Original Research

Volume 16, No. 3, 2023 OPEN ACCESS

Navigating the Digital Marketplace: A Holistic Model Integrating Social Media Engagement and Consumer Behavior Factors to Enhance Online Shopping Adoption

*Nasr Abdulaziz Murshed[1]**, Erginbay Ugurlu**[2]

[1]Business Management program, Institute of Graduate Studies, Istanbul Aydin University, İstanbul, Türkiye
[2]Department of Economics and Finance, Istanbul Aydin University, İstanbul, Türkiye

Correspondence*:
Address: Beşyol, İnönü Cd. No. 38, Küçükçekmece, İstanbul, Türkiye 34295 | e-mail: dr.nasrabdulaziz@gmail.com

Abstract

Objective: This study aims to explore the intricacies of online consumer behavior in Yemen and build a model to drive online shopping adoption by investigating the relationships among various factors - including social media engagement, awareness, social cognition, online business perception, perceived price value, usability, and adoption intention - within the Yemeni context.

Design/Methods/Approach: Employing a quantitative research framework, this study utilized established scales adapted to Arabic. A structural equation model was developed using Amos 25 to test hypothesized causal relationships among the variables. Data collection was done through an online survey distributed to social media users in Yemen between May and October 2022. Statistical power calculations confirm a robust sample size of 395 participants for the study SEM model.

Findings: Correlation analysis revealed strong relationships between various factors, highlighting online business perception's substantial correlation with adoption intention. Structural equation modeling unveiled significant associations, indicating the positive impact of social cognition on social media engagement, the interconnectedness of awareness, social cognition, usability, and adoption intention, and the influential role of perceived price value in adoption intentions. The research also identified indirect effects and moderating influences, particularly related to prior online shopping experiences.

Originality/Value: This research significantly contributes by being among the pioneering studies to delve into consumer behavior and online business in Yemen. It offers unique insights into the role of social media engagement in driving online shopping adoption, filling a critical gap in understanding consumer behavior within the Yemeni context. These findings contribute to the broader literature on e-commerce, particularly in regions where online shopping practices are emerging.

Practical/Policy implication: The study's findings emphasize the interconnected nature of various online shopping behavior factors, necessitating a holistic approach in business strategies. Businesses can leverage robust social media engagement to drive targeted marketing strategies, acknowledging its pivotal role in shaping consumer behavior towards online shopping. Focusing on enhancing visibility and promoting awareness of products/services is crucial. Moreover, investing in user-friendly interfaces, delivering positive online business experiences, offering competitive prices, and effectively communicating value propositions are key strategies to bolster adoption intentions.

Keywords: Online shopping adoption, Online consumer behavior, Social media engagement, E-commerce, Adoption intention.

JEL Classification: M310, M300

1. Introduction

The realm of commerce has undergone a profound metamorphosis propelled by the advent of digital technologies, ushering in a significant evolution in marketing strategies and fundamentally reshaping consumer behavior on a global scale. This transformative wave, driven by the emergence of online marketplaces and the pervasive influence of social media, has introduced a multitude of challenges and opportunities in understanding the intricate fabric of consumer preferences and purchasing habits.

Despite Yemen's context of low internet penetration, the prevalent use of mobile phones for communication and limited internet access have seemingly created avenues for growth, particularly for mobile-based businesses such as mobile apps and content delivery services. In Yemen's evolving digital landscape, the current panorama of online shopping depicts a rising trend of digitalization and growing adoption of e-commerce platforms despite inherent challenges related to infrastructure, logistics, and the accessibility of the internet.

However, the ongoing conflict and instability in Yemen have posed considerable obstacles to obtaining comprehensive and up-to-date market data, making it challenging to ascertain precise market share figures and growth rates for online businesses. Nonetheless, amidst these adversities, there appear to be niche opportunities, notably in sectors like humanitarian aid, medical services, and the e-commerce domain for essential goods, suggesting potential areas for growth and development amid adversity.

The strategic significance of comprehending consumer behavior within the Yemeni market is underscored by Yemen's geopolitical importance in the Middle East and the horn of Africa region. This research endeavors to illuminate the nuanced interplay of cultural, economic, and technological factors within Yemen's emerging market context, offering insights not only pertinent to the local landscape but also contributing to a broader comprehension of how diverse factors influence consumer choices on a global scale.

Despite the growing interest in understanding consumer behavior and online business practices, a noticeable gap exists in the literature focusing on Yemen. Often, available insights are fragmented or lack a comprehensive exploration of interconnected variables that influence consumer decisions within Yemen's digital marketplace. This study seeks to address this gap by undertaking an exhaustive investigation that thoroughly examines the relationships between social media engagement, consumer perceptions, and online shopping behavior within Yemen's unique contextual framework.

Variables such as social media engagement, awareness, social cognition, online business perception, perceived price value, usability, and adoption intention have emerged as pivotal determinants significantly shaping consumer choices within the digital marketplace. Through a meticulous survey conducted among social media users in Yemen and employing rigorous analysis techniques, including correlation analysis and structural equation modeling, this study aims to unravel significant associations and unveil the intricate interplay among this critical factor by addressing several key questions pivotal to understanding consumer behavior in Yemen's digital marketplace: How does social media engagement exert influence on consumers' behavior concerning online shopping in Yemen? What are the complex interrelationships among variables such as awareness, social cognition, online business perception, price value, usability, and adoption intention concerning online shopping behavior within Yemen's unique context? Furthermore, the study aims to explore the impact of prior experience on the factors affecting online shopping behavior within Yemen's distinct market dynamics.

The implications of understanding these variables extend beyond businesses solely operating in the digital sphere. Policymakers and marketers navigating the complexities of an ever-evolving digital economy stand to glean significant benefits from these insights. This research endeavors to delve deeply into the complex relationship between social media engagement and the adoption of online shopping practices within Yemen's distinctive context. The resulting insights are expected to offer a comprehensive understanding and inform strategies tailored to Yemen's digital consumer landscape, thereby contributing to the broader body of knowledge concerning consumer behavior and digital markets.

This article comprises four vital sections. Firstly, the "Literature Review and Hypotheses Development" establishes a comprehensive framework for understanding online consumer behavior in online shopping. Secondly, the "Method" details the meticulous approach using Structural Equation Modeling (SEM) to validate the model. The third part, "Results and Discussion," thoroughly analyzes variable relationships and confirms hypotheses, outlining implications for practice and theory. Finally, the "Conclusion" encapsulates key findings, emphasizing the role of social media engagement and identifying critical factors driving online shopping adoption while suggesting avenues for future research.

2. Literature Review and Hypotheses Development

The research incorporated various research variables in the investigation of online consumer behavior towards online shopping: social media engagement, social cognition, awareness, online business perception, perceived price value, usability, and adoption intention for online shopping. These variables were adapted from established scales into Arabic done previously and currently under publishing, including the social media engagement scale by Ni et al. (2020), the online consumer behavior scale by Ansar (2019), and an extended scale derived from the unified theory of acceptance and use of technology developed by Venkatesh, Thong, and Xu (2012).

Social media engagement, a key factor, signifies the extent of consumer interactions with retailers on social media platforms, encompassing activities such as liking, commenting, sharing content, and participating in contests. This engagement can foster increased brand awareness, positive brand attitudes, and heightened purchase intentions (Ni, Li, & Chen, 2020).

Furthermore, online business perception represents consumers' overall impressions of online retailers, influenced by factors like website design, product selection, pricing, customer service, and reputation, with credibility and trustworthiness playing pivotal roles (Park, Han, & Kaid, 2012). Social cognition delves into the impact of social factors on consumer choices, including peer group influence, social media trends, and recommendations from friends and family, highlighting the sway of external opinions on purchasing decisions (Adnan, 2014).

In addition, awareness relates to consumers' knowledge of online shopping and their grasp of its advantages and disadvantages, with higher awareness translating to greater consideration of online shopping as a viable purchasing option (Kotler & Keller, 2016). Price value concerns consumers' perception of a product's worth in relation to its price, particularly significant in the context of online shopping, where price comparisons are common, affecting purchase decisions (Venkatesh & Davis, 2000).

Moreover, usability encompasses the ease of use and perceived usefulness of e-commerce websites, with consumers favoring sites that offer effortless product searches, price comparisons, and hassle-free transactions (Davis, 1989). Finally, adoption intention signifies consumers' inclination to embrace or continue using e-commerce platforms for their purchases, linked to positive attitudes, convenience, and perceived value, underlining the factors driving the intention to adopt online shopping (Venkatesh & Davis, 2000). These variables collectively form the framework for comprehending and analyzing online consumer behavior in the context of online shopping.

The research problem revolves around understanding the key factors that influence consumers' behavior towards adopting online shopping. With the ever-increasing usage of social media platforms, it is also crucial to explore the role of social media engagement in shaping consumers' attitudes and behavior toward online shopping. This research aims to fill the gap in the literature by investigating the relationship between social media engagement and online shopping behavior while considering various demographic variables that may affect consumers' attitudes and intentions toward online shopping. Based on the previous discussion, we can build this research hypothesizes as follows:

H1: Social media engagement has a positive effect on social cognition.

Social media provides platforms for individuals to observe and interpret the thoughts, emotions, and behaviors of others, which in turn can enhance their social cognitive abilities. The proposed hypothesis implies that social media can have a positive impact on individuals' social cognition, which can potentially lead to better social interactions and relationships. Previous research has shown that social media engagement can have a significant impact on social cognition. For example, studies have found that individuals who engage more frequently in social media activities have better social skills and are more capable of accurately interpreting social cues and emotions (Verduyn et al., 2015; Hampton et al., 2016). Moreover, research has suggested that social media use can increase empathy and emotional intelligence, which are key components of social cognition (Grieve et al., 2013; Liu et al., 2018). Furthermore, research has indicated that social media provides individuals with the opportunity to observe and learn from the behaviors and attitudes of others, which can enhance their social cognitive abilities (Utz et al., 2011; Toma &Hancock, 2013). For instance, individuals can observe how others communicate, express emotions, and interact with each other on social media, which can facilitate the development of their social cognition skills.

H2: Social cognition has a positive effect on Awareness of online shopping.

Previous research has suggested that social cognition can impact individuals' awareness of new products and services (Liao & Cheng, 2017). Social cognition enables individuals to process and interpret social information, including information about new products and services, and make sense of it. As such, individuals with higher social cognition abilities are more likely to be aware of new products and services in their environment. In the context of online shopping, individuals with higher social cognition may be better able to process and interpret online information about products and services, leading to a greater awareness of online shopping options. For instance, research has shown that individuals with higher social cognitive abilities are more likely to engage in online impulse buying, which requires a higher level of awareness of online shopping options (Liao & Cheng, 2017).

H3: Awareness of online shopping has a positive effect on online business perception.

Previous research has suggested that awareness of online shopping can impact individuals' perceptions of online businesses (Chen, Fay, & Wang, 2011). Individuals who are aware of online shopping options may perceive online businesses more favorably than those who are not aware. This is because online shopping awareness may lead individuals to perceive online businesses as more modern, convenient, and accessible than traditional brick-and-mortar businesses. In addition, previous research has found that individuals who are more aware of online shopping options are more likely to engage in online shopping behaviors (Chen, Fay, & Wang, 2011).

H4: Awareness of online shopping has a positive effect on the perceived usability of online shopping.

Individuals who are more aware of online shopping options may perceive online shopping platforms as more user-friendly and easier to use, potentially leading to greater adoption of online shopping behaviors. This is because awareness of online shopping may lead individuals to seek out and use online shopping platforms more frequently, becoming more familiar and comfortable with their use. As a result, it is expected that individuals who are more aware of online shopping options will perceive online shopping platforms as more usable than those who are less aware. For instance, a study by Chiang and Dholakia (2003) found that individuals who were more aware of the benefits of online shopping were more likely to perceive online shopping platforms as easy to use and efficient. Similarly, a study by Wu and Chen (2017) found that individuals who were more aware of the availability and benefits of online shopping were more likely to perceive online shopping platforms as user-friendly and convenient.

H5: Perceived usability of online shopping has a positive effect on perceived price value of online shopping.

Perceived price value refers to the subjective assessment of the benefits and costs of online shopping in relation to its price. This is because individuals who perceive online shopping platforms as easy to use and efficient may feel that they are getting more benefits for the same price compared to traditional shopping methods. As a result, it is expected that individuals who perceive online shopping platforms as more usable will also perceive online shopping as providing greater price value than those who perceive them as less usable. Previous research has found evidence supporting the proposed hypothesis that perceived usability of online shopping is related to perceived price value. For instance, a study by Lee and Jun (2018) found that perceived usability of online shopping platforms positively influenced consumers' perceived value of online shopping. Similarly, a study by Chen and Barnes (2007) found that the perceived ease of use of online shopping platforms positively influenced consumers' perceptions of price fairness.

H6: Online business perception has a positive effect on perceived price value of online shopping.

Individuals who have positive perceptions of online shopping platforms may feel more confident in their ability to find high-quality products at fair prices. As a result, it is expected that individuals who have more positive perceptions of online shopping platforms will also perceive online shopping as providing greater price value than those who have fewer positive perceptions. Previous research has identified several web-specific aspects of online business perception, including navigation, screen clarity, content relevance, link relevance, website characteristics, and retailer image and reputation (Park, Han & Kaid, 2012). Kim and Lennon (2008) found that a retailer's image and reputation can help alleviate client anxiety by minimizing transaction risks and improving virtual interactions, which can lead to more positive perceptions of online shopping platforms and ultimately, higher perceived price value.

H7: Perceived price value of online shopping has a positive effect on online shopping adoption intention.

Previous research has established that perceived value is a significant predictor of purchase intention and has a strong impact on consumer behavior (Zeithaml, 1988; Sweeney & Soutar, 2001). Moreover, studies have highlighted the importance of perceived value as a key determinant of online shopping behavior (Lee & Lin, 2005; Liang & Huang, 2008). Specifically, Lee and Lin (2005) found a positive relationship between perceived value, online shopping satisfaction, and loyalty, while Liang and Huang (2008) identified perceived value as a significant predictor of online shopping behavior.In the context of online shopping adoption, the perceived price value of online shopping has been found to be a crucial factor influencing consumers' intention to adopt online shopping (Degeratu, Rangaswamy, & Wu, 2000; Liu & Arnett, 2000). Degeratu et al. (2000) reported that consumers' perceived price value of online shopping was a significant predictor of their intention to adopt online shopping, while Liu and Arnett (2000) found that perceived price value was a key factor influencing consumers' intention to adopt online shopping.

Overall, the hypotheses presented in this section provide a framework, as seem in Figure 1, for exploring the complex relationships among social media engagement, social cognition, awareness of online shopping, online business perception, perceived price value of online shopping, and online shopping adoption intention. The proposed model can help researchers and practitioners understand the factors that influence consumers' online shopping behavior and develop strategies to enhance online shopping adoption.
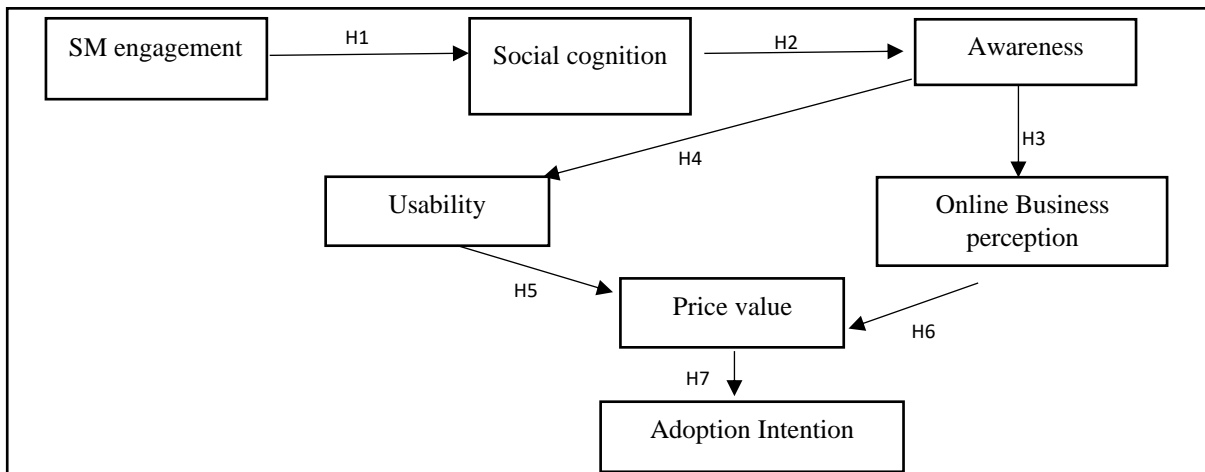
Figure 1. Research model

3. Method

To test the proposed model, a structural equation model was estimated by using Amos 25. The model tested the hypothesized causal relationships between the adoption intentions for online shopping with social media engagement, online business perception, awareness of online shopping, social cognition, usability of online shopping, and price value. whereas those variables were viewed as endogenous variables.

The ethical approval was given by the Ethics Committee of the Istanbul Aydin University Institute of Graduate Studies, as per their decision made on August 4, 2022, with reference number 2022/13. An online survey was employed within a quantitative research framework. The target population was comprised of social media network users in Yemen, estimated at approximately 3.5 million individuals according to Napoleoncat (2022).

To determine the minimum sample size necessary for Structural Equation Modeling (SEM), we employed Soper's online software (Soper, 2023). Our calculations were based on specific parameters: a desired statistical power of 0.99, signifying a high likelihood of detecting true effects (Westland, 2010); a significance level of 0.01; a moderate effect size of 0.3 (Westland, 2010); and a complex SEM model with 7 latent variables and 41 observed variables. This approach ensures the sample size is adequate to yield reliable results for the intricate SEM model, meeting rigorous standards of statistical power and significance level.

According to the calculations, the minimum required sample size for the specified SEM model is approximately 381 participants. It's worth noting that 395 participants were collected for this analysis, surpassing the minimum requirement. This surplus in sample size provides a robust foundation for conducting the SEM analysis, enhancing the reliability and accuracy of the results.

Data collection was carried out through an online Google Forms questionnaire distributed in Yemen between August and October 2022 and the collected data exhibited a mean of 215.87, a variance of 1577.512, a standard deviation of 39.718, an inter-item covariance of 0.393, and an inter-item correlation of 0.274. To assess the normality of the data distribution, normality tests were conducted, primarily through skewness and kurtosis tests, given the substantial sample size exceeding 300. According to Hair et al. (2010), data can be considered normally distributed if the absolute values of skewness and kurtosis fall within the range of -2.58 to +2.58 at a 0.01 significance level, or between -1.96 and +1.96 at a 0.05 significance level. The results of these tests demonstrated that all items exhibited a normal distribution, supporting the null hypothesis that the data originates from a normally distributed population.

Cronbach's alpha, a commonly utilized metric for evaluating the internal consistency of a scale, was employed in this study. Typically, a Cronbach's alpha value exceeding 0.7 is considered acceptable. As indicated in Table 1 below, all the factors demonstrated robust Cronbach's alpha values, confirming their reliability (Pallant, 2016). These results affirm that the items within each scale consistently measure the intended constructs, enhancing confidence in the study's findings regarding the three scales of social media engagement, online consumer behavior, and technology acceptance and usage.

Based on Napoleoncat's 2022 statistics, Yemen had a total of 3,648,400 Facebook users in September 2022, constituting 11.4% of the country's population. Among these users, 84.5% were male. The largest portion of users, 36.4%, fell within the 18-24 age bracket, while 35.7% were aged between 25 and 34.

The research sample as seen in Table 2 below, however, comprised 395 respondents with a gender distribution of 80.3% male and 19.7% female. In terms of age, 42% were between 18-24 years old. Educational attainment showed that 65.6% held bachelor's degrees. Employment-wise, 35.4% were in the private sector, 20.3% were freelancers, and 20% were students. About 32.7% reported a monthly income below $200. Geographically, 37.2% resided in Taiz, while 29.1% lived in Sanaa. Regarding technology usage, 93.7% used mobile devices, 40% relied on home ADSL connections,

and 37.7% used mobile network connections, 53.4% already traveled outside Yemen, and 61% already tried online shopping at least one time before.

Table 1. Reliability analysis

Scale	Variable	Cronbach's Alpha	N of Items
Social Media Engagement scale	scale	.847	9
	Awareness	.780	6
Online consumer behavior scale	Social cognition	.863	5
	Online Business perception	.901	9
Extended scale from the unified theory of acceptance and use of tech.	Price Value	.873	3
	Usability	.848	6
	Adoption intention	.902	3

Table 2. Frequency analysis

Demographic Characteristics	Group	Frequency	Percentage %
Gender	Female	78	19.7%
	Male	317	80.3%
Age	Below 18	5	1.3%
	18 - 25	96	24.3%
	26 - 33	166	42.0%
	34 - 41	77	19.5%
	42 - 59	51	12.7%
	Above 59	1	0.3%
Education	Below High School	3	0.8%
	High School	44	11.1%
	Associate degree	26	6.6%
	Bachelor's degree	259	65.6%
	Master's degree and above	52	13.2%
Current work status	No	164	41.5%
	Yes	231	58.5%
Occupation	Student	79	20.0%
	Government employee	41	10.4%
	Private sector employee	140	35.4%
	Trader or investor	14	3.5%
	Freelancer or Self-employment	80	20.3%
	Unemployed	29	7.3%
	Others	12	3.0%
Income	below 200$	129	32.7%
	200 - 300$	90	22.8%
	301- 400 $	31	7.8%
	401 - 500$	29	7.3%
	501 - 600$	33	8.4%
	Above 600$	83	21.0%
City of residence	Sanaa	115	29.1%
	Aden	19	4.8%
	Taiz	147	37.2%
	Hadhramaut	6	1.5%
	Al Hudaydah	8	2.0%
	Ibb	23	5.8%
	Marib	7	1.8%
	Other	70	17.7%

Demographic Characteristics	Group	Frequency	Percentage %
Type of Internet	Home ADSL	158	40.0%
	3G,4G	149	37.7%
	Internet cafes	2	0.5%
	Internet Networks	67	17.0%
	Work Internet	19	4.8%
Main Internet exploring	Mobile	370	93.7%
	Tablet	2	0.5%
	Laptop	17	4.3%
	Desktop	6	1.5%
Previous travel abroad	No	184	46.6%
	Yes	211	53.4%
Previous online shopping	No	154	39.0%
	Yes	241	61.0%

4. Result and Discussion

4.1. Analysis of research variables relationships

Table 3 below shows the Pearson correlation coefficients between various pairs of variables. Each cell in the table shows the correlation coefficient and the associated p-value for a specific pair of variables.

Table 3. Correlations

		SME	OBP	AW	SC	US	PV	AI
SME	Pearson Correlation	1	.148**	.167**	.282**	.133**	.205**	.135**
	Sig. (2-tailed)		.003	<.001	<.001	.008	<.001	.007
OBP	Pearson Correlation	.148**	1	.736**	.622**	.759**	.669**	.807**
	Sig. (2-tailed)	.003		<.001	<.001	<.001	<.001	<.001
AW	Pearson Correlation	.167**	.736**	1	.711**	.860**	.692**	.756**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001	<.001
SC	Pearson Correlation	.282**	.622**	.711**	1	.640**	.699**	.678**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	<.001
US	Pearson Correlation	.133**	.759**	.860**	.640**	1	.735**	.753**
	Sig. (2-tailed)	.008	<.001	<.001	<.001		<.001	<.001
PV	Pearson Correlation	.205**	.669**	.692**	.699**	.735**	1	.738**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001		<.001
AI	Pearson Correlation	.135**	.807**	.756**	.678**	.753**	.738**	1
	Sig. (2-tailed)	.007	<.001	<.001	<.001	<.001	<.001	

**. Correlation is significant at the 0.01 level (2-tailed).

The correlations between the variables and adoption intentions (AI) are all positive and significant at the 0.01 level (2-tailed), indicating that these variables are positively related to adoption intentions. Specifically, online business perception (OBP) has the strongest correlation with AI (r = .807), followed by awareness of online shopping (AW) (r = .756) and usability of online shopping (US) (r = .753), perceived price value (PV) (r = .738). while social media engagement (SME) has the lowest correlation with adoption intentions (AI) (r = .135).

The correlations between the other variables are also significant and provide insights into their relationships with each other. For example, awareness of online shopping (AW) has the highest correlation with usability of online shopping (US) (r = .860) This suggests that individuals who are more aware of online shopping tend to find it more usable. Furthermore, there is a strong positive correlation between online business perception (OBP) and usability of online shopping (US) (r = .759, p < .01). This indicates that individuals who perceive online businesses more positively tend to find online shopping more usable. There is also a strong positive correlation between social cognition (SC) and awareness of online shopping (AW) (r = .711, p < .01).

This suggests that individuals who have higher levels of social cognition tend to be more aware of online shopping. Lastly, there is a moderate positive correlation between social cognition (SC) and usability of online shopping (US) (r = .640, p < .01). On the other hand, there is a weak positive correlation between social media engagement (SME) and all the other variables except for online business perception (OBP), with the strongest correlation being with social cognition (SC) (r = .282, p < .01).

4.2. Structural Equation Modeling

The SEM path diagram contains a total of 96 variables in the SEM model, with 41 observed endogenous variables, 7 unobserved endogenous variables (latent variables), and 48 unobserved exogenous variables (error term). The model fit analysis produced the following results: chi-square statistics CMIN/DF = 1.963, comparative fit index (CFI) = 0.912, Tucker-Lewis index (TLI) = 0.906, Bollen's incremental fit index (IFI) = 0.913, and root mean square error of approximation (RMSEA) = 0.049.

These results indicate that the proposed model has an acceptable fit to the data, as the CFI, TLI, and IFI values are above the recommended threshold of 0.9 and the RMSEA value is below the recommended threshold of 0.08. Chi-square value also is significant, which suggests that there is still some degree of discrepancy between the model and the observed data. Overall, these findings provide support for the proposed model and suggest that it may be a useful framework for understanding online shopping behavior.

The results present standardized regression weights, revealing the relationships between latent variables (SME, AW, SC, US, OBP, PV, and AI) and their corresponding observed variables. These weights provide crucial insights into the data's structural framework. For instance, within the SME construct (SME1-SME9), regression weights ranged from 0.916 to 1.385, with SME9 having the highest weight of 1.346. In the AW construct (AW1-AW6), weights varied from 0.524 to 1.021, with AW6 showing the highest weight of 1.021. SC (SC1-SC5) exhibited weights between 0.987 and 1.100, with SC2 having the highest weight of 1.100. The US construct (US1-US6) displayed weights from 1.134 to 1.274, with US6 as the highest at 1.274. OBP (OBP1-OBP9) had weights between 0.940 and 1.178, with OBP4 at 1.178. PV (PV1-PV3) ranged from 0.906 to 0.935, with PV3 at 1.000. Finally, AI (AI1-AI3) showed weights from 0.924 to 1.000, with AI3 at 1.000. These results indicate that the observed variables effectively measure their corresponding latent constructs, offering valuable insights into the study's underlying structure, albeit with varying strengths in the relationships between observed and latent variables.

Table 4 shows the unstandardized regression weights for the SEM model. According to the results, social cognition (SC) is positively related to social media engagement (SME), with a regression weight of .369 (S.E. = .081, C.R. = 4.567, p < .001). Awareness (AW) is positively related to social cognition (SC), with a regression weight of .702 (S.E. = .072, C.R. = 9.792, p < .001). Usability (US) is positively related to awareness (AW), with a regression weight of .790 (S.E. = .069, C.R. = 11.377, p < .001). Online business perception (OBP) is positively related to awareness (AW), with a regression weight of .585 (S.E. = .053, C.R. = 10.962, p < .001). Price value (PV) is positively related to OBP, with a regression weight of .709 (S.E. = .084, C.R. = 8.452, p < .001), and to US, with a regression weight of .392 (S.E. = .082, C.R. = 4.805, p < .001). Finally, adoption intentions (AI) are positively related to PV, with a regression weight of .952 (S.E. = .068, C.R. = 14.096, p < .001).

Based on the critical ratio (C.R.) values presented in the table, all of the effects are considered statistically significant at a p-value of less than 0.001. The strength of the effects can be evaluated based on the magnitude of the regression weights. In this case, the highest regression weight is for AI <--- PV (0.952), which suggests a very strong relationship between these two variables. The other effects have regression weights ranging from 0.369 to 0.790, indicating moderate to strong relationships.

Table 4. Unstandardized regression weights

			Estimate	S.E.	C.R.
SC.	<---	SME.	.369	.081	4.567
AW.	<---	SC.	.702	.072	9.792
US.	<---	AW.	.790	.069	11.377
OBP.	<---	AW.	.585	.053	10.962
PV.	<---	OBP.	.709	.084	8.452
PV.	<---	US.	.392	.082	4.805
AI.	<---	PV.	.952	.068	14.096

It is noteworthy that to accurately determine the size of each variable's effect, it is essential to standardize the regression coefficients. Standardization of regression coefficients allows for the comparison of the effects of variables measured on different scales by converting them into a common metric, making them comparable in magnitude. (Levine, 2014).

Standardized regression weights obtained from a structural equation model (SEM) analysis with seven latent variables (SME, AW, SC, US, OBP, PV, and AI) and their corresponding observed variables. In this case, we can see that

SC has a standardized regression weight of .290 with SME, which means that SC has a moderate positive effect on SME. Similarly, AW has a larger standardized regression weight of .667 with SC, indicating a strong positive effect of SC on AW.

Furthermore, US has a higher standardized regression weight of 1.028 with AW, indicating a strong positive effect of AW on US. OBP has a slightly lower standardized regression weight of .721 with AW, indicating a moderate positive effect of AW on OBP. Moreover, we can observe that PV has a moderate positive effect on OBP with a standardized regression weight of .593, and a smaller positive effect on US with a standardized regression weight of .311. Finally, AI has the highest standardized regression weight of .746 with PV, indicating a strong positive effect of PV on AI.

Moreover, including covariances between errors in an SEM model allows for a more accurate representation of the relationships between the observed variables and their corresponding latent variables. By modeling the covariances between errors, we are accounting for the shared variance between observed variables that cannot be explained by the latent variables in the model. Additionally, modeling covariances between errors can help identify potential sources of measurement bias or confounding variables that may not have been accounted for in the model. Furthermore, by including covariances between errors, we can improve the overall fit of the SEM model, as it allows for a more precise estimation of the relationships between the variables (Byrne, 2016).

As seen in Table 5, all the covariances have significant critical ratios (C.R. values greater than 1.96 or less than -1.96, indicating statistical significance at p < .05). The positive covariances (e28 <--> e29, e13 <--> e14, e11 <--> e12, e10 <--> e15, e2 <--> e4, and e1 <--> e3) suggest a positive relationship between the pairs of observed variables. The negative covariance (e21 <--> e26) suggests a negative relationship between the two observed variables. Overall, the covariances provide insight into the relationships between the observed variables, which can help to inform the underlying latent variables and their relationships in the SEM analysis.

Table 5. Covariances

			Estimate	S.E.	C.R.
e28	<-->	e29	.205	.046	4.448
e13	<-->	e14	.472	.073	6.485
e11	<-->	e12	.272	.053	5.148
e10	<-->	e15	.260	.051	5.091
e8	<-->	e9	.216	.063	3.448
e2	<-->	e4	.328	.072	4.583
e1	<-->	e3	.316	.073	4.358
e21	<-->	e26	-.192	.043	-4.431

4.3. Mediation Analysis for Indirect Effects

Table 6 below shows the Standardized Indirect effects table displays the indirect effects of a predictor variable on other variables in the model through the mediating effects of other variables. The values in the cells are standardized coefficients, which represent the magnitude and direction of the effect.

Table 6. Standardized indirect effects

	SME.	SC.	AW.	OBP.	US.
SC.	.000	.000	.000	.000	.000
AW.	.194	.000	.000	.000	.000
OBP.	.140	.481	.000	.000	.000
US.	.199	.686	.000	.000	.000
PV.	.145	.499	.748	.000	.000
AI.	.108	.372	.558	.443	.232

The SEM analysis revealed a number of significant indirect effects of the latent variables in the model. These indirect effects reflect the influence of one variable on another variable, mediated by other variables in the model. Firstly, the results indicate that social media engagement (SME) has a significant indirect effect on awareness (AW), online business perception (OBP), usability (US), price value (PV), and adoption intentions (AI) through the mediating effects of other variables in the model. Specifically, the indirect effects of SME on AW, OBP, US, PV, and AI are .194, .140, .199, .145, and .108, respectively. These results suggest that SME indirectly affects the other latent variables in the model by influencing other variables in the model, such as social cognition (SC).

In addition to the indirect effects of SME, the SEM analysis also revealed a number of indirect effects of other latent variables on the remaining variables in the model. For example, social cognition (SC) has a significant indirect

effect on OBP, US, PV, and AI, through the mediating effects of other variables in the model. Specifically, the indirect effects of SC on OBP, US, PV, and AI are .481, .686, .499, and .372, respectively. These results suggest that social cognition indirectly affects these variables by influencing other variables in the model.

Similarly, awareness (AW) has a significant indirect effect on price value (PV) and adoption intentions (AI), through the mediating effects of other variables in the model. Specifically, the indirect effects of AW on PV and AI are .748 and .558, respectively. Online business perception (OBP) also has a significant indirect effect on adoption intentions (AI), with an indirect effect of .443. Lastly, usability (US) has a significant indirect effect on adoption intentions (AI), with an indirect effect of .232.

4.4. Moderator Effects of Previous Online Shopping Trial

To analyze the moderator effect of trial on the SEM, a comparison was conducted between two groups: one group of participants who reported having previous experience with online shopping and another group of participants who did not have such experience, and another comparison between participants who reported having previous experience of traveling abroad and another group of participants who did not have such experience.

There were 211 participants who reported having previously traveled abroad, while 184 participants reported no such experience. Additionally, 241 participants reported having engaged in online shopping before, while 154 participants had not.

Comparing the results of the standardized total effects for social media engagement between the two groups (not tried vs. yes tried), we can observe that the magnitudes of the effects are generally smaller for the group with a previous trail of online shopping. Specifically, the standardized total effects for SC, AW, OBP, US, PV, and AI are all smaller for the yes-tailed group compared to the not-tailed group in Table 7 and Table 8.

Table 7. Standardized total effects (group no - default model)

	SME.	SC.	AW.	OBP.	US.	PV.	AI.
SC.	.337	.000	.000	.000	.000	.000	.000
AW.	.235	.697	.000	.000	.000	.000	.000
OBP.	.162	.479	.687	.000	.000	.000	.000
US.	.243	.721	1.035	.000	.000	.000	.000
PV.	.181	.537	.770	.571	.365	.000	.000
AI.	.136	.402	.578	.428	.274	.750	.000

Table 8. Standardized total effects (group yes - default model)

	SME.	SC.	AW.	OBP.	US.	PV.	AI.
SC.	.288	.000	.000	.000	.000	.000	.000
AW.	.181	.626	.000	.000	.000	.000	.000
OBP.	.132	.459	.732	.000	.000	.000	.000
US.	.185	.642	1.025	.000	.000	.000	.000
PV.	.123	.427	.681	.625	.218	.000	.000
AI.	.087	.301	.480	.440	.153	.704	.000

The results showed that the previous trail of online shopping may have a moderating effect on the relationships between social media engagement and the dependent variables (SC, AW, OBP, US, PV, and AI). In other words, the impact of social media engagement on these variables may be weaker for individuals who have previously tried online shopping compared to those who have not.

Based on the standardized total effects for social cognition, we can observe that the group with a trail of online shopping has slightly weaker effects for most predictors on US and AI compared to the group without a trail. Specifically, we can see that the standardized total effects for AW, OBP, US, PV, and AI are lower for the group with a online shopping trail than for the group without a trail.

This suggests that the trail of online shopping may moderate the relationship between these factors and social cognition. However, it is important to note that the effects of the predictors are still relatively strong in both groups, indicating that the trail of online shopping may not have a significant impact on the overall relationship between the factors and social cognition, although the overall effects of social cognition relatively strong in both groups.

Also, based on the standardized total effects of Awareness on online business perception, it appears that the relationship between Awareness and the four predictors (OBP, US, PV, AI) is generally stronger for the group without a trail of online shopping compared to the group with a trail. On the other hand, the effect of Awareness on OBP appears to be slightly stronger for the group with a trail of online shopping.

These results suggest that the trail of online shopping may moderate the relationship between Awareness and some predictors of online behavior, such as usability, price value, and adoption intention. We can also observe that for

the group with a trail of online shopping, the effect of online business perception (OBP) on price value (PV) and adoption intention (AI) appears to be slightly stronger compared to the group without a trail. Specifically, the standardized total effect of OBP on PV and AI is higher for the group with a trail of online shopping (PV: 0.625, AI: 0.440) compared to the group without (PV: 0.571, AI: 0.428).

Similarly, for usability (US), the standardized total effect on PV and AI appears to be weaker for the group with a trail of online shopping compared to the group without. The standardized total effect of US on PV and AI is lower for the group with a trail of online shopping (PV: 0.218, AI: 0.153) compared to the group without (PV: 0.365, AI: 0.274). Additionally, for price value (PV), the standardized total effect on adoption intention (AI) appears to be slightly weaker for the group with a trail of online shopping compared to the group without. The standardized total effect of PV on AI is lower for the group with a trail of online shopping (0.704) compared to the group without (0.750).

These results suggest that the trail of online shopping may have a moderating effect on the relationships between online business perception, usability, price value, and adoption intention. Specifically, the effect of online business perception on price value and adoption intention appears to be stronger for the group with a trail of online shopping, while the effect of usability on price value and adoption intention appears to be weaker. Additionally, the effect of price value on adoption intention appears to be slightly weaker for the group with a trail of online shopping. However, more research is needed to confirm these findings and to understand the underlying reasons for these effects.

4.5. Findings Summary

The research focused on understanding the factors influencing consumers' online shopping behavior, with a particular emphasis on the role of social media engagement and its impact on key variables such as awareness, social cognition, online business perception, price value, usability, and adoption intention. A survey with Likert-scale items and demographic questions collected data from 395 social media users.

The correlation analysis results highlight that OBP has the strongest relationship with AI, suggesting that a positive perception of online businesses correlates with the intention to adopt online shopping. This may be because those with a favorable view of online businesses trust technology more and are more receptive to adopting new technologies like online shopping. Additionally, the positive correlation between AW, US, PV, and AI implies that individuals aware of online shopping, finding it easy to use, and perceiving good value are more likely to adopt it, likely due to their positive prior experiences with online shopping. Conversely, the weaker correlation between SME and AI suggests that while social media is important for marketing online shopping benefits, its influence may be overshadowed by other factors like OBP, awareness, usability, and perceived price value.

The SEM model illuminated the relationships between variables. Findings revealed several significant associations. Social cognition (SC) positively affected social media engagement (SME), implying that individuals with higher social cognition engage more in online shopping-related social media activity. Awareness (AW) was positively linked to social cognition (SC), indicating that those with higher social cognition are more aware of online shopping, which, in turn, positively influences usability (US). Online business perception (OBP) was positively related to awareness (AW), suggesting that greater awareness of online shopping leads to a more positive perception of online businesses. Perceived price value (PV) positively impacted both OBP and US, signifying that perceiving online shopping as a good value positively affects perceptions of online businesses and usability. Crucially, adoption intentions (AI) were strongly influenced by perceived price value (PV), indicating that those seeing online shopping as a good value are more inclined to adopt it.

The analysis revealed indirect effects. SME indirectly affected AW, OBP, US, PV, and AI through mediating variables. Social cognition indirectly impacted OBP, US, PV, and AI. Awareness indirectly influenced PV and AI, and OBP indirectly affected AI. US also indirectly impacted AI. The study examined the moderating effect of prior experience (trial) on SEM model relationships, showing that the impact of OBP on price value and adoption intention is stronger for individuals with prior experience, while the effect of usability on price value and adoption intention is weaker.

The SEM results for hypotheses based on standardized regression weight summarized at the Table 9 below :

Table 9. Hypotheses test results summary

Hypotheses	Results	Decision
Ho1: There is no significant relationship between social media engagement and social cognition.	β = 0.290, p < 0.05.	Reject the null hypothesis
Ho2: There is no significant relationship between social cognition and awareness of online shopping.	β = 0.667, p < 0.01.	Reject the null hypothesis
Ho3: There is no significant relationship between awareness of online shopping and the perceived usability of online shopping	β = 1.028, p < 0.01.	Reject the null hypothesis
Ho4: There is no significant relationship between awareness of online shopping and online business perception.	β = 0.721, p < 0.01.	Reject the null hypothesis

Hypotheses	Results	Decision
Ho5: There is no significant relationship between online business perception and perceived price value of online shopping.	$\beta = 0.593$, $p < 0.01$.	Reject the null hypothesis
Ho6: There is no significant relationship between perceived usability of online shopping and perceived price value of online shopping.	$\beta = 0.311$, $p < 0.05$	Reject the null hypothesis
Ho7: There is no significant relationship between perceived price value of online shopping and online shopping adoption intention.	$\beta = 0.746$, $p < 0.01$.	Reject the null hypothesis

Those results are supported by other research as a study by Yu and Lu (2019) found that SME has a positive impact on AI in the context of social commerce, which refers to online shopping via social media platforms. Similarly, Park et al. (2017) found that OBP has a positive impact on AI in the context of traditional online shopping. In contrast, Hwang and Lee (2018) found that AW has a positive impact on AI in the context of mobile banking. Chen and Lin (2018) found that SC has a positive impact on AI in the context of online group buying. Lastly, a study by Lai and Chen (2011) found that US has a positive impact on AI in the context of mobile banking.

5. Conclusion

The present study provided valuable insights and addressed the research questions pertaining to the effectiveness of social media engagement, the relationships between online shopping behavior factors, the effect of previous trials on behavior, and the factors driving the adoption of online shopping. The study's results indicated that there is a significant positive relationship between social media engagement and various online shopping behavior factors. Higher levels of social media engagement were associated with increased awareness, improved social cognition, and greater usability, influencing consumers' perceptions of online businesses, price value, and their intention to adopt online shopping. Additionally, the study found significant and positive relationships among various online shopping behavior factors. For example, social cognition positively affected social media engagement, awareness had positive effects on social cognition and usability, and online business perception was linked to awareness. These findings highlight the interconnected nature of these factors, emphasizing the need for a holistic approach in designing online platforms and strategies.

Moreover, the study identified several important factors that drive greater adoption of online shopping, including awareness, social cognition, usability, online business perception, and price value. These factors collectively shape consumers' overall perception of the online shopping experience and their willingness to engage in online shopping. Businesses can encourage greater adoption by focusing on improving these factors, such as enhancing visibility, providing user-friendly interfaces, delivering positive online business experiences, offering competitive prices, and effectively communicating their value proposition.

These findings have implications for businesses in designing targeted marketing strategies, leveraging social media engagement, understanding the interconnectedness of behavior factors, addressing the impact of previous trials, and enhancing key factors to drive adoption. Future research can build upon these findings by exploring additional variables, employing longitudinal approaches, and conducting cross-cultural comparisons further to enrich our understanding of consumers' online shopping behavior.

The study provides valuable insights into the complex interplay of factors influencing consumers' online shopping behavior. The findings underscore the importance of social media engagement, awareness, social cognition, online business perception, usability, and price value in shaping consumers' attitudes and intentions. Marketers and businesses can utilize these insights to understand their target audience better and design effective strategies to promote online shopping adoption.

The implications for practice suggest that businesses can leverage social media engagement, enhance awareness, improve online business perception, and focus on usability and price value to drive adoption intentions in online shopping. The theoretical implications emphasize the mediating role of variables and highlight the importance of contextual factors and longitudinal research. By considering these implications, practitioners can develop effective strategies, and researchers can advance theoretical frameworks in consumer behavior and online shopping.

The recommendations for future research aim to expand our knowledge of consumers' behavior towards online shopping by considering cultural factors, employing longitudinal and qualitative research methods, conducting cross-cultural comparisons, examining trust and security concerns, investigating mobile shopping behavior, exploring emerging technologies, and studying the role of social influence. By addressing these research gaps, scholars and businesses can gain deeper insights into consumer behavior and inform effective strategies to meet online shoppers' evolving needs and preferences.

It is important to note that this study has certain limitations. The research was conducted using an online survey questionnaire, which may introduce self-reporting biases and limit the generalizability of the findings. Additionally, the

study focused on a specific sample population from a particular geographical location, which may limit the applicability of the results to broader contexts. Future research could explore these factors in different populations and consider additional variables to further enhance our understanding of consumers' behavior toward online shopping.

Acknowledgment

Author Contribution

Author 1: conceptualization, writing original draft, data curation, formal analysis, investigation, methodology. Author 2: review and editing, supervision, validation.

Financial Disclosure

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

Adnan, H. (2014). An Analysis of the Factors Affecting Online Purchasing Behavior of Pakistani Consumers. *International Journal of   Marketing   Studies, 6*(5), 133–148.

Ansari, Z. A. (2019). Measuring online consumer behavior: scale development and validation. *Journal of Business & Retail Management Research,* 13(03).

Byrne, B. M. (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming (3rd ed.).* Routledge.

Chen, L. D., & Barnes, S. J. (2007). Initial trust and online buyer behaviour. *Industrial Management & Data Systems*, 107(1), 21-36.

Chen, L. D., & Tan, J. (2004). Consumer trust in online shopping: A multidimensional view. In Proceedings of the 10th *Americas Conference on Information Systems*.

Chen, Y. C., & Lin, C. P. (2018). Factors influencing online group buying intention and behaviour: An integration of the diffusion of innovation and technology acceptance models. *International Journal of Information Management*, 39, 252-266.

Chen, Y., Fay, S., & Wang, Q. (2011). The role of marketing in social media: How online consumer reviews evolve. *Journal of Interactive Marketing*, 25(2), 85-94.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. https://doi.org/10.2307/249008

Degeratu, A. M., Rangaswamy, A., & Wu, J. (2000). Consumer choice behavior in online and traditional supermarkets: The effects of brand name, price, and other search attributes. *International Journal of Research in Marketing*, 17(1), 55-78.

Grieve, R., Indian, M., Witteveen, K., Tolan, G. A., & Marrington, J. (2013). Face-to-face or Facebook: Can social connectedness be derived online? *Computers in Human Behavior*, 29(3), 604–609.

Hampton, K. N., Rainie, L., Lu, W., Shin, I., & Purcell, K. (2016). Social media and the cost of caring. *Pew Research Center*.

Kim, M. & Lennon, S. (2008). The effects of visual and verbal information on attitudes and purchase intentions in *Internet shopping. Psychology & Marketing*, 25, 146–178.

Kotler, P., & Keller, K. L. (2016). *Marketing management.* Boston: Pearson Education.

Kotler, P., Keller, K. L., Brady, M., Goodman, M., & Hansen, T. (2019). *Marketing Management* (16th ed.). Pearson.

Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management*, 33(2), 161-176.

Lee, M. K., & Turban, E. (2001). A trust model for consumer Internet shopping. *International Journal of Electronic Commerce*, 6(1), 75-91.

Lee, S. M., & Jun, J. K. (2018). Effects of usability factors on perceived value of online shopping. *Journal of Electronic Commerce Research*, 19(2), 122-137.

Lee, Y., & Park, J. (2019). Device effects on the perceived value and usability of online shopping websites: A comparison of desktop and mobile devices. *International Journal of Industrial Ergonomics*, 72, 38-46.

Lee, Y., Kwon, O., & Sung, Y. (2017). Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. *Sustainability*, 9(8), 1342.

Liang, T. P., & Huang, J. S. (2008). An empirical study on consumer adoption of online auctions. *Electronic Commerce Research and Applications*, 7(4), 421-432.

Liang, T. P., & Huang, J. S. (2017). The effects of internet use on purchase involvement and purchase intention. *Journal of Business Research*, 70, 214-220.

Liao, C., Lu, H.-P., & Chen, R.-K. (2011). Assessing the effects of perceived enjoyment and social norms on continuance intention in online learning environments. *Computers & Education*, 56(2), 650-660.

Liao, S., & Cheng, C. C. (2017). The influence of social cognition on online impulse buying: An examination of the mediating role of emotions, trustworthiness, and website quality. *Journal of Electronic Commerce Research*, 18(1), 48-62.

Liao, Z., & Cheung, M. T. (2001). Internet-based e-shopping and consumer attitudes: An empirical study. *Information & Management*, 38(5), 299-306.

Liu, C., & Arnett, K. P. (2000). Exploring the factors associated with Web site success in the context of electronic commerce. *Information & Management*, 38(1), 23-33.

Liu, D., Baumeister, R. F., Tian, Y., & Li, H. (2018). The effect of social media use on empathy. *Social Science Computer Review*, 36(6), 714–723.

Liu, Y. (2006). Word of mouth for movies: Its dynamics and impact on box office revenue. *Journal of Marketing*, 70(3), 74-89.

Liu, Y., Li, H., & Carlsson, C. (2016). Factors driving social network site use. *Journal of Computer Information Systems*, 56(2), 121-131.

Liu, Y., Li, H., & Carlsson, C. (2016). Factors driving the adoption of mobile healthcare services: A double-edged sword of self-management and technology dependency. *Information Systems Frontiers*, 18(3), 489-502.

Liu, Y., Li, H., & Hu, F. (2014). Website attributes in urging online impulse purchase: *An empirical investigation on consumer perceptions*. Decision Support Systems, 66, 34-47.

Liu, Y., Li, H., & Hu, F. (2017). The effect of online reviews on consumers' purchasing intention in mobile commerce: An empirical study. *Computers in Human Behavior*, 75, 356-363.

Napoleoncat. (2022). Facebook users in Yemen - September 2022 | *NapoleonCat.* Retrieved October 28, 2022, from https://napoleoncat.com/stats/facebook-users-in-yemen/2022/09/

Ni, X., Shao, X., Geng, Y., Qu, R., Niu, G., & Wang, Y. (2020). Development of the Social Media Engagement Scale for Adolescents. *Frontiers in Psychology*, 11, 701.

Pallant, J. (2016). SPSS Survival Manual: A Step-by-Step Guide to Data Analysis Using SPSS Program (6th ed.). London, UK: *McGraw-Hill Education*.

Park, E., Han, J., & Kaid, L. L. (2012). Web-specific determinants of online purchase intention: comparing online purchase intention and purchase behavior. *Journal of Computer-Mediated Communication*, 18(2), 137-155.

Park, E., Kim, E. Y., & Funches, V. M. (2017). The effects of perceived risk and technology anxiety on the adoption of online shopping channels. *Journal of Retailing and Consumer Services*, 36, 11-22.

Park, J. H., & Lee, Y. K. (2009). Examination of the factors influencing consumers' adoption of online shopping. *Journal of Retailing and Consumer Services*, 16(2), 145-153.

Park, J., Kim, J., & Sung, Y. (2019). The effect of online reviews on consumer adoption intention in mobile commerce: A value-expectancy perspective. International Journal of Human–Computer *Interaction*, 35(4-5), 376-386.

Park, J., Lee, H., & Han, I. (2007). The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement. *International Journal of Electronic Commerce*, 11(4), 125-148.

Park, K., Han, S., & Kaid, L. (2012). Does social networking service usage mediate the association between smartphone usage and social capital? *New Media and Society*, 15(7), 1077-1093

Park, S., & Chen, Y. C. (2018). Investigating the determinants of online shopping intention for luxury products: A cross-cultural comparison study between Chinese and South Korean consumers. *Journal of Global Fashion Marketing*, 9(4), 303-317.

Soper, D.S. (2023). A-priori Sample Size Calculator for Structural Equation Models [Software]. Available from https://www.danielsoper.com/statcalc

Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220.

Toma, C. L., & Hancock, J. T. (2013). Self-affirmation underlies Facebook use. *Personality and Social Psychology Bulletin*, 39(3), 321–331.

Utz, S., Muscanell, N., & Khalid, C. (2011). Snapchat elicits more jealousy than Facebook: A comparison of Snapchat and Facebook use. *Cyberpsychology, Behavior, and Social Networking*, 14(8), 461–466.

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

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. https://doi.org/10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*: Management Information Systems, 36(1), 157–178.

Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology*: General, 144(2), 480–488.

Westland, J.C. (2010). Lower bounds on sample size in structural equation modeling. *Electronic Commerce Research and Applications*, 9(6), 476-487.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.

Appendix 1: Standardized SEM path diagram
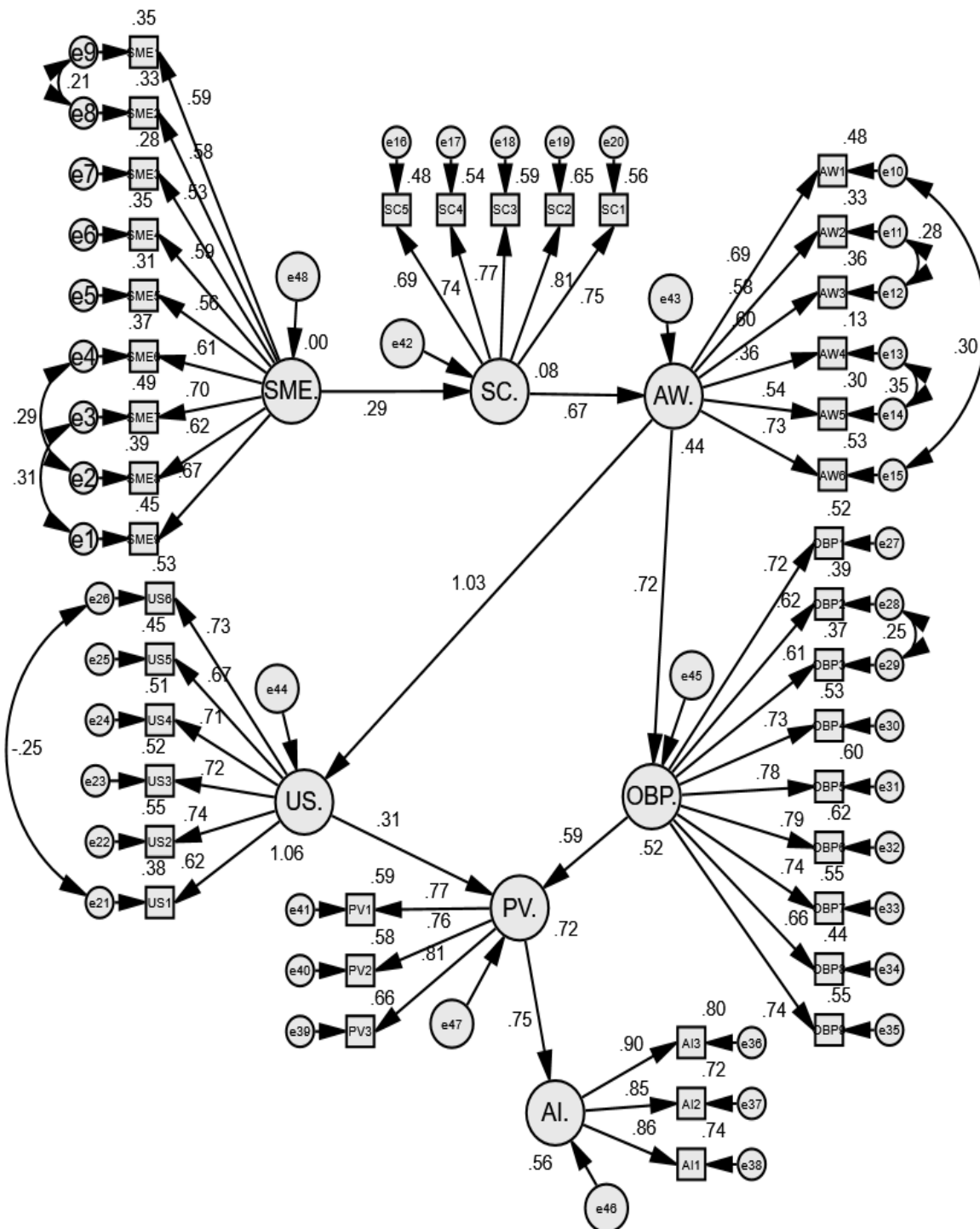
Appendix2: Final english scales

Code	Items
	Social Media Engagement
SME1	Using social media is my daily habit.
SME2	Even if it's late, I'll take a look at social media before sleep.
SME3	I often use social media to relax in habit
SME4	I get fulfilled from the attention and comments of others on social media.
SME5	Using social media, I am satisfied with the relationship between myself and my friends.
SME6	Compared to the real world, social media makes me feel more comfortable.
SME7	I feel bored when I can't use social media.
SME8	Compared to the real world, I am happier when I socialize on social media.
SME9	I feel anxious when I can't use social media
	Awareness
AW1	I am aware of online shopping
AW2	I know that I can shop world class brands from home
AW3	I know that I can shop from anywhere in the world from home
AW4	I feel my personal information is kept confidential by online shopping sites.
AW5	My financial information is safe and secure with online shopping sites.
AW6	I have sufficient knowledge of using internet shopping.
	Social cognition
SC1	I feel online shopping is more convenient.
SC2	I get motivated when my reference group prefers online shopping.
SC3	I get convinced when my friends do shopping from online sites.
SC4	I feel encouraged when my family members shop from online sites.
SC5	Online shopping suits my customs and traditions.
	Online Business perception
OBP1	Easy navigation in online websites makes it more convenient to shop
OBP2	I feel delighted with color combination (attractiveness) of the website.
OBP3	Video and 3D displays encourages online shopping.
OBP4	Clarity of the website influences my decision of purchase.
OBP5	Speed of the shopping website improves my search among varied collection of products.
OBP6	Online shopping provides a wide range of product selection.
OBP7	Good customer support/service motivates me for online shopping.
OBP8	Flexible payments systems attract me to shop online.
OBP9	Shopping sites which preserve good return policy motivate me to shop online.
	Price Value
PV1	Online shopping is reasonably priced.
PV2	Online shopping is a good value for the money
PV3	At the current price, online shopping provides a good value
	Usability
US1	Using online shopping helps me accomplish things more quickly
US2	Learning how to use online shopping is easy for me.
US3	My interaction with online shopping is clear and understandable.
US4	I find online shopping easy to use.
US5	It is easy for me to become skillful at using online shopping.
US6	I have the knowledge necessary to use online shopping
	Adoption intention
AI1	I intend to continue using online shopping in the future.
AI2	I will always try to use online shopping in my daily life
AI3	I plan to continue to use online shopping frequently

Appendix 3: Final arabic scales

م	المتغير	الفقرات
	المشاركة على وسائل التواصل الاجتماعي	استخدام وسائل التواصل الاجتماعي عادة يومية بالنسبة لي. سوف ألقي نظرة على وسائل التواصل الاجتماعي قبل النوم، حتى لو كان الوقت متأخرًا غالبًا ما أستخدم وسائل التواصل الاجتماعي للراحة والتخفيف عن نفسي. تعليقات الآخرين ومتابعتهم على وسائل التواصل الاجتماعي تشعرني بالرضا. أشعر بالرضا عن العلاقة بيني وبين أصدقائي من خلال استخدام وسائل التواصل الاجتماعي. تجعلني وسائل التواصل الاجتماعي أشعر براحة أكبر مقارنةً بالعالم الحقيقي أشعر بالملل عندما لا أستطيع استخدام وسائل التواصل الاجتماعي. أنا أكثر سعادة عندما أكون اجتماعيًا على وسائل التواصل الاجتماعي مقارنةً مع العالم الحقيقي أشعر بالقلق عندما لا أستطيع استخدام وسائل التواصل الاجتماعي.
	الإدراك	لدي دراية بوجود التسوق عبر الإنترنت أعلم أنه يمكنني شراء ماركات عالمية من المنزل اعرف أنه يمكنني التسوق من أي مكان في العالم من المنزل أشعر أن معلوماتي الشخصية تظل سرية عند استعمالها في مواقع التسوق عبر الإنترنت. معلوماتي المالية آمنة ومحمية في مواقع التسوق عبر الإنترنت. لدي معرفة كافية بكيفية التسوق عبر الإنترنت.
	الوعي الاجتماعي	أشعر أن التسوق عبر الإنترنت ملائم أكثر لكل ظروف التسوق اتحفز للتسوق عبر الانترنت عندما يقوم زملائي بذلك اقتنع أكثر عندما يستخدم أصدقائي مواقع التسوق عبر الإنترنت أشعر بالتشجيع عندما يتسوق أفراد عائلتي من المواقع عبر الإنترنت. التسوق عبر الإنترنت يناسب مع عاداتي وتقاليدي
	تصور الأعمال التجارية عبر الانترنت	سهولة التنقل في مواقع الويب على الإنترنت تجعل التسوق أكثر سهولة الألوان الجذابة في تصميم مواقع التسوق عبر الانترنت تشعرني بالراحة. الفيديوهات والبطاقات التوضيحية المتحركة تشجعني اثناء التسوق عبر الإنترنت. يؤثر وضوح وصف المنتجات في مواقع التسوق عبر الانترنت على قراري بالشراء. سرعة موقع التسوق عبر الانترنت تساعد على تسهيل البحث بين منتجاته المتنوعة. يوفر التسوق عبر الإنترنت خيارات واسعة من المنتجات المناسبة. يحفزني توفر خدمة / دعم العملاء الجيد على التسوق عبر الإنترنت تجذبني أنظمة الدفع المالي المرنة للتسوق عبر الإنترنت. تحفزني المواقع التي تقدم نظام إعادة وارجاع للمنتجات على التسوق عبر الإنترنت.
	القيمة السعرية	منتجات التسوق عبر الإنترنت اسعارها معقوله. يعد التسوق عبر الإنترنت ذا قيمة مناسبة مقابل المال الذي يدفع له بالأسعار الحالية، يوفر التسوق عبر الإنترنت قيمة جيدة
	سهولة الاستخدام	يساعدني استخدام التسوق عبر الإنترنت في إنجاز الأشياء بسرعة أكبر استعمال مواقع التسوق عبر الإنترنت سهل بالنسبة لي التسوق عبر الانترنت واضح ومفهوم التسوق عبر الإنترنت سهل الاستخدام من السهل بالنسبة لي أن أصبح ماهرًا في استخدام التسوق عبر الإنترنت. من السهل الحصول على المعرفة اللازمة للتسوق عبر الإنترنت
	الرغبة في الاستخدام	في المستقبل أنوي الاستمرار في استخدام التسوق عبر الإنترنت سأحاول دائمًا استخدام التسوق عبر الإنترنت في حياتي اليومية. أخطط لمواصلة استخدام التسوق عبر الإنترنت بشكل متكرر.