From Consumer's Attitude towards Online Purchase Decision: Influence of Friends and Reference Groups

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ABSTRACT

The rapid advancement of e-commerce has piqued researchers' interest in identifying the determining factors of online purchase decisions. They have found abundant information about the influence of consumer attitudes but still have divergent results, indicating a gap in studies with mediating variables. The study aims to examine the mediating effect of the opinions of friends and reference groups on the relationships between consumer attitudes and online purchase decisions. The study surveyed 654 respondents and analyzed the data using partial least squares structural equations (PLS-SEM). The results show that consumers' attitudes significantly positively influence their online purchase decisions, which are mediated by the opinions of friends and influence groups. The opinions or recommendations of friends or other reference groups with similar purchasing experiences influence consumers. The research establishes a connection between constructs that influence online purchase decisions, with the main theoretical contribution being the analysis of the effect of friends' opinions and reference groups on generating a better consumer predisposition to make decisions in the virtual environment. The empirical contribution offers information that marketing managers should consider based on the results achieved, proposing strategies focused on reference groups that facilitate consumer decision-making.

Keywords: Consumer attitude, Online purchase decision, Influence of friends, Influence of reference groups

INTRODUCTION

The development of technology has generated radical changes in consumers' habits and behaviors (Ijaz et al., 2016). The global population's experiences during the pandemic, which brought the world to a standstill, have accelerated the advancement of electronic commerce (Sajid et al., 2022). This situation forced emerging countries, which had been slowly integrating digital tools, to accelerate the process and incorporate them into commercial activities. These strategies are essential today to meet the needs and demands of modern customers.

The studies carried out on the purchase decision have now turned to the digital environment, involving new generations, such as boomers, millennials, and centennials, who use social networks, applications, and online channels to make purchases (Rojas et al., 2020; Zirena-Bejarano et al., 2023). This context is of significant interest to companies because it currently represents the segment driving the market (Melović et al., 2021; Nurcahyono & Hanifah, 2023). During this transition, consumers search for internal information, which they may retain from positive or negative cognitive experiences related to a product or service, to inform their purchase decisions. Individuals seek external information when this information is insufficient (Schiffman & Kanuk, 2014). Gobinath and Gupta (2016) explain that individual reviews become consumers' information sources, impacting their decision-making process. Moreover, clients can quickly obtain vast information from the web, leading them to quickly compare prices, characteristics, and other people's experiences (Nurcahyono & Hanifah, 2023).

Among the purchase decision process determinants is the consumer's attitude, which identifies the value judgment the individual makes in a given situation, affecting their behavior (Fishbein, 1963) and identifying its affective, cognitive, and behavioral components (Maloney et al., 1975). The affective component generates a feeling that can be positive or negative; in the cognitive component, the consumer recognizes the need to acquire knowledge about the stimulus received, and so does the learning process. Finally, in the behavioral component, the consumer initiates and acts as the stimulus based on acquired knowledge (Abarna et al., 2023; Daems et al., 2019; Kowalczyk & Mitchell, 2022).

In analyzing the digital context, the previous review has generated changes in consumer behavior, especially in younger generations more predisposed to electronic commerce (Rojas et al., 2020). However, older generations fear the different risks generated by online operations (Nicolaou, 2023), and therefore, they prefer to buy in physical stores (Makhitha & Ngobeni, 2021). However, some studies have revealed a negative or non-significant effect of consumer attitude on purchasing decisions (Yin et al., 2020). Given this, we propose incorporating the influence of friends and reference groups into the study. According to social identity theories, an individual's transmission

of information influences their peers, and the intensity or intensity of arguments determines the generation of favorable or unfavorable reactions (Wood, 2000). In addition, the concept of social value identifies individuals' concern for the impression they make on peer groups (Biswas & Roy, 2015).

On the other hand, Ding et al. (2020) argue that reference groups are an essential factor in the purchase decision in digital communities. Han and Kim (2018) assert that friends play a crucial role in people's lives, serving as a vital source of information that facilitates viable purchasing decisions. To our knowledge, there is no evidence of previous studies that analyzed such variables as mediators, creating a gap in the literature. In that sense, we believe that their recommendations strengthen individuals' preferences, particularly in younger generations, who are characterized by being more sociable, as stated by Dalziel & De Klerk (2020). Both constructs significantly influence customers' behavior during online decision-making (Al-Swidi et al., 2014). On the other hand, Hoonsopon and Puriwat (2016) argue that reference groups have a diverse impact on purchase intention under different drivers. This information generates interest in further research on the effect of these constructs on the purchase decision in digital environments, given that commercial activity is focusing on this context.

The current research's stated objectives highlight its significance. First, it aims to analyze the effect of consumer attitude on the online purchase decision. Second, it aims to determine the mediating role of friends in the relationship between consumer attitude and the purchase decision. Third, it aims to determine the mediating role of reference groups in the relationship between consumer attitude and online purchase decisions, answering whether this effect is consistent in online purchase transactions. The main contribution to the literature is the study of the theory linking consumer attitude to online purchase decisions, filling the gap in studies that address the effect of consumer attitude on purchase decisions in the digital medium in developing countries, as well as deepening the study for a better understanding of the influence of friends and reference groups on the online purchase decision.

The work is divided into five sections. The first section introduces the work, the second section develops the theoretical framework and hypothesis approach, and the third section proposes the research methodology. Then, the discussion of results and conclusions includes the theoretical and empirical implications, limitations, and future lines of research.

THEORETICAL BACKGROUND
Online Purchase Decision

The evolution of electronic commerce has led to the development of the purchasing decision process in digital environments, where customers can select between two or

more available alternatives (Schiffman & Kanuk, 2014). This process recognizes two currents, according to the theory. This process recognizes two currents, according to the theory. Al-Abdallah et al. (2021) base the first process on rational decision-making, which involves identifying the problem or lack and evaluating alternatives before making a final decision. The other current study explores decision-making, proven through consumer behavior analysis, including purchasing attitudes (Dortyol et al., 2018; Li, 2014).

In this context, the decisions made by individuals in the virtual environment require information on characteristics, prices, quality, and forms of payment, among others, that enable them to make the final decision more easily (Dewi et al., 2020; Karimi et al., 2018). Social networks, web pages, applications, and other technological tools quickly provide this information (Huang & Benyoucef, 2017; Patro, 2023). Specifically, the quality, trust, and credibility of information found and shared on the web influence purchasing decisions (Bai et al., 2019). Moreover, younger generations value convenience in time and space to obtain references for products that facilitate the evaluation stage (Ruiz Mafé & Sanz Blas, 2006; Zirena-Bejarano et al., 2022).

Attitude

According to consumer behavior, attitude is considered a determinant, defined as the individual's evaluation in response to a stimulus (Ajzen & Fishbein, 1977). This evaluation can be positive or negative (Amaro & Duarte, 2015). Attitude refers to preferences, viewpoints, and feelings toward a particular product (Kotler & Amstrong, 2013; Ni & Ueichi, 2024). Additionally, Wu and Tsai (2017) suggested attitudes, according to the ABC model, have three fundamental components: affect, which refers to how the consumer feels about a product; behavior, which reflects the individual's intentions to act towards the object; and cognition, which represents the beliefs the customer holds about the product. These components can be summarized as the knowing, feeling, and acting of the client over the product (Khalil et al., 2020)

Many studies have examined attitudes as a component of the theory of planned behavior (TPB), which asserts that personal attitudes, social norms, and a sense of control condition an individual's behavior (Ajzen, 1991; Zirena-Bejarano & Chávez Zirena, 2023). However, some authors suggest that it is very complex to explain the relationship between attitude and consumer behavior (Wu et al., 2018) because it leaves out the affective and behavioral aspects (Chou et al., 2020; Raab et al., 2018). We should also consider an individual's attitude toward online marketing based on the risks they must assume when entering e-commerce (Makhitha & Ngobeni, 2021; Zirena-Bejarano et al., 2023). Therefore, we propose conducting further research to address this cognitive gap based on the following hypothesis:

H1: The consumer's attitude positively and significantly affects the online purchase decision.

Friends

Humans are social entities that need to communicate and share experiences. They also observe and imitate others' behavior to fulfill their desire for acceptance (Hammerl et al., 2016), which engages them in social influence (Salazar et al., 2013). This influence reaches virtual media, where recommendations have become essential for consumers to evaluate in the decision process (Kietzmann et al., 2011). Today's consumers, especially the younger generations, spend significant time searching for information on the web. On social networks, they share information with friends, co-workers, or study colleagues, indicating the importance they place on their opinions (Marino & Lo Presti, 2019; Pacheco et al., 2017). Studies have demonstrated that friends' opinions make the recommendations more credible than information transmitted by the company (Errmann et al., 2019; Willemsen et al., 2012). Furthermore, the opinions of other significant individuals can also influence purchase decisions, such that consumers may decide not to purchase a product due to fear of disapproval from friends (Thompson et al., 2017). On the other hand, Fei et al. (2020) maintain that the influence of friends and family can have a divergent effect on consumers' purchase decisions. Based on these arguments, the following hypothesis is proposed.

**H2:** Friends mediate the relationship between consumer attitude and online purchase decisions.

Groups of reference

Marketing specialists must consider decision-making as a fundamental aspect when designing strategies for the company. To achieve this, they must define reference groups, individuals who act according to established norms (Ding et al., 2020). Furthermore, Ding et al. (2020) conceptualize this as a process where individuals relate to groups by sharing interests and group values, leading consumers to purchase products they believe align with their reference group's values. Similarly, identifying with a reference group necessitates adopting a specific attitude and posture that acknowledges the group's affiliation, interests, values, and feelings (Abreu, 2019). Studies have also shown that reference groups influence individual purchasing behavior (Dalziel & De Klerk, 2020; Delgado, 2006) consumers consider groups with high credibility and experience as a source of influence (Childers & Rao, 1992; Ding et al., 2020). In this same context, Hammerl et al. (2016) argue that consumers must maintain consistent relationships by

changing their beliefs about a product or brand according to the group's opinion. With these arguments, we propose the following hypothesis.

H3 Reference groups mediate the relationship between consumer attitude and online purchase decisions.

Figure 1 *Theoretical Model*
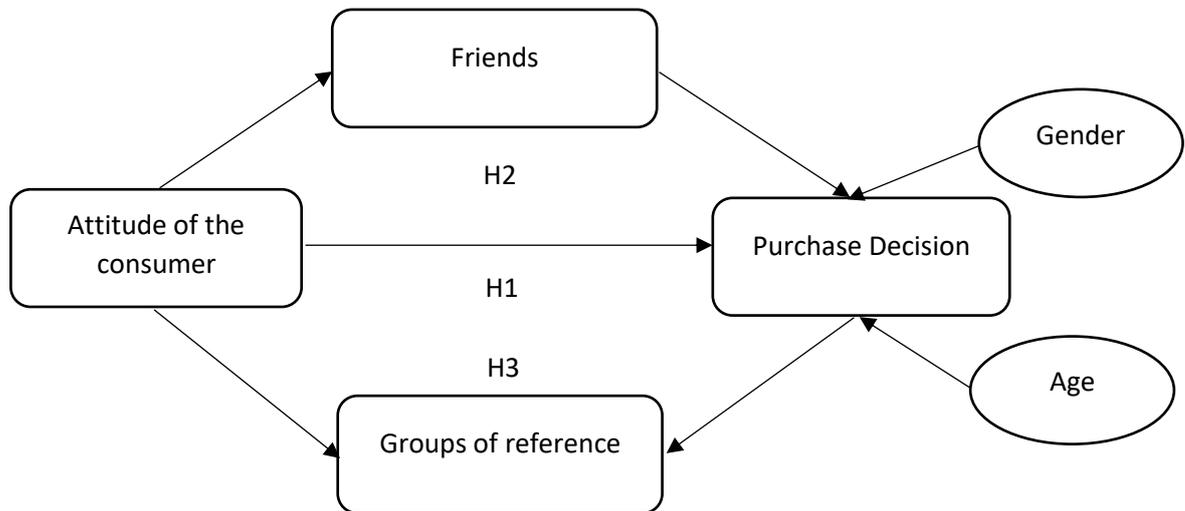
Source: self-made

RESEARCH METHODOLOGY

Population and Sample

We selected a sample of 654 respondents using the probabilistic sampling technique of simple random sampling, asking people who typically make purchases on digital platforms to complete the questionnaire. We applied and sent a 36-item Likert-type questionnaire through Google Forms. We collected the information after conducting a pilot study with 20 respondents and analyzing the results for reliability. After verifying the instrument's relevance, we conducted fieldwork and collected 720 responses, closely reviewing 654 of them as valid. This number exceeded the required sample size when calculated for an infinite population.

Measures

We measured the constructs analyzed using scales validated in previous studies. We reviewed several scales on the proposed variables and adapted them to a seven-point Likert-type scale, where one represents disagreement and seven represents agreement.

Consumer attitude: Defined as a set of beliefs, knowledge, experiences, and emotions that reflect an individual's favorable or unfavorable evaluation of a stimulus that can be

a product, idea, or event (Sarabia-Andreu & Sarabia-Sánchez, 2018). This construct was measured using a 10-item scale adapted from (Brand et al., 2020).

Purchase decision: Identified as recognizing the need, recognizing the problem, searching for information, evaluating alternatives, and making the final decision embodied in the final purchase (Prasad et al., 2019). Based on the theory of Kotler and Amstrong (2013), Sarabia-Andreu and Sarabia-Sánchez (2018) identified influencing factors such as social, personal, psychological, and cultural. The scale was adapted from the research conducted by Rojas et al. (2020) and consisted of 18 questions.

Friends: The consumer socialization process leads to friends' opinions influencing the purchase decision. This variable has been measured from four items of the questionnaire adapted from Al-Nahdi et al. (2015)

Groups of reference: The consumer socialization process leads to friends' opinions, influencing the purchase decision. We also measured the variable using four items adapted from Al-Nahdi et al. (2015).

Control Variables:
The control variables considered were age and gender, with a sample of 44% men and 56% women.

Analysis Techniques
For this research, the modeling of structural equations with partial least squares was carried out using Smart PLS version 3.3.5 software that facilitates the study of constructs in the social sciences (Chin & Dibbern, 2010). The applied technique made it possible to evaluate the relationship between the consumer attitude construct and the online purchase decision construct in the initial model. Then, we incorporated the friend constructs and reference groups as mediating variables to measure the indirect effects on the dependent construct (Hair et al., 2019a). In the first stage, we design the measurement model by analyzing simultaneous equations in two stages and evaluating the factor loads of the items that form the proposed constructs. Here, we evaluate the reliability and validity of the construct indicators. The second stage evaluates the structural model by analyzing the relationships between the cause and effect variables (Hair et al., 2020). Finally, the bootstrapping procedure is carried out, creating subsamples with randomly extracted observations and processing the information to test the statistical significance of the model coefficients estimated in PLS-SEM (Hair et al., 2019a).

RESULTS AND ANALYSIS

Descriptive Results

We applied various statistical techniques in the analysis of the research data. In the first phase, a descriptive analysis was carried out with the mean, standard deviation, and correlations between the proposed constructs shown in Table 1; in the second phase, the measurement model was evaluated; and finally, the structural model.

Table 1 *Descriptive and correlation analysis of the variables.*

	Mean	SD	1	2	3	4
1. Consumer attitude	**4.316**	**1.246**	**1**			
2. Friends	**4.266**	**1.573**	**0.732****	**1**		
3. Reference Groups	4.454	1.632	0.680**	0.786**	1	
4. Online purchase decision	4.429	1.367	0.768**	0.716**	0.711**	1

** The correlation is significant at the $p < 0.01$ bilateral level.

Source: self-made

Evaluation of the Measurement Model

For the analysis of the measurement model, the reliability and validity of the proposed variables were evaluated, considering Cronbach's alpha as the first indicator with values higher than the proposed threshold of 0.70; concerning the composite reliability, there are also values higher than 0.70 as a level of acceptance (Chin & Dibbern, 2010). Regarding the convergent validity, the values are higher than 0.50, demonstrating that the indicators substantially explain the measurement variable (J. F. Hair et al., 2011). Concerning discriminant validity, the Fornell and Lacker criteria were used, reaching values shown in bold on the diagonal higher than the rest of the values in the column. Likewise, according to the literature, these data can be confirmed by applying the Hetero-trait-monotrait (HTMT) ratio, with results more remarkable than those that can be observed in the upper rows, proving that the proposed constructs have discriminant validity (Henseler et al., 2015). Table 2 displays these data.

Table 2 *Analysis of the Constructs' Reliability, Convergent, and Discriminant Validity*

	Internal consistency		Conver-validity	Discriminant validity			
	Cronbach's Alpha	Composite Reliability		Fornell and Larcker and HTMT			
			AVE	1	2	3	4
1. Consumer attitude	0.893	0.913	0,519	**0.720**	0.798	0.745	0.808
2.Friends	0.909	0.936	0.787	0.726	**0.887**	0.896	0.785
3.Reference Groups	0.938	0.956	0.844	0.692	0.828	**0.919**	0.769
4.Online purchase decision	0.959	0.963	0.593	0.753	0.734	0.730	**0.770**

Source: self-made

Table 3 displays the four variables' internal consistency and cross loads, with each indicator's external load exceeding its cross loads, as bolded. According to the literature, the values are below the limit value of 5 (Hair et al., 2019a), and none of the indicators reach critical levels of collinearity.

Table 3 *Discriminant Validity Analysis by Cross-Loading*

	Cross Loads			
	Consumer attitude	Influence of friends	Influence of reference groups	Online purchase decision
Consumer attitude				
1 Attitude	**0.787**	0.598	0.578	0.624
2 Attitude	**0.788**	0.558	0.532	0.615
3 Attitude	**0.787**	0.604	0.588	0.620
4 Attitude	**0.512**	0.362	0.299	0.376
5 Attitude	**0.589**	0.408	0.369	0.431
6 Attitude	**0.452**	0.327	0.309	0.375
7 Attitude	**0.788**	0.554	0.535	0.580
8 Attitude	**0.808**	0.597	0.569	0.585
9 Attitude	**0.778**	0.549	0.525	0.558
10 Attitude	**0.799**	0.571	0.562	0.573
Friends				
11 friends	0.633	**0.786**	0.671	0.644
12 friends	0.653	**0.776**	0.730	0.645
13 friends	0.666	**0.794**	0.751	0.648
14 friends	0.622	**0.804**	0.784	0.666
Reference groups				
15 GroupsRef	0.629	0.872	**0.891**	0.655
16 GroupsRef	0.648	0.754	**0.919**	0.679
17 GroupsRef	0.629	0.753	**0.939**	0.668

	Cross Loads			
	Consumer attitude	Influence of friends	Influence of reference groups	Online purchase decision
18 GroupsRef	0.638	0.760	**0.926**	0.681
Online Purchase Decision				
19 Decision	0.597	0.600	0.577	**0.716**
20 Decision	0.560	0.564	0.532	**0.728**
21 Decision	0.584	0.607	0.539	**0.715**
22 Decision	0.617	0.562	0.531	**0.754**
23 Decision	0.625	0.548	0.517	**0.759**
24 Decision	0.583	0.613	0.567	**0.751**
25 Decision	0.599	0.533	0.530	**0.776**
26 Decision	0.599	0.599	0.582	**0.805**
27 Decision	0.545	0.516	0.528	**0.752**
28 Decision	0.549	0.560	0.559	**0.786**
29 Decision	0.579	0.588	0.585	**0.829**
30 Decision	0.621	0.550	0.531	**0.799**
31 Decision	0.558	0.553	0.626	**0.795**
32 Decision	0.569	0.552	0.627	**0.818**
33 Decision	0.574	0.548	0.601	**0.785**
34 Decision	0.530	0.556	0.556	**0.751**
35 Decision	0.555	0.544	0.568	**0.754**
36 Decision	0.577	0.560	0.553	**0.777**

Source: self-made

The data presented in Tables 2 and 3 confirm the validity of the measurement model, as the variables and their indicators align with the parameters recommended by the literature (Hair, Hult, et al., 2019a). Therefore, the next step involves evaluating the structural model.

Evaluation of the Structural Model
The variance inflation factor (VIF) was used to check for collinearity in the structural model. The values were below the limit value of 5 (Hair, et al., 2019b), which means that none of the indicators reached critical levels of collinearity.

Influence of consumer attitude on online purchase decisions
Table 4 presents the data of the evaluation related to the direct relationship of the proposed model; initially, the evaluation of the consumer's attitude and the online purchase decision was carried out, reaching $\beta= 0.736^{***}$ with a significance of $p<0.001$, which determines a positive and significant effect with an R^2 of 0.583^{***}, accepting hypothesis H1.

Table 4 *Analysis of the Direct Relationship Model*

Relationship	Direct effect	95% confidence interval	R^2	Significance
Consumer attitude→ Online purchase decision	0.736	0.690-0.779	0.583***	0.000***

***≤0.001

Source: self-made.

Influence of friends in the relationship of the consumer's attitude in the online purchase decision

The mediation analysis explores the strength and significance of the beta and R2 coefficients of the purchase decision variable. Hypothesis H2 shows that the influence of friends mediates the relationship between consumer attitude and online purchase decision, and hypothesis H3 demonstrates that reference groups mediate the relationship between consumer attitude and online purchase decision (Baron & Kenny, 1986).

The first condition indicates that there must be a significant relationship between the independent variable consumer attitude and the dependent variable online purchase decision, see figure 3, a positive and significant effect is observed on the online purchase decision with a β=0.736*** and p<0.001, so the first condition is accomplished.

The second condition indicates that there must be a relationship between the independent variable consumer attitude and the mediating variable influence of friends and reference groups; as shown in figure 3, this condition is met, showing a positive and significant effect of the variable influence of friends β=0.726*** and p<0.001 and the influence of reference groups with β=0.692*** and p<0.001.

The third condition indicates that there must be a relationship between the mediating variable and the dependent variable, as can be seen in graph 2, this condition is fulfilled since the results of the variables influence of friends β=0.213*** and p<0.001, and the variable influence of the reference groups have a β=0.254*** and p<0.001, the third condition is accomplished.

The fourth condition indicates that when the independent variable, mediators, and dependent variable are integrated into the same model, the effect of the independent variable on the dependent variable must be substantially reduced. As shown in figure 3, H1 establishes an initial effect of the consumer attitude variable with the online purchase decision with a β=0.736***, and when the mediating variables influence of friends and reference groups are incorporated, we have a β=0.408*** and p<0.001. Thus, the fourth condition proposed by (Baron & Kenny, 1986) confirms and accepts the hypothesis H2 and H3.

Table 5 *Analysis of the Mediation Model*

Relation	Direct Effect	95% confidence Interval	R^2	Significance ($p < 0.001$)
Consumer attitude→ friends	0.726	0.672-0.767		<0.001***
Friends→online purchase decision	0.213	0.114-0.304		<0.001***
Consumer attitude→reference groups	0.692	0.638-0.738		<0.001***
Reference groups →online purchase decision	0.254	0.161-0.351		<0.001***
Consumer attitude → online purchase decision	0.408	0.325-0.497	0.671***	<0.001***
	Indirect effect	95% confidence Interval		Significance ($p < 0.001$)
Consumer attitude → friends → Online purchase decision	0.154	0.082-0.224		<0.001***
Consumer attitude → reference groups → Online purchase decision	0.176	0.112-0.241		<0.001***

*sig≤0.05; **sig≤0.01; ***sig≤0.001;
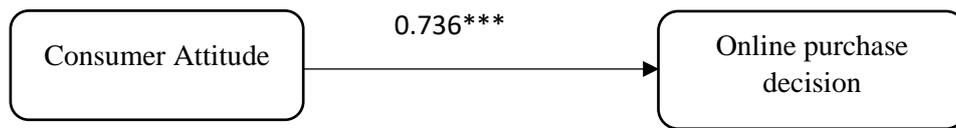
Source: self-made.

The following table summarizes the relationships evaluated in the study, and Figure 3 shows these results graphically.

**Table 6** *Summary of the research model*

Dependent variable: Purchase decision	Friends	Reference groups	Purchase decision	R^2
Consumer Attitude			0.736***	0.583
Mediation				
Consumer Attitude	0.726***	0.692***	0.408***	0.671
Friends			0.213***	
Reference groups			0.254***	
Change in R^2				15.09%

*sig≤0.05; **sig≤0.01; ***sig≤0.001;

Source: self-made.

Figure 2 *Direct Relationship Results*

Source: self-made.

Figure 3 *Indirect Relationships Results*
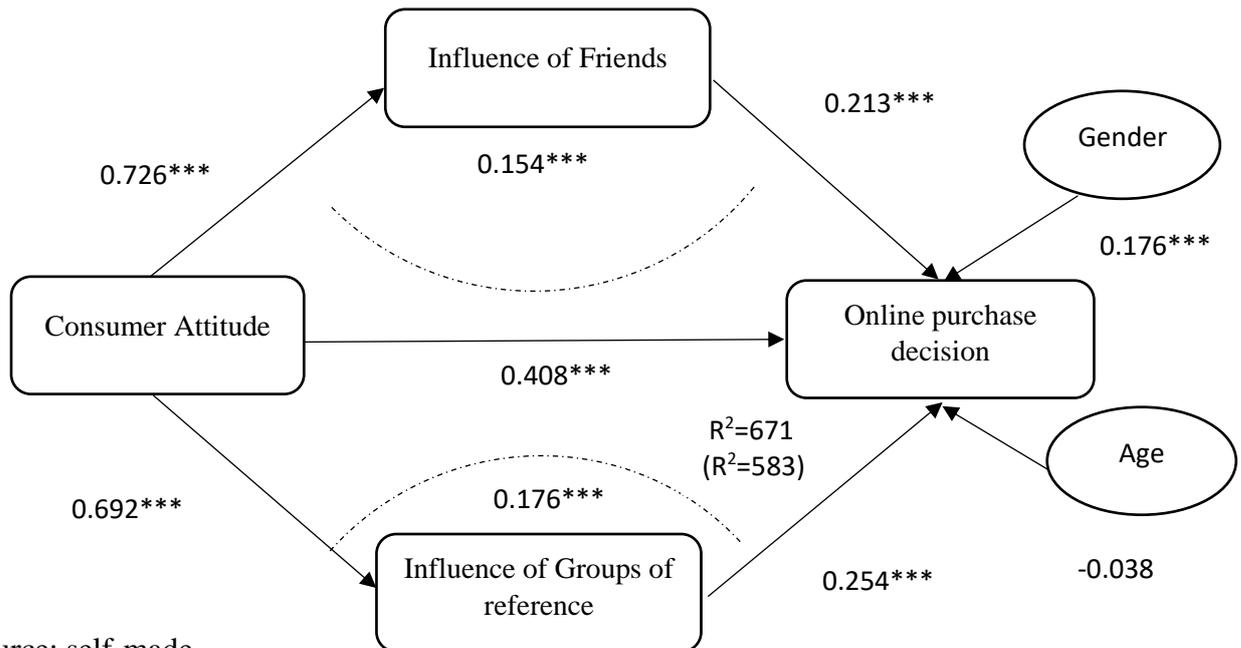
Source: self-made.

DISCUSSION AND IMPLICATIONS

This study demonstrates the role of the consumer's attitude in the online purchase decision and how the influence of friends and reference groups mediates it. The results of the initial model measuring the effect of consumer attitude on the online purchase decision show that the more positive the client's attitude, the greater their predisposition to buy the product, as Shirazi et al. (2022) proposed. Similarly, Errmann et al. (2019) found a positive effect between the consumer's attitude and the influence of friends and family on the online purchase decision. Errmann et al. (2019) stated that including the construct of friends' influence in the structural model detected a significant indirect effect. We also included the construct of reference groups, demonstrating a positive relationship between the consumer's attitude and the reference groups, which aligns our study with previous proposals (Abreu, 2019; Dalziel & De Klerk, 2020).The integral structural model showed a significant indirect effect of the consumer's attitude on the online purchase decision. Additionally, the significance of the initial relationship decreases

under the influence of friends and reference groups, confirming the mediating effect between the consumer's attitude and the online purchase decision, thus fulfilling the objective set.

The findings reveal that friends and reference groups sharing information through comments and recommendations in virtual media can facilitate online purchase decisions (Lăzăroiu et al., 2020; Zirena-Bejarano et al., 2022). The literature reveals that consumers regard the opinions of solid ties as more credible than those of weaker ties. Therefore, we presume that friends' comments significantly influence the final decision (Koo, 2016). Additionally, reference groups facilitate the online purchase decision by providing consumers with credible sources of accurate information. When uncertainty arises, individuals recognize these groups as a reference and use their information to make the final decision (Dalziel & De Klerk, 2020).

Specifically, our findings lead us to understand consumer behavior better when they consider the information shared by their friends and reference groups regarding their previous purchase experiences with products that interest them. This improves the evaluation process and leads to more successful decision-making in the online environment. The organization's marketing managers should consider these findings.

Conclusions

The study contributes to a better theoretical understanding of the proposed variables: consumer attitude (Ajzen & Fishbein, 1977), the influence of friends and reference groups in online purchase decisions (Ajzen, 1991; Akroush & Al-Debei, 2015; Gao et al., 2012). The study establishes a connection between these variables by incorporating an initial model linking the consumer's attitude to the online purchase decision and a second model incorporating the mediating variables of friends and reference groups. The study demonstrates that companies and consumers who consider the information shared by both groups will find the online decision-making process facilitated. To our knowledge, previous studies have not jointly studied the proposed variables as we propose in this work, which makes our proposal unique.

The results show the importance of individual participation in communication with friends and reference groups, especially when there are cognitive limitations regarding a particular situation. Consumers can share information with their friends, who can then socialize and disseminate it (Ding et al., 2020). An individual may have much information about a particular product that identifies a specific type of attitude of interest to their friends or reference groups, generating a probability of change or influence on them (Kozitsin, 2023). Following that line of reasoning, friends and reference groups offer credibility and trust in sharing their shopping experiences, and this information is easily accessible through virtual channels, such as social networks, applications, and others. In

addition, reference groups offer information on lifestyles, consumed products, qualities, and characteristics that consumers consult in uncertain circumstances and when they need credible information (Sugito et al., 2019). The information obtained by the reference groups increases customer knowledge, generating confidence and ease in the online purchase decision-making process (Hoonsopon & Puriwat, 2016; Yin et al., 2019).

The research also makes a practical contribution to marketing managers of organizations. Companies should pay close attention to the influence of friends and reference groups and include them in their strategies when targeting products for younger generations. This confirms the results proposed by Dalziel and De Klerk (2020). To make this viable, we should create virtual spaces where communities of friends and reference groups can meet share information, comments, and purchase experiences on various products and services. These spaces can display various information that builds knowledge in consumers, especially those of younger generations who spend many hours connected to virtual environments.

However, the study has certain limitations. The research is cross-sectional, and given the speed of change in technology and the virtual world, it is challenging to carry out longitudinal studies, leading to varied results over time. Another identified limitation is that the study occurred in an emerging country with specific connectivity difficulties, in contrast to more developed countries where this issue does not exist. Nonetheless, analyzing the results to understand how the variables behave under the exposed characteristics is interesting.

Future research lines should analyze the behavior of different generations, as generational characteristics may influence consumer reactions to online shopping moments.

Conflict of interests
None

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APPENDIX

	ATTITUDE
1Actitud	Shopping online is so much fun for me.
2Actitud	I associate online shopping as a recreational activity.
3Actitud	I like to try new and different applications, services or online shopping technologies.
4Actitud	Shopping online can be stressful.
5Actitud	Shopping online becomes frustrating for me
6Actitud	I feel that shopping online is unreliable and can lead to scams.
7Actitud	Online shopping is tedious and complicated
8Actitud	Online purchases consume a lot of my time

9Actitud	When I shop online, I feel like I'm running a high risk.
10Actitud	Shopping online is informative
	INFLUENCE OF FRIENDS
11Friends	My friends think that I should shop online as much as they do.
12Friends	My friends wish I could shop online more often.
13Friends	My friends support my online shopping.
14Friends	My friends agree that buying online is a quick and efficient decision
	INFLUENCE OF GROUPS OF REFERENCE
15 GroupsRef	The referral groups I follow shop online all the time.
16 GroupsRef	The referral groups I follow wish I could shop online.
17 GroupsRef	The reference groups I follow suggest that I shop online.
18 GroupsRef	The reference groups that I follow motivate me to continue shopping online.
	PURCHASE DECISION
19 Decision	I usually buy new products on the recommendation of other people.
20 Decision	A national product or service recommendation has more impact than an international one.
21 Decision	I change my way of acting due to the influence of my social environment.
22 Decision	My opposition to a reference group generates rejection towards related brands.
23 Decision	When I buy a product from a certain brand, it gives me a higher status.
24 Decision	The products I consume reflect my status in society.
25 Decision	I trust people my age more when looking for a product recommendation.
26 Decision	Over the years I am more selective when buying.
27 Decision	The publicity that I am looking for must be directed to a certain social group.
28 Decision	I take into account current fashion and trends when buying a product.
29 Decision	I seek product recommendations before I buy based only on my personal judgment.
30 Decision	I take into account the values of the person who recommends a product to me.
31 Decision	I look for brands that motivate me to be better

32 Decision	I seek to satisfy my needs with brands that give me prestige
33 Decision	I choose brands that transmit their own identity and not copies
34 Decision	I interact with brands that they can learn something from.
35 Decision	After a purchase from a microentrepreneur brand I feel good
36 Decision	I prefer to buy from a brand of micro-entrepreneurs because of the message they convey

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