
<i>ATT</i>	0.822	0.946	0.797	0.792	0.848	0.878
<i>PEOU</i>	0.849	0.797	0.931	0.783	0.923	0.730
<i>TR</i>	0.832	0.792	0.783	0.900	0.844	0.777
<i>PU</i>	0.893	0.848	0.923	0.844	0.935	0.817
<i>PI</i>	0.839	0.878	0.730	0.777	0.817	0.930

Notes: Fornell–Larcker criterion (below the main diagonal) and Heterotrait–Monotrait Ratio (HTMT) (above the main diagonal). Main diagonal: in italics, square root of the AVE. AE = alternative evaluation, ATT = attitude, PEOU= perceived ease of use, TR = trust, PU = perceived usefulness, PI = purchase intention

Table 3. Discriminant validity

Hypotheses	Relationships	Paths	f^2	R^2	Q^2	Supported
<i>H1</i>	TR → PI	0.079*	0.004			Yes
<i>H2</i>	TR → ATT	0.772***	1.685			Yes
<i>H3</i>	ATT → PI	0.547***	0.467			Yes
<i>H4</i>	PEOU → PI	-0.198***	0.064			No
<i>H5</i>	PEOU → PU	0.897***	5.769			Yes
<i>H6</i>	PU → PI	0.176**	0.023			Yes
<i>H7</i>	AE → PI	0.321***	0.134			Yes
	ATT			0.596	0.540	
	PU			0.804	0.719	
	PI			0.787	0.696	

Notes: *** $p \leq 0.001$; ** $p \leq 0.05$; * $p \leq 0.10$; n.s. = not significant

Table 4. Evaluation of the structural model

($\beta = 0.772, p < 0.001$), which is also in consonance with recent research. With regard to the relationship between attitude and purchase intention ($H3$), the results from this study strongly support the existence of such a relationship ($\beta = 0.547, p < 0.001$), as already suggested by the literature. Turning to the relationship between perceived ease of use and purchase intention ($H4$), despite obtaining empirical support ($\beta = -0.198, p < 0.001$), the proposed relationship presented in the opposite direction to that which we expected. Hence, $H4$ did not receive support. However, other studies, such as [Kasilingam \(2020\)](#) and [Yang et al. \(2020\)](#), found a negative relationship between the two variables. In an online context, this may perhaps be explained by the lack of motivation the user associates with making a purchase on the social network. If the user believes that the purchase system in question is extremely easy to use and that they can readily use it anytime, anywhere – as in the present case – they may experience less incentive to familiarize themselves with the system straight away. Hence, they may be inclined to defer the process, even to the extent that they ultimately never complete the purchase. In other words, the ability to perform certain tasks does not necessarily lead to actual performance or intention to perform them. Meanwhile, a relationship between ease of use and usefulness was proposed under $H5$. The results strongly support this hypothesis ($\beta = 0.897, p < 0.001$), as has already been suggested in the literature. Regarding the relationship between usefulness and purchase intention ($H6$), the results also support the existence of this relationship ($\beta = 0.176, p < 0.05$), validating other recent studies. Finally, the relationship between alternative evaluation and purchase intention proposed under $H7$ was tested and the results also mirror those of recent studies, thereby supporting this hypothesis ($\beta = 0.321, p < 0.001$).

[Hair et al. \(2014\)](#) and [Henseler et al. \(2016\)](#) established overall goodness-of-fit as a basis for the evaluation of structural models; hence, this procedure was applied in the present study. Procedures from [Stone \(1974\)](#) and [Geisser \(1975\)](#) were also implemented to measure R^2 and Q^2 along with effect size (f^2) and the standardized root mean square residual (SRMR) coefficients, with R^2 achieving a value of 0.596 with regard to the variables under study (see [Table 4](#)). [Falk and Miller \(1992\)](#) suggested a minimum threshold value of 0.1 for R^2 .

[Chin \(1998\)](#) classified f^2 values of between 0.02 and 0.15, 0.15 and 0.35 and 0.35 or higher, indicating that an exogenous latent variable has a substantial, moderate or weak influence, respectively. This coefficient measures whether an independent latent variable has a significant influence on a dependent latent variable. In the present study, f^2 yields a value of 0.004–5.769. Furthermore, the relationship between the variables has a significant effect and the lowest value found in this study with regard to f^2 pertained to the relationship between trust and purchase intention.

In addition, the blindfolding techniques developed by [Stone \(1974\)](#) and [Geisser \(1975\)](#) were applied to obtain the value for the predictive relevance test (Q^2). This coefficient indicates the analytical performance of the dependent and endogenous variables. All the indicators in the present research yielded values above 0.5. In this sense, the analytical significance of our structural model improves as Q^2 rises.

Furthermore, as mentioned above, the present research also measured the value of the SRMR coefficient ([Henseler et al., 2015](#)). SRMR is the difference between the observed or practical correlation and the predicted correlation, which serves as a measure of model fit. Typically, a value below 0.08 is considered acceptable and the present model presented precisely this value.

4.3 The moderating effect of gender, age and experience in the use of social media

To analyze the moderating effect of the proposed variables, first, the measurement invariance of composite models procedure ([Henseler et al., 2016](#)) was applied. This

determines “whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute” (Henseler *et al.*, 2015). It is a three-step procedure to assess the invariance of measures: configural invariance, compositional invariance and equality of composite mean values and variances. Configural invariance is a prerequisite for compositional invariance, which is a prerequisite for a meaningful assessment of the composite mean.

According to Henseler *et al.* (2016), if configural (step 1) and compositional (step 2) invariance are established, this indicates partial measurement invariance. Otherwise, measurement invariance cannot be established. In the present case, partial invariance was confirmed because steps 1 and 2 were in line with the thresholds established in the literature, while step 3 did not produce optimal values for all of the variables. However, in practical applications, full measurement invariance is often not fulfilled.

Once measurement invariance had been verified, the structural model was estimated using the PLS multigroup analysis method (Henseler *et al.*, 2009). The main purpose of this analysis is to test whether the path coefficients differ significantly between the two groups. Table 5 shows the results of the test of differences between groups for the proposed hypotheses.

According to the results of the multigroup analysis, we observed differences in five of the six proposed relationships (*H8a*, *H9a*, *H9b*, *H10a* and *H10b*). With regard to gender, only the hypothesis proposing a positive relationship between perceived ease of use (PEOU) → perceived usefulness (PU) (*H8a*) obtained empirical support. Specifically, women present a higher loading than men in this relationship ($\beta_{\text{WOMEN}} = 0.925$; $\beta_{\text{MEN}} = 0.855$). This suggests that women (vs men) prefer Instagram Commerce apps that are simpler to use, which enhances their use intention. Yapp *et al.* (2018) found that as the amount of time, money and effort that women invest in new technology increases, the more familiar they become with the innovation; and the perceived level of effort required to learn how to use the technology decreases, even if the women in question are innovative. Our results corroborate this finding. They also suggest that women attach more importance than men to the Instagram application’s ease of use, which ultimately improves their intention to use this social network to make purchases.

Second, the two hypotheses relating to the moderating effect of age found empirical support. The first one proposed a positive relationship between PEOU → PU (*H9a* and *H9b*) and this was much higher among younger users than adults ($\beta_{\text{YOUNG}} = 0.922$; $\beta_{\text{ADULT}} = 0.851$). The second hypothesis proposed a positive relationship between PEOU → PI (*H10a* and *H10b*) and this was negative in both cases, albeit more negative in the case of younger users ($\beta_{\text{YOUNG}} = -0.343$; $\beta_{\text{ADULT}} = -0.074$). These results suggest that users in both age ranges do not

Gender	Men			Women			Differences	
	Path	SD	P-value	Path	SD	P-value	Difference	P-value
<i>H8a: PEOU → PU</i>	0.855	0.028	0.000	0.925	0.012	0.000	-0.07	0.018
<i>H8b: PEOU → PI</i>	-0.200	0.099	0.043	-0.216	0.08	0.007	0.016	0.899
Age	Young			Adults			Differences	
	Path	SD	P-value	Path	SD	P-value	Difference	P-value
<i>H9a: PEOU → PU</i>	0.922	0.014	0.000	0.851	0.027	0.000	0.071	0.024
<i>H9b: PEOU → PI</i>	-0.343	0.072	0.000	-0.074	0.085	0.388	-0.269	0.011
Experience in social media	1h-5h			≥6h			Differences	
	Path	SD	P-value	Path	SD	P-value	Difference	P-value
<i>H10a: PEOU → PU</i>	0.879	0.02	0.000	0.931	0.017	0.000	-0.052	0.046
<i>H10b: PEOU → PI</i>	-0.258	0.074	0.001	-0.026	0.115	0.821	-0.232	0.074

Table 5. Multigroup analysis of gender, age and experience

consider this purchasing channel to be difficult to manage – even presenting an opposite effect to that identified in the previous literature, which found a positive relationship. There seems to be a general agreement in society today that older people are not convinced of the benefits of modern technology and that they are resistant to change and unwilling to adopt new approaches. The adoption of a new technology involves acquiring new knowledge and is consequently affected by the degree of flexibility of a person's cognitive capacity. In a recent study (Hauk *et al.*, 2018), age was negatively related to perceived ease of use. Other studies (Chong, 2013) found a negative correlation between age and technology acceptance.

Finally, regarding the individual's experience in the use of Instagram, both hypotheses received empirical support as significant differences were found between the two groups. In the case of the first of the proposed relationships (a positive relationship between PEOU \rightarrow PU), users who spent more time on this platform showed a higher use intention, based on the greater perceived ease of use, thanks to the experience effect, compared with those who devoted fewer hours to it ($\beta_{1-5h} = 0.879$; $\beta_{\geq 6h} = 0.931$). The proposed relationship between PEOU \rightarrow PI also presented a negative relationship between both variables ($\beta_{1-5h} = -0.258$; $\beta_{\geq 6h} = -0.026$). This result suggests that ease of use is not a determinant variable in use intention and that it has a negative influence regardless of the individual's experience in the use of the platform. The impact of critical incidents on perceived ease of use is greater among less experienced users of Instagram Commerce, compared with more experienced users. According to Lin (2011), the frequency of critical incidents that users experience negatively has a direct and negative effect on perceived ease of use of an e-learning service in both groups.

5. Conclusions and practical findings

Numerous authors concern that Instagram Commerce is the principal sales network of the future (Assadam, 2020). Against this backdrop, the present study makes a number of contributions to s-commerce and to the literature dealing with Instagram Commerce. First, the results enable us to better understand the role of purchase intention in the success of s-commerce platforms. It is the first study to propose and empirically examine a model based on variables of s-commerce derived from three theories: the TAM, CTT and consumer decision-making theory. As such, the study contributes to expanding the scientific knowledge-base and the literature relating to consumer behavior on this new s-commerce platform.

Second, this study found that attitude, perceived usefulness, trust and alternative evaluation significantly affected purchase intention toward Instagram Commerce. However, it found no relationship between perceived ease of use and purchase intention. The latter finding may be explained by the lack of motivation that Instagram Commerce's ease of use may generate among some users. That is, the very fact that users can so easily make purchases at their convenience on this platform may lead them to defer the purchasing process and ultimately, fail to instigate it altogether.

The results also highlighted the impact of perceived ease of use on perceived usefulness—that is, the greater the perceived ease of use of Instagram Commerce, the greater its perceived usefulness and consequently, the stronger the use intention toward this platform.

Third, this study showed the moderating role of gender, age and experience on the aforementioned relationships. With regard to the moderating effect of gender, the results show that women present a higher loading than men in the relationship between perceived ease of use and perceived usefulness. Women also prefer easier-to-use Instagram Commerce apps, which enhance their use intention. The results suggest that women attach more importance than men to the ease of use of the Instagram application, which ultimately improves their intention to use this social network to make purchases.

Fourth, the results show that the influence of ease of use on usefulness was much higher among younger users than adults; however, the relationship between ease of use and purchase intention was negative in both groups, albeit more negative in the case of younger users. Behaviors and intentions in relation to new technology differ between individuals who approach a given innovation for the first time as adults and those who were born when the technology was already well established, meaning that younger people do not find it such a struggle to use some of the latest technologies. However, as adults grow more familiar with the innovations, they use them more often and with increased proficiency for personal or professional reasons.

Finally, this study also contributes to the literature by identifying the moderating effect of experience in the use of Instagram Commerce on the impact of ease of use on usefulness and the impact of perceived ease of use on purchase intention. The results show that those users who spent more time connected to the platform presented a stronger use intention than those who connected less often, based on the effect of experience, which improves perceived ease of use. When users perceive Instagram as easy to use, they are more likely to spend longer periods of time on it and purchase from Instagram Commerce. In turn, consumers that perceive Instagram Commerce as effortless to use are more likely to spend longer sessions logged onto their profiles and purchase products and services from the platform. The proposed relationship between perceived ease of use and purchase intention also presented a negative relationship in both groups, while the impact of negatively experienced critical incidents on perceived ease of use was greater among consumers who were less familiar with the use of Instagram Commerce.

6. Managerial implications

The present study holds a number of significant implications for professionals in this particular field of knowledge. First of all, this research contributes to helping firms to develop and manage Instagram Commerce as an s-commerce platform. The results show that Instagram Commerce is one of the s-commerce platforms that help companies to improve sales and create a positive image. Second, managers in the s-commerce field (and especially Instagram Commerce) can improve purchase intention by building favorable consumer attitudes. In this sense, sales can also be driven by keeping product and service information up-to-date, creating colorful, creative designs for websites to attract consumers and uploading high-quality stories and posts for products and services. Third, the ease of use of Instagram Commerce enables merchants to sell effortlessly while offering several purchasing methods and providing regularly updated product information. Digital marketing managers can also create greater transparency on the s-commerce platform by providing more extensive permissions for firms to customize their profiles, interact with the content and access valuable information, such as sales numbers. Professionals in the field can also further customize the s-commerce experience on the basis of personal characteristics, such as age, gender, profession and nationality, among others. Furthermore, companies could do well to enhance the usability of their social commerce platforms by making the entire process much easier to use, particularly on mobile devices. However, despite the enormous boom in the business use of technology, trust continues to drive the bridge that consumers cross to the secure side of online shopping. Transparency in social commerce could create the consumer trust on the platform and it looks more relevant in the context of developing countries where people are considered to be more sensitive and influenced by stories of fraud and lack of credibility and so constructing trust in such societies is very hard and takes a long time. Besides, the changing regulatory framework such as the general data protection regulation and its replication in many countries is changing the business landscape and the same should be reflected in the managerial implications of this article such that how companies should ensure the protection of the

consumer sensitive data to build and retail the consumer trust on the platform. Also, how recent developments in the field of wearable could transform the social commerce field. Finally, the government can provide security protection for mobile-commerce transactions by providing a certification authority (to verify buyer and seller identities, evaluate security measures, assess transactions and deliver digital certificates to those who meet the established security criteria). Therefore, the government can build and enforce a legal and judicial environment that provides minimum standards and obligations for transparency, fairness and timeliness.

7. Limitations and avenues for future research

The present study has certain limitations that may constitute potential avenues for future research. First, the sample comprises exclusively Palestinian users, when this particular country presents a relatively low penetration of the mainstream social networks – specifically, Instagram – because of its culture and socioeconomic barriers. Future studies could analyze different countries to examine the degree to which the proposed theoretical model could be generalized. Second, as the survey involved only participants aged 18 years or older, future research could approach different groups of participants – for instance, platform users under 18 years of age. Future studies could also seek to develop a more comprehensive model by including additional variables (Casaló *et al.*, 2017). With regard to the data-collection process, a longitudinal method could enable the strength of the relationships and the evolution of these or other moderating variables to be tested over time (especially income, employment status and educational level). Additionally, research involving a larger number of countries would enable different consumer attitudes toward Instagram Commerce to be compared according to nationality. On the other hand, the invariance could not be established for the pooled data and therefore the results should be taken with caution. Finally, neuromarketing methodologies (such as functional magnetic resonance imaging, eye tracking or electroencephalogram) could be applied to s-commerce and Instagram Commerce to measure users' visual attention, brain reactions or recall on s-commerce platforms in different sectors, such as fashion, technology, food and education.

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