The Impact of Social Influence on the Online Behavior of Moroccan Consumers

Abderrazak Hormi[1] (PhD Student); Bouchra Ouarraoui[1,3] (Teacher-Researcher); Naoual Benaini[1] (Teacher-Researcher)
[1]Faculty of Legal, Economic and Social Sciences Mohammed First University, Oujda, Morocco
[2]Social Solidarity Economy and Local Development Laboratory (ESSDL), Faculty of Legal, Economic and Social Sciences Mohammed First University, Oujda, Morocco,
[3]Social Solidarity Economy and Local Development Laboratory (ESSDL), Faculty of Legal, Economic and Social Sciences Mohammed First University, Oujda, Morocco,

Abstract:- This study aims primarily to develop a model based on structural equation modeling to explain the impact of social influence on online shopping behavior in Morocco.

Referring to the literature review we generated four research hypotheses explaining the effect of social influence on online shopping behavior and we introduced in addition to social influence and online shopping, an intermediate variable which is the purchase intention and a moderating variable which is the user experience.

Secondly, this model is tested by the interim of an online survey of a sample size of 211 Moroccan respondents.

The result of this study manages to explain more than 77.3% of the variation of the online purchase variable, and the application of the model on another random sample would allow to explain about 72.10% of the information on online purchase.

The study proposes to the marketing manager's elements to take into consideration for the elaboration of a strategy adapted to the context of the e-commerce market in order to provide an ethical response to the needs of the Moroccan consumer.

Keywords:- Online Shopping, Social Influence, user Experience, Purchases Intention, Structural Equation Modelling.

I. INTRODUCTION

Studying consumers' online shopping behavior has been one of the most important research topics in e-commerce over the past decade, online consumer behavior research has been conducted across multiple disciplines, including system information, and marketing.

In the online shopping process, when potential consumers recognize a need for certain goods or services, they will search for information relating to the needs then they will evaluate the alternatives to ultimately choose those that best match their criteria, however sometimes they are attracted by incentives on related products or services.

Consumer behavior is generally influenced by two types of internal and external factors and several authors agree on the fact that the influence of the social factor represents an essential element in the decision-making process.

Thus the present research has for field of study the online behavior of the Moroccan consumer by focusing on the social factor, knowing that in Morocco and according to the interbank electronic banking center the e-commerce sites affiliated with the CMI have made 14.9 million online payment transactions for a total amount of 5.7 billion DH during the period of the first 9 months of 2021.

Therefore, the main research question of this study is: "To what extent does social influence has an impact on online shopping in Morocco?" »

➢ *To Answer Our Central Question, we asked Ourselves the Following Research Questions:*

- How does social influence impact online shopping?
- Under what conditions does social influence have an impact on online purchasing?

According to (Fishbein & Ajzen, 1977) in their behavioral prediction model called "reasoned action model", social influence as a direct determinant of behavioral intention is represented by the subjective norm, indeed for this model the subjective norm is under social pressure exerted on the individual encouraging him to have a behavioral intention.

According to (Ajzen, 1991) social influence is presented as the social pressure exerted by family and friends on the behavioral intention that subsequently stimulates the performance of a given behavior.

And for (Venkatesh, Morris, Davis, & Davis, 2003) The user experience provides an instrumental rather than a social knowledge base, which over time leads to a reduction in social pressure.

➢ *Based on our Theoretical Framework, we were able to Extract the Following Hypotheses:*

- H1: Social influence has a positive effect on online purchase intention in Morocco
- H2: Purchase intention will have a positive influence on the use of online purchases in Morocco
- H3: Social influence will be moderated by user experience in Morocco.

In order to succeed in the empirical study of our research hypotheses, we constructed a sample size of 211 individuals. The method of choosing the elements of our sample is the "judgmental sampling" method of choice. And we consider it important to include in our sample Moroccan consumers who use the internet frequently.

II. THEORETICAL FOUNDATIONS

➢ *Definition of Social Influence*

Social influence significantly affects consumer behavior through various mechanisms such as reference groups, social norms, social media, and brand communities.

The notion of the reference group was presented by C. Whan Park and V. Parker Lessig in 1977. According to this source, a reference group is defined as an individual or group, real or imaginary, conceived to have a significant influence on the evaluations, aspirations, or behavior of an individual. According to this definition, the reference group can correspond to a real group such as family members or an abstract group, for example, a group of singles. A reference group is one to which one always refers to evaluate achievements, aspirations, and ambitions. It is the reference group, according to its values, that judges individual behaviors, and surely the groups of belonging (groups to which one belongs) represent reference groups.

Cialdini's exploration of consumer behavior emphasizes how people are influenced by various social norms and principles. Normative influence, one of the key aspects of social influence, refers to the tendency of individuals to conform to the expectations and norms of their social group to be liked and accepted. This form of influence is closely related to Cialdini's principles of social validation and liking (Cialdini, 2009).

Social stratification has a significant influence on consumption behaviors, which is clearly evident through lifestyles, values, and symbols associated with each social class. The concept of social class has been developed to explain the evolution of societies and is often approached in the context of consumption. Social classes imply a hierarchy, but this stratification shouldn't always be perceived as a phenomenon where the boundaries between classes are clear-cut.

Social classes can be seen as market segments, but it's important to determine whether these segments actually group individuals with homogeneous attitudes and behaviors. Consumption symbols associated with each social class can be used to affirm or reject belonging to it, thus reinforcing individuals' social identity.

Belonging to a social class influences attitudes, opinions, and consumption behaviors, simultaneously reinforcing belonging to that social class (Astous, 2018).

➢ *Social Influence and Online Shopping*

The theory of reasoned action implemented by (Fishbein and Ajzen, 1977) considers that at the base of any behavior, there is an intention, that is to say a conscious decision of a certain action.

The two determinant variables of behavioral intention are attitude and subjective norm.

According to this model, the attitude towards the behavior is determined by people's belief in the consequences of this behavior and the evaluation of these consequences.

So according to this model, social influence is represented by the subjective norm that impacts a given behavior through behavioral intention.

The theory of intended behavior is an improvement of the theory of reasoned behavior proposed in 1991 by Icek Ajzen.

In this model, social influence is presented in the form of social pressure exerted by family and friends on behavioral intention, which represents a mediating variable for the achievement of a given behavior.

➢ *Online Purchase Intention*

Purchase intentions can be used to test the implementation of a new distribution channel to help managers determine whether the concept merits further development and to decide which geographic markets and consumer segments to target by through the channel (Morwitz et al., 2007). Their importance lies in the fact that intentions are considered the key predictor of actual behavior (Montano and Kasprzyk, 2015); therefore, their study is of utmost importance for the success of any online retailer.

The intention is simply defined as the effort people are willing to make and the degree of determination they plan to use to perform a behavior.

Behavioral intention refers to a person's subjective likelihood of engaging in a certain behavior (Fishbein & Ajzen, 1975).

Fishbein and Ajzen (1975) asserted that an individual's intention directs the execution of the behavior in the same direction.

According to Ajzen (2012), behavioral intentions are motivators that reflect the effort a person is willing to put in to accomplish a task.

So for this study, purchase intention is considered as a mediating variable between social influence and online purchase.

➢ *The Online user Experience*

Davis et al in 1989 highlighted the role of user experience using cross-sectional analysis.

For Karahana et al. 1999 find that when the effect of user experience, increases the impact on social influence on destitute buying behavior.

According to Vankatech 2000 the user experience is a moderating variable of the subjective norm, and the social influence becomes less important with the increase of the user experience.

For (Taylor and Todd 1995) the norm subjective becomes less important when the user experience increases.

"Online shopping experience" has recently been considered in the marketing literature with the intersection of the domains of consumer experience, shopping experience and online experience.

The conceptualization of the online shopping experience is still ongoing, as it is neither operational, nor quantitative, nor empirical.

In our study, the user experience is a moderating variable allowing the reduction of the impact of social influence on purchase intention.

- *Based on our Theoretical Framework, we Extracted the Following Hypotheses:*

✓ H1: Social influence has a positive effect on online purchase intention in Morocco.
✓ H2: Purchase intention will have a positive influence on the use of online purchases in Morocco.
✓ H3: Social influence will be moderated by user experience in Morocco.

III. METHODOLOGICAL APPROACH

➢ *Epistemological positioning*

At the epistemological level, this research is defined at the level of the explanatory paradigm, for (Berthelot, 2001) this paradigm refers to experimental reason and makes it possible to explain the causal links between dependent and independent variables.

- Positioning at the level of the explanatory paradigm automatically frames the remaining poles
- For the theoretical pole: formalization of standard theoretical laws.
- For the morphological pole: formalization of the explanatory hypotheses which define the object of research.
- For the technical pole: the use of a questionnaire which will subsequently be processed by statistical methods.

➢ *Structural Equation Modeling*

Just a few decades ago, researchers were deterred from asking (or answering) complex research questions by statistical techniques that did not easily test multivariate models.

Structural equation modeling (SEM) is a family of statistical techniques that allows researchers to test such models.

SEM is considered a hybrid method of factor analysis and path analysis.

The goal of SEM is similar to that of factor analysis: to provide a parsimonious summary of the interrelationships between variables.

SEM is also similar to path analysis in that researchers can test hypothetical relationships between constructs.

Pearl (2012) defines SEM as a method of causal inference having two inputs and generating three outputs.

- *Input:*

✓ Assumptions based on theoretical foundations or empirical studies.
✓ A set of questions about the magnitude of the direct effect of variable x on variable y.

- *Output*

✓ The numerical estimates of the model parameters.
✓ A set of logical implications of the model which may not correspond directly to a specific parameter but which can be tested on the data.
✓ The degree to which the testable implications of the model are supported by the data.

➢ *Sample Size and Questionnaire*

Although determining the minimum sample size in SEM is more problematic, various rules have been suggested in the SEM literature.

Nunnally, (1967) mentioned that the sampling error is a function of all the variables used in the regression analysis.

Ding et al. (1995) recommended a minimum sample size of 100 to 150 to perform SEM using the sample size estimation method.

The number of free parameters of the model also determines the size of the sample (Raykov, 2006). According to this rule, the minimum sample size must be ten times greater than the number of free parameters of the model.

If the model has 20 free parameters, the number of observations must be 200 (Bentler, 1990).

In order to succeed in the empirical study of our research hypotheses, we constructed a sample of 211 individuals. The method of choosing the elements of our sample is "judgmental sampling".

Table 1 The List of Items and their Corresponding Code

Items	Code
People who influence your buying behavior think you should buy online	IS1
People important to you think you should buy online	IS2
Your friends think you should use the internet to shop	IS3
You think your family would be supportive of you using the internet for shopping	IS4
People who buy online in your entourage (work - family) have a symbolic social status	IS5
You plan to buy via the web in the near future	ILA1
You will regularly use the Internet in the future to make purchases	ILA2
You will strongly recommend others to shop on the Internet	ILA3
You intend to use the Internet at least once to make purchases	ILA4
You will frequently make your purchases in the future on the Internet	ILA5
Buying online is a habit for you	EU1
You feel comfortable using online shopping sites	EU2
Buying online is automatic for you	EU3
You feel competent using online shopping sites	EU4
You are experienced in the use of online shopping sites	EU5
You will definitely continue to buy online	AL1
You will continue to shop online for at least the next six months	AL2
You will increase the time spent shopping online	AL3
You shop online regularly	AL4
You spend enough time shopping online	AL5

Table 1 shows the measurement items used to measure the research variables, and each item is coded for use in the SPSS AMOS software.

IV. RESULTS

➤ *Reliability and Validity Test*

According to table 2 The Cronbach's Alpha coefficient of the instruments for measuring the research variables is satisfactory, it is almost equal to 0.7 for the social influence variable and greater than 0.7 for the other variables.

The KMO index, which is above the 0.7 threshold, the correlation between the items of the variables is of very good quality.

Bartlett's sphericity test is less than 0.05 for the four variables so we can deduce the rejection of the null hypothesis which means that the item correlation matrix is an identity matrix.

Table 2 Results of the Statistical Tests of Reliability and Validity

Variable	Conditions of application of the CPA		Cronbach's Alpha
	KMO index	Bartlett's chi-square test approx. DLL (p-value)	
Social influence	0.750430	168.0142710 (0.000)	0.695
Purchase intent	0.823656	424.67953710 (0.000)	0.840
User experience	0.828153	414.844188 10 (0.000)	0.849
Online purchase	0.820129	455.17724410 (0.000)	0.853

Source: Established by us Using SPSS

➤ *Construct Validity Test*

We will in this step study the validity of the construct through the study of convergent validity and discriminant validity.

Convergent validity is checked by the Convergent Validity Rho, also called the Average Variance Extracted (AVE) ratio.

Table 3 Construct Validity Test

Latent variable	IS	IAL	EU	AL
Rho of convergent validity	0.4143	0.4909	0.5998	0.5740
R^2ij IS	1.0000	0.2777	0.3014	0.3003
R^2ij IAL	0.2777	1.0000	0.3906	0.4928
R^2ij EU	0.3014	0.3906	1.0000	05655
R^2ij AL	0.3003	0.4928	0.5655	1.0000
Convergent validity >0.5	invalid	valid	valid	valid
Discriminant validity Rho> R^2ij	valid	valid	valid	valid

Source: Established by us based on analysis of SPSS questionnaire responses

According to table 3, we were able to have convergent validity and discriminant validity for the majority of latent variables.

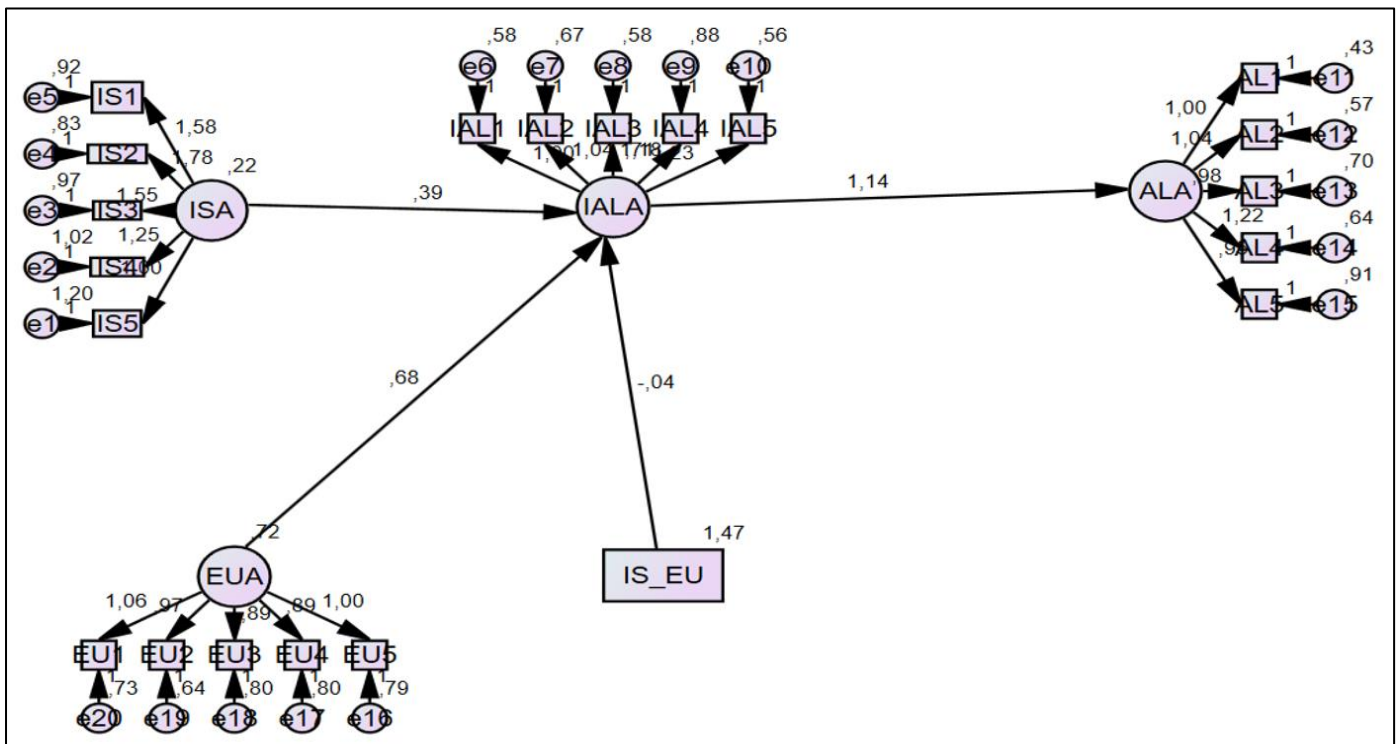➢ *Structural Equation Model Estimation*

Fig 1 Estimation of the Structural Equation model using SPSS AMOS and the Maximum Likelihood Method.

- *Figure 1 Shows the Following Relationships between the Research Variables:*

✓ Social influence (ISA) positively affects online purchase intention (IALA)
✓ Online purchase intention (IALA) positively affects online purchase (ALA)
✓ We find a negative moderation effect (IS_EU) applied by user experience on purchase intention (IALA).

The results of the Goodness of Fit Indices of the measurement models indicates that the structural model presents an acceptable adjustment in view of the results of the various indices calculated to measure the quality of the causal model, namely the indices: RMR=0.1444, GFI=0.773, AGFI=0.721, PGFI =0.629, NFI=0.729 and CFI=0.794 and RMSEA=0.103. The majority of these indices have a level deemed acceptable in relation to the standard.

According to the result of the GFI indicator, the model created manages to explain more than 77.3% of the variation of the latent variable to explain "online purchases".

According to the results of the AGFI indicator, the application of the model on another sample taken at random would make it possible to explain around 72.10% of information on "online purchases".

➢ *Estimation of the Parameters of the Causal Model*
After carrying out tests on the different research variables, we find the result of the estimation of the parameters of the causal links:

- *Positive and Significant Relationship between:*

Social influence – purchase intention (R=0.395)

Purchase intention – online purchase (R=1.144)

And we find a negative relationship between the variable user experience and online purchase intention.

- *In Summary, the Validation of the Hypotheses is as Follows:*

✓ H1: social influence has a positive effect on online purchase intention in Morocco : Hypothesis accepted
✓ H2: the purchase intention will have a positive influence on the use of online purchases in Morocco : Hypothesis accepted
✓ H3: the social influence will be moderated by the user experience in Morocco: Hypothesis accepted

V. DISCUSSIONS

➢ *Verification of the Purchase Intention-Online Purchase effect Hypothesis*

Based on the result of our empirical study, buying online is positively correlated with the intention to buy online, which is consistent with our starting hypothesis.

What explains the influence of online purchase intention on online purchase theoretically is that the different behavioral prediction models have agreed that the effect of purchase intention acts positively about buying online.

➢ *Verification of the Social Influence effect Hypothesis Purchase Intention*

Based on the results of our empirical study, social influence acts positively on purchase intention, this effect is moderated by the user experience, which is consistent with the initial hypotheses.

What explains the social influence at the level of the literature review several behavioral prediction models indicate that the relationship between social influence and purchase intention is positively correlated.

➢ *Verification of the Moderation effect Hypothesis*

At the level of the moderating effect of the user experience, theoretically we find for (Vankatech, 2000) the user experience is a moderating variable allowing the reduction of the impact of the social influence on the purchase intention.

VI. CONCLUSION

The objective of this study is to test the effect of social influence on the online behavior of connected Moroccan consumers, therefore the main research question is: "to what extent does social influence have an impact on the online shopping in Morocco? »

At the theoretical level, several consumer behavior models have been used, namely the technology acceptance models and the reasoned action model and the planned action model.

The literature review allowed us to design an analysis model integrating four variables which are: social influence, online purchase intention, online purchase, and user experience.

The empirical study of our analysis model led us to use structural equation modeling.

Based on a sample of instant cross-sectional data consisting of 211 individuals, we were able to observe that the relationship between the "Social influence" variable and the "Online purchase intention" variable is a positive and significant correlation when the variable "Social influence" increases, the variable "Intention to buy online" also increases.

And The relationship between the variable "Intention to purchase online" and the variable "Purchase online," is a positive and significant correlation when the variable "Intention to purchase online" increases, the variable "Purchase online," also increases.

And the "User experience" variable applies a moderating effect on the relationship between the "Social influence" variable and the "Online purchase intention" variable. When the "User experience" variable increases, the impact of the "Social influence" variable on the "Online purchase intention" variable decreases.

According to the result of the GFI indicator, the model created manages to explain more than 77.3% of the variation of the latent variable to explain "online purchase".

According to the results of the AGFI indicator, the application of the model on another sample taken at random would make it possible to explain around 72.10% of information on "online purchases".

This research suggests that companies make sense to consider the impact of social influence when defining marketing strategy and also conduct ongoing research to determine the user experience for people who have purchased products.

And for the realization of the forecasts, the purchase intention constitutes an important element allowing the measure of transformation of the purchase intention to an effective purchase.

Regarding the limits of the research, it should be noted that it is essentially the sample given the small size compared to the population which can generate a certain influence on the results.

As part of our research axis "Digital marketing and purchasing behavior", we plan in future scientific work to test other factors that can impact online purchasing behavior.

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