Factors Influencing Online Shopping in the Kingdom of Saudi Arabia

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ABSTRACT

As online shopping is a rapidly growing sector in the Kingdom of Saudi Arabia (KSA), this study explored the influence of multiple factors on this topic: age, gender, and payment responsibility, which was considered for the first time. Data were collected from five focus groups with 30 participants to explore online customers' perceptions and practices. Based on the findings, a questionnaire was built and distributed, and 2,109 responses were received revealing different factors affecting online shopping in the KSA: the user experience with the Internet and online shopping, the product variety and diversity that online shopping provides, the competitive prices for online products, the convenience provided, and the security of online shopping. The analysis indicated insignificant gender and payment responsibility differences for all former factors. However, age variations were found for some factors, revealing that information regarding online customers' perceptions and practices is important for both the existing online companies to improve their adapted marketing strategies and those striving to enter the market.

Keywords-age; gender; Kingdom of Saudi Arabia; online shopping; payment responsibility

I. INTRODUCTION

According to a technical report issued recently by the Saudi Communications, Space and Technology Commission (CST), the percentage of purchasing goods or services online is 62.6% and more females engage in online shopping than males (74.4% vs. 53.6%) [1]. According to [2], Saudi Small and Medium Enterprises (SMEs) previously relied on social networks to sell their products and services through straightforward direct messages. However, with the emergence of e-commerce platforms like Salla and Zid, the majority of SMEs now run their businesses online through online stores. These platforms assist SMEs in starting and expanding their online businesses by developing and designing their online stores, managing their inventory, offering various digital payment options, and providing marketing solutions. As online shopping is widespread and the perspectives of online shopping have not been widely examined to identify the factors that comprise them, this study aims to advance the knowledge on this subject and explore the influence of gender, age, and payment responsibility on online shopping. The last factor, payment responsibility, was targeted because it is common in Saudi households that, religiously and legally, the husband/father is responsible for the life expenses of his wife and offspring. Therefore, some online buyers are not the same person who is financially responsible, which might affect their perspective on online shopping. Consequently, the objective of this study was to evaluate the perspectives of online shopping and to provide insight into the attitudinal factors that affect online shopping in the KSA. This study aimed to answer the following research questions: (1) What are the underlying factors that affect online shopping in the KSA? (2) Are there differences between male and female online shopping tendencies? (3) Does the age of shoppers influence their online shopping tendencies? (4) Is there a resulting impact from who is responsible for paying for online shopping? This study explores the dimensions of people's practices and perceptions toward online shopping in the KSA and could be beneficial for developing and adapting the marketing strategies of any online company striving to enter the markets. Additionally, this study can provide a basis for future cross-cultural research on this topic among the countries in the region.

II. LITERATURE REVIEW-HYPOTHESIS FORMING

Previous research on factors that affect online shopping [3] was divided into three major groups: characteristics of the Internet as a purchase channel [4-6], characteristics of customers [7-9], and characteristics of the website/product [10-12]. Using the Internet to purchase items includes characteristics such as perceived risk, utility, convenience, time-saving, ease of ordering, service quality, trust, accessibility, and the expertise required for online shopping. Demographics, psychological factors, inventiveness, familiarity with computers and the Internet, and inclinations toward online and consumer shopping are some of the traits of customers. The attributes of the product/website comprise the attributes of the product, the features of the website, and the risk mitigation strategies (money-back guarantee, offering reputable brands, discounted price, security, and privacy). In [13], it was found that the main factors influencing cyberspace buying behaviors are the security of online shopping, product prices, service

quality, and commercial credits, while secondary factors included age, gender, education, and store design.

This study explored online shopping attitudes related to Internet characteristics as a purchase channel and the influence of three subfactors of the customer characteristics group of factors, gender, age, and payment responsibility, on attitudinal factors. Relatively few studies have looked at how attitudes toward online shopping are influenced by these factors, despite the growing number of Internet users and shoppers. Furthermore, several studies addressing these problems concentrated on testing theories without first determining the underlying attitudinal components. Online shopping is viewed from a variety of perspectives and motivations. However, few studies attempted to identify the key elements of online shopping viewpoints. In [14], seven constructs of general shopping orientation were found: in-home shopping tendency, price consciousness, brand/fashion consciousness, confidence in the ability to purchase, brand/store loyalty, and shopping enjoyment. To measure the attitudinal factors that influence the success of Internet commerce, in [15], two sets of variables were used that were labeled means and fundamental objectives, a classification proposed in [16]. In [15], five constructs were found when analyzing means objectives, which can be interpreted as online product selection, online payment, trust in online vendors, travel for shopping, and online shipping errors. Four constructs were measured to determine the fundamental objectives: Internet product value, Internet customer relations, Internet ecology, and ease of shopping online. Later, in [9], five categories of attitudinal characteristics of online shopping were identified: convenience, security concerns, personality, user experience, and prices. Based on the former arguments, the following hypothesis was proposed:

H1: *Multiple factors influence the practices and perspectives of online shopping*.

Many factors have been identified to influence online buying practices, among which gender is a frequently used demographic variable. For instance, in [17], it was found that while perceived value is greatly impacted by the quality of e-services and products, the magnitude of these effects varies depending on age and gender. Male consumers prioritized e-service quality, while female consumers were more interested in product quality. In addition, in [18], it was found that men generally had more favorable perspectives toward e-tailers (electronic retailing), online purchase/repurchase, and e-payments than women. Moreover, the results of [19] identified significant gender differences in visual attention to online shopping information and shopping perspectives about the products presented. Female participants visually attended most online shopping information areas more than males, and visual attention to consumer opinion areas influenced their perspectives on products to some extent. Although males' visual perspectives were lower than females', visual attention to product information and consumer opinion areas extensively affected their shopping attitudes. Conversely, in [20], it was found that when it comes to online shopping, women tend to perceive more risk. Moreover, women are less likely than men to adopt e-commerce because they do not trust it to the same degree as men [7, 20-21]. Alternatively, in [22], it was asserted that male consumers are less inclined to think of the Internet as a helpful tool for shopping. According to [23], gender differences exist in online shopping where women are affected by far more factors than men. Therefore, the following hypothesis was formed:

H2: *Practices and perspectives of online shopping vary according to gender*.

In addition to gender, age is also identified as a demographic factor that influences online shopping practices. In [21], it was found that age exerts a negative influence on online shopping for goods and services. In [17], it was found that older consumers were more preoccupied with product quality, while younger consumers focused more on the quality of e-services. Furthermore, in [24], it was shown that older buyers were more concerned with the sacrifice they make, the time, money, and effort required to obtain a good or service, compared to younger ones. The findings in [25] suggest a strong correlation between age and attitude towards online shopping, where young consumers were more keen on online shopping. In [26], it was found that most online consumers were male (52%) and 18-25 years old (69%). Therefore, the following hypothesis was proposed:

H3: *Practices and perspectives of online shopping vary according to age*.

The third demographic factor for this study was the responsibility for paying, which is related to income level. In [21], it was found that income and online purchase of goods and services are positively correlated. In [27], it was found that, among demographic factors, gender and income were the main factors influencing online shopping practices. The results from [28] show that income, as a demographic variable, has a significant impact on consumers' online shopping frequency. In [29], it was found that income level does not affect online shopping for necessary items, such as computer accessories, and customers of all income levels shopped mostly during discounts and special offers. In [30], it was found that income level has a significant influence on the relationship between convenience, website functionality, security, customer service, and customer satisfaction with online shopping. However, these studies did not discuss whether buyers were not the same person who is responsible for paying for the online shopping transaction, where it seems to most affect perspectives towards online shopping. Based on the foregoing discussion, the following hypothesis was proposed:

H4: *Practices and perspectives of online shopping vary according to who is responsible for paying the online purchases*.

Analyzing the influence of this factor on online shopping practices was not considered before and it would be beneficial to consider it and to know if there is a resulting impact from who is responsible for paying for online shopping.

III. RESEARCH METHOD

This study was divided into two successive phases: conducting focus groups and administering a questionnaire. This method was designed to explore the perspectives and

practices of online shopping customers. Based on this investigation, the topic was studied and investigated comprehensively, and the results reflect the empirical attitudes and behaviors of customers in the KSA toward online shopping.

A. First Phase: Focus Groups

Focus groups allow participants to formulate new questions and concepts and facilitate the process of investigating and analyzing their views and concerns [31]. Focus group meetings are social events that typically include six to eight people [32]. In [33], it was reported that it may take up to 32 phone calls or in-person meetings to find just eight people for a group. These people are encouraged to discuss issues and form their opinions and thoughts through debate [34]. Without passing judgment on the participants' viewpoints, a moderator sets the topic of the conversation and assists in generating opposing points of view [35]. To analyze data, quotations from focus groups were categorized into types of descriptions or concepts and then compared against targeted concepts of the online shopping perspectives [36]. Five focus groups were conducted during January 2023 with 30 participants: a male-only group (seven participants), two female-only groups (six participants each), and two mixed-gender groups (five females and six males). All focus group participants were over 18 years old and randomly recruited. The focus groups were useful in providing preliminary information about areas that would be useful to focus on in the next step of data collection.

B. Second Phase: Questionnaire

Subsequently, a questionnaire was designed to evaluate the possible influence of different factors on online shopping perspectives. The questionnaire was built based both on [37] and the outcomes of the focus groups and was validated using exploratory interviews. To convey the intended meaning, some parts were reworded, while others were added or removed. Specifically, respondents were asked to determine whether the suggested elements of the questionnaire reflected their perspectives on online shopping and to indicate additional elements that they considered important factors that needed to be investigated to determine the final and relevant list of statements related to perspectives on online shopping. The survey instrument consisted of two parts. The first part gathered gender, age, and payment responsibility, and the second part included 28 five-point Likert statements ranging from "strongly disagree" to "strongly agree". The questionnaire was created using Google Forms and targeted random subjects aged 18 and over living in the KSA. The completion time of the questionnaire was 10-15 minutes. Once the answers were collected, SPSS v.20 was used to process the data.

IV. RESULTS

A. Results from Focus Groups

Analyzing the data from the focus groups revealed five main factors related directly to online shopping that influenced buyer practices in the KSA. These factors are as follows:

- Factor 1: Security consists of variables that relate to trust in online shopping, the feeling of being safe to give out personal or financial information, the use of personal details for particular purposes, the reliability of online shopping, and the safer feeling when using the option "pay in cash when receiving the order" more than paying by credit card.
- Factor 2: Convenience refers to the possibility of shopping from home at any time that is convenient for the customer, time and money savings, and the superior comfort that online shopping provides over traditional.
- Factor 3: Price referred to questions on price concerns, such as offering competitive prices and the customer being able to seek the best price before purchasing, providing the best deal online, and prices being cheaper online compared to traditional shopping.
- Factor 4: User experience includes variables that were closely tied to the ease of placing an order online, the required service provided, and the simplicity and ease of buying online.
- Factor 5: Product variation includes variables about providing products that cannot be found in traditional shopping, more information about products, more product choices, and better product selection.

These factors were used to build the questions in the questionnaire that was then distributed to the respondents.

B. Questionnaire Results

There were 2,109 responses to the questionnaire, the majority of which were women (78.7%) while men were 21.3%. Most of the participants were in the 18-25 age group at 73.9%, followed by the 26-35 age group at 12.8%. The age group with the smallest population what the one of people aged over 56 years, with a rate of 1%. When the respondents were asked how many times they shopped online during the past month, most participants (64%) picked one to four times, while the least number of individuals (only 170, 8%) stated they used online shopping more than nine times during the past month, which can also be described as twice a week. A total of 281 participants, 13%, did not use online shopping for different reasons, such as "I prefer the traditional way of shopping to ensure a product's size, color, and quality", "I didn't need to buy anything online last month", "I was running out of money last month", and "I don't trust online shopping". As for online shoppers, most of them (80%) were responsible for paying for their purchases with their own money, while 20% depended on another person to pay, usually a parent (mostly the father) or the husband. The reason given was that this is one of his responsibilities and/or the buyer had no private income.

1) Security

Table I shows that a high percentage of the participants who used online shopping during the last month trust online shopping and consider it reliable, and 80% of them feel safer when paying in cash when receiving the order. Meanwhile, a moderate percentage, ranging from 61% to 67%, felt safe to give out personal or financial information online.

2) Convenience

As Table II illustrates, most informants agreed on the convenience that online shopping provides, while 70% to 93%

of them were highly influenced by the seven variables related to this factor, especially the 24-hour availability of online shopping. However, the least agreed-upon element related to not being disturbed by sales promotions during online shopping.

TABLE I. SECURITY AND ONLINE SHOPPING PRACTICES (N = 1,828)

	Elements	Mean	SD	%	Degree of agreement
1	Online shopping is reliable	3.73	1.02	75	High
2	I feel safe to give out personal information	3.06	1.18	61	Medium
3	I feel safe that my personal information will be used for a particular purpose	3.36	1.15	67	Medium
4	I feel safe to give out financial details	3.10	1.19	62	Medium
5	I trust online shopping	3.45	1.06	69	High
6	I feel safer when using the option "pay in cash when receiving the order"	3.99	1.14	80	High

TABLE II. CONVENIENT ONLINE SHOPPING PRACTICES (N = 1,828)

	Elements	Mean	SD	%	Degree of agreement
1	When I shop online, I am not hassled by sales promotion activities	3.51	1.29	70	High
2	When I shop online, I don't feel pressure to finalize the purchase process	4.06	1.05	81	High
3	Online shopping saves time	4.52	0.79	90	Very high
4	Online shopping saves money	3.56	1.27	71	High
5	Online shopping offers 24-hour access	4.67	0.64	93	Very high
6	Online shopping is more convenient than traditional shopping	4.41	0.83	88	Very high
7	Online shopping offers the comfort of home	4.60	0.68	92	Very high

3) User Experience

As shown in Table III, a very high percentage of participants (76%–92%) agreed on the speed and ease of online shopping and the online ordering process. However, the least agreed upon encountering problems during online shopping.

TABLE III. USER EXPERIENCE AND ONLINE SHOPPING PRACTICES (N = 1,828)

	Elements	Mean	SD	%	Degree of agreement
1	It is easy to place an order online	4.61	0.59	92	Very high
2	The Internet provides the required service	4.37	0.78	87	Very high
3	Online shopping allows shopping at one's own pace	4.50	0.71	90	Very high
4	I encounter no problems when shopping online	3.82	1.06	76	High
5	Online shopping is fast and easy	4.47	0.70	89	Very high
6	I have no problems using Internet technology	4.45	0.77	89	Very high

4) Product Variations

Out of all the participants, 83%–90% uses eagerly online shopping, as it provides more assortment and diversity of products than traditional shopping, as seen in Table IV.

TABLE IV. PRODUCT VARIATION AND ONLINE SHOPPING PRACTICES (N = 1,828)

	Elements	Mean	SD	%	Degree of agreement
1	Online shopping provides more information about a product than traditional shopping	4.17	0.98	0.83	High
2	Online shopping provides products I cannot find using traditional shopping	4.36	0.79	0.87	Very high
3	Online shopping provides more product choices in size and color	4.44	0.73	0.89	Very high
4	Online shopping provides more selection of products to choose from	4.48	0.68	0.90	Very high

5) Price

As shown in Table V, a very high percentage of individuals (69%-91%) agreed that the prices online were reasonable and found the best deals and better prices compared to traditional shopping. The least agreed upon was that the elements related to online prices are fixed, with no hidden costs.

TABLE V. PRICE AND ONLINE SHOPPING PRACTICES (N = 1,828)

	Elements	Mean	SD	%	Degree of agreement
1	The Internet allows one to look for the best price before purchasing	4.55	0.68	0.91	Very high
2	It is easy to get the best deals online	4.28	0.81	0.86	Very high
3	Online shopping offers competitive prices	4.38	0.76	0.88	Very high
4	I can get better prices by shopping online compared to traditional shopping	4.35	0.82	0.87	Very high
5	Prices for online shopping are fixed and have no hidden costs	3.43	1.17	0.69	High
6	In online shopping, I can learn the price quickly and accurately	4.26	0.84	0.85	Very high

6) All Five Factors

Table VI shows that a high percentage of the participants agreed with all five factors. The participants' online practices and perspectives were influenced very significantly by the user experience, where the average was 4.37 (87%), followed by the product variety and diversity that online shopping provides. The percentage for this factor was the same as the former; however, the average was slightly less at 4.36. The effect of the remaining three factors, price, convenience, and security, is still high, with 84% for the first two factors and 69% for security. Considering the factors resulting from the analysis, H1 is verified.

TABLE VI. ALL FIVE FACTORS.

	Elements	Mean	SD	%	Degree of agreement
1	Convenience	4.19	0.55	0.84	High
2	Security	3.45	0.79	0.69	High
3	User experience	4.37	0.57	0.87	Very high
4	Price	4.21	0.60	0.84	High
5	**Product variation**	**4.36**	**0.63**	**0.87**	**Very high**

7) Gender Differences

Table VII shows the results of the T-test for two independent samples to identify differences in online shopping practices between males and females. The *T* value was not statistically significant (*T* value is insignificant at p-value > 0.05) for the five factors: convenience, security, user experience, prices, and product variation. This confirms that gender does not affect online shopping practices, meaning that males and females have similar perspectives of online shopping practices and their opinions do not differ greatly, which disproves H2.

TABLE VII. GENDER DIFFERENCES

		N	Mean	SD	T	p-value	Signifi-cance
Convenience	Male	364	4.18	0.55	-0.331	0.741	Not significant
	Female	1,464	4.19	0.55			
Security	Male	364	3.43	0.80	-0.528	0.598	Not significant
	Female	1,464	3.45	0.79			
User experience	Male	364	4.34	0.57	-0.981	0.327	Not significant
	Female	1,464	4.38	0.57			
Price	Male	364	4.19	0.63	-0.775	0.438	Not significant
	Female	1,464	4.21	0.59			
Product variation	Male	364	4.31	0.69	-1.817	0.069	Not significant
	Female	1,464	4.38	0.61			

8) Age Differences

Table VIII illustrates the results of the ANOVA test to identify the disparities in online shopping practices according to age. The F-value was statistically significant, with a p-value < 0.05 for user experience, price, and product variation, indicating that age influences online shopping practices on these factors. Meanwhile, the F-value was not statistically significant, with a p-value > 0.05 for convenience and security, implying that age does not affect the convenience and security of online shopping practices. Therefore, H3 was partly verified regarding user experience, prices, and product variation and was partly disproved for convenience and security.

9) Payment Responsibility Differences

Table IX displays the results of the ANOVA test to identify distinctions in online shopping practices according to payment responsibility. The F-value was not statistically significant for all five factors. This suggests that payment responsibility does not affect online shopping practices and disproves H4.

V. DISCUSSION

As mentioned above, the percentage of buying goods or services online in the KSA is more than 62% [1]. Therefore, it is important to examine the factors affecting the practices and perspectives of online shoppers and advance the knowledge of this subject.

TABLE VIII. AGE DIFFERENCES

		Sum of Squares	df	Mean Square	F	p-value	Signifi-cance
Convenience	Between groups	1.265	4	0.316	1.062	0.374	Not significant
	Within groups	542.823	1,823	0.298			
	Total	544.088	1,827				
Security	Between groups	4.830	4	1.207	1.930	0.103	Not significant
	Within groups	1,140.610	1,823	0.626			
	Total	1,145.440	1,827				
User experience	Between groups	9.832	4	2.458	7.714	0.000*	Significant
	Within groups	580.874	1,823	0.319			
	Total	590.706	1,827				
Price	Between groups	5.406	4	1.352	3.781	0.005*	Significant
	Within groups	651.715	1,823	0.357			
	Total	657.121	1,827				
Product variation	Between groups	18.226	4	4.556	11.825	0.000*	Significant
	Within groups	702.459	1,823	0.385			
	Total	720.685	1,827				

*The mean difference is significant at the 0.05 level.

TABLE IX. PAYMENT RESPONSIBILITY DIFFERENCES

		Sum of Squares	df	Mean Square	F	p-value	Signifi-cance
Convenience	Between groups	2.152	3	0.717	2.414	0.065	Not significant
	Within groups	541.936	1,824	0.297			
	Total	544.088	1,827				
Security	Between groups	1.753	3	0.584	0.932	0.425	Not significant
	Within groups	1,143.687	1,824	0.627			
	Total	1,145.440	1,827				
User experience	Between groups	1.272	3	0.424	1.312	0.269	Not significant
	Within groups	589.435	1,824	0.323			
	Total	590.706	1827				
Price	Between groups	1.312	3	0.437	1.216	0.302	Not significant
	Within groups	655.810	1,824	0.360			
	Total	657.121	1,827				
Product variation	Between groups	1.690	3	0.563	1.429	0.232	Not significant
	Within groups	718.995	1,824	0.394			
	Total	720.685	1,827				

Based on the analysis, five factors were found to greatly influence the practices and perspectives of online customers (security, convenience, user experience, price, and product

variation), supporting the first research hypothesis and corroborating the findings of [9]. Consequently, this suggests that companies trying to sell through websites should consider the former factors and their influence on customers' online practices and perspectives. More online companies must allow customers to pay in cash when receiving the requested order, which, based on the analysis, is an important element that improves the security of online shopping. At the same time, web designers should request minimal personal and financial information from customers and make the security and privacy policies for such information as clear and simple as possible to them. Moreover, to minimize any insecurity and avoid inconvenience, websites must not share this kind of information with a third party unless they have clear permission from the customer. Also, online companies must decrease sales promotions as much as possible, as the results show that it disturbs online customers. According to [1], the percentage of Internet distribution in the KSA was 98.6% in 2022, and, as detailed in the report, it is widely used by individuals of different age groups, from 10 years to 74 years, which can explain the high percentage of participants with good experience on Internet technology generally and online shopping specifically. In this case, online companies should consider the speed and ease of online shopping and the process of ordering online. Another factor motivating customers to buy online instead of traditional shopping is the variety and diversity of products online, which companies can enhance with reasonable prices. However, they must ensure that no costs are hidden, otherwise, they will lose credibility.

Analysis of gender disparities among participants indicated insignificant gender variations in all five factors. These findings contrast with those of [14, 17, 20-23, 27]. Similarly, the analysis of payment responsibility differences among subjects indicates insignificant disparities for all five factors, meaning that whoever is responsible for paying has similar views of online purchasing practices, and their opinions do not differ considerably.

Interestingly, the analysis of age variations among the respondents indicated insignificant age differences for two factors: convenience and security. That is, regardless of age, online shoppers have similar views of online shopping practices and perspectives. However, the age differences were significant for the remaining three factors: price, user experience, and product variation.

It is worth mentioning that the data reflected the actual daily issues that affect online shopping by concentrating on five areas that were selected from the focus groups, and the questionnaire was built based on this. The questionnaire was useful and sufficient to measure the practices, perceptions, intentions, attitudes, and opinions of online shoppers, and it provided a quick, economical, and efficient way to collect a lot of data from a large sample (2,109 responses). However, while the current study was exploratory and used a self-reported approach that was as transparent as possible to allow others to examine and build upon this work, future research should take a different approach that relies on gathering practical practices to move beyond this initial exploration of shoppers' practices and perceptions to a more confirmatory approach. For e-commerce developers, doing this will produce a more trustworthy knowledge base.

VI. CONCLUSION AND FUTURE WORK

KSA marketers could use the results of this study as a basis for developing online shopping. Furthermore, the results of this study can be used to understand the practices and perspectives of online customers in the KSA and provide a basis for future cross-cultural research of similar studies between countries in the region. Online vendors in the KSA can create effective marketing strategies based on the five attitudinal factors identified. For future research, the amount of questions on income, the average amount of time spent on the Internet, the types of websites visited, and the products purchased could be increased. In addition, it would be beneficial to address the distinction between online shopping practices before and after the COVID-19 pandemic.

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