

Online Purchasing Intention: Factors and Effects

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Abstract

Consumers' direct use of Internet to purchase online still remains poor. This reluctance is a difficulty for the survival of e-commerce-based firms. It is then necessary to better attest for the reasons which push consumers to adopt or reject purchasing online. It is with these concerns that this study tries to determine the factors explaining online purchasing behaviour. The results indicate that perceived ease of use, perceived usefulness and previous experience are the factors which determine Internet use as a new business tool. This study adds to the existing literature the empirical validation of a model that integrates the effect of experience, gender and the traditional variables of the technology acceptance model on online purchasing intention. Understanding well the factors influencing online purchasing would allow firms the possibility of adjusting their strategies to finally attract most of their potential consumers and profit most from the opportunities offered by e-commerce.

Key words: E-Commerce; Attitude towards online purchasing; Online purchasing intention

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INTRODUCTION

During these last few years, information and communication technology substantially increased the possibilities of playing, communicating and making transactions, etc (Singh, 1996). Questioning about the reasons behind consumers' reluctance to opt for online purchasing has reasonably become the concern of many (Boulaire & Ballofeft, 1999; Feartherstone & Burrows, 1995). However, if for a while we assumed that this new technology touches only a small proportion of people, its rate of use by both individuals and professionals and its power have recently become object of scrutiny. Browsing the net has become a crucial act and this has changed the way consumers seek information, communicate and purchase (Bergadaa, Dampérat, & Coraux, 2008).

Online consumers' behaviour is often assumed to have its own properties and to be fundamentally different from a behaviour observed in the physical world (Hoffman & Novack, 1996). On the one hand, this is clear in the increasing use of technology to interact with the retailer's web site and make transactions (Pavlou, 2003; Shih, 2004). On the other hand, distance, the impersonal nature of the online environment, time and space distance and the use of transactions-oriented infrastructures tend to increase consumers' fears and doubts (Pavlou, 2003).

Davis (1989) links perceived ease of use and perceived usefulness with attitudes, intentions and the real behaviour of using computer-based technologies. His Technology Acceptance Model rests on the hypothesis that accepting information systems is determined by the intentions behind using the system. Intentions are influenced by the individual's attitude towards the use of an information system and by perceived usefulness. External variables like the task, user's characteristics and the organisational factors do indirectly influence technology acceptance behaviour through beliefs, attitudes and intentions (Szjna, 1996).

The work of (Davis, Bagozzi, & Warsaw, 1989) on

how consumers accept multi-task-oriented information technology showed that this acceptance may be used to predict online purchasing intention (Winklhofer & Ennew, 2006; O’Cass & Fenech, 2003). In this regard, Davis (1989) assumes that the intention behind using technology is determined by the individual’s attitude towards the use of this technology. Chen, Gillenson and Sherrell (2002) showed that perceived ease of use and usefulness are the first determinants of attitude towards online shops. This attitude tends to improve in the sense that users become more experienced with the computer and internet (Corbitt, Thanasankit, & Yi, 2004; Durnell & Haag, 2002; Liaw, 2002).

The purpose of this study is to identify the determinants of online purchasing intention. To this end, we propose an online purchasing intention model inspired by Davis (1989) TAM and improved by adding the two variables of experience with Internet use and gender.

1. THE LITERATURE REVIEW

1.1 Attitudes Towards Internet Use as a Purchasing Tool

Attitude is defined as a negative or a positive evaluation of behaviour (Ajzen & Fishbein, 1980; Davis, 1989). It refers to feelings of joy, pleasure, happiness, disgust, dislike or hatred towards a given behaviour (Triandis, 1979). Established behavioural theories like reasoned action theory (1975), planned behaviour theory (Ajzen, 1985) or Triandis model (1979) have all defined attitude as a determining factor of intentions. Ajzen and Fishbein model (1975) hypothesises that beliefs influence behaviour through attitude. Triandis (1979) assumes that attitude and beliefs co-determine intentions.

As for information systems, some researchers have also showed that intention to use an information system is influenced by the user’s attitude towards behaviour of use (Davis, 1989; Venkatesh & Davis, 1996, 2000). Karahanna and Straub (1999) maintain that attitudes dominate intention to use information technology. Then, a positive intention of using internet to fulfil a transaction is formed by consumers with positive attitudes towards use of internet.

1.2 Perceived Ease of Use and Perceived Usefulness

Perceived ease of use refers to the effort made by individuals. Davis (1989) defines it by the degree with which users find that the use of the system is effortless. This construct calls back for Rogers’s complexity thesis (1995) which expresses the extent to which innovation is perceived as difficult to understand or use.

Ease of use translates non-complexity degree and establishes the extent to which internet is perceived effortless at best (Frini & Limayem, 2004).

Very often, surfing difficulties are cited as barriers to online purchasing (Ranganathan & Ganapathy, 2002). The inability to use internet, difficulty in accessing it, complexity of the technology and the unease of using computers represent barriers to adopt internet (Katz, 1997). Difficulty of use may create in consumers a negative attitude towards using internet as a shopping tool. Childers, Carr, Peck, & Carson (2000) showed that perceived ease of use determines attitude towards interactive shopping.

As for information systems, some researchers empirically attested for ease of use as a direct determinant of attitude (Mathieson, 1991; Taylor & Todd, 1996; Agarwal & Prasad, 1997, 1999).

Inspired by the previous literature, we propose to link perceived ease of use with attitude. We hypothesise that consumers who perceive internet as easy to use have positive attitudes towards using it for online shopping.

Perceived usefulness refers to the extent to which use of a system or technology improves users’ performance within the organisation (Davis, 1989). This construct is a theoretical substitute for the relative advantage concept developed by adoption theory (Chen et al., 2002). Relative advantage is the extent to which an innovation is perceived as offering a clear advantage. The concept may involve an economic profit, a social prestige or other benefits (Rogers, 1995).

In this study, perceived usefulness relates to the advantages the individual receives from the use of internet like sparing time and money and accessing additional information. However, we propose to link perceived usefulness with attitude and online purchasing intention.

The notion of usefulness refers back to perceived benefit (Au & Enderwick, 2000) and to behaviour positive implications (Davis et al., 1989). Within models of consumer behaviour, perceived implications influence behaviour either directly or often indirectly through attitudes (Malhotra & Mac Cort, 2001). As for information systems, some authors conclude that perceived usefulness determines information technology use (Mathieson, 1991; Taylor & Todd, 1996; Agarwal & Prasad, 1997, 1999).

We hypothesise that consumers, who perceive positive implications for the use of internet and believe that its use is an advantageous form of business, develop a positive attitude towards internet use.

Our hypotheses concerning perceived ease of use and perceived usefulness and their effects on attitude towards internet use are written as follows:

H₁ Perceived ease of use has a positive impact on attitude towards internet use.

H₂ Internet perceived usefulness has a positive impact on attitude towards internet use.

1.3 Experience with Internet Use

Time spent using internet gives users a habit and a know-how that make internet use more productive and costless

than other distribution channels (Ratchford, Talukdar, & Lee, 2001). Moreover, attitude towards internet tends to improve as consumers become more experienced with the computer and internet (Corbitt et al, 2004; Durndell & Haag, 2002; Liaw, 2002). Accordingly, we hypothesise that experience is linked to perceived ease of use and attitude towards internet as a shopping tool.

As technological advances stimulate the increasing use of computers and internet, the number of internet users more and more develops and many people devote more time surfing internet (Hoffman, Novak, & Venkatesh, 2004; Shih, 2004). Consequently, surfing internet makes users grow familiar with it and acquire the knowledge that makes them positively perceive ease of use (Hackbarth, Grover, & Yi, 2003).

Some researchers showed that individual experience significantly affects the computer's perceived ease of use (Igbaria, Guimaraes, & Davis, 2000; Thompson, Higgins, & Howell, 1994). Indeed, during early learning stages, the individual deploys enormous cognitive efforts to acquire necessary new knowledge (Ha & Stoel, 2008). As long as the individual acquires the necessary competence while practising, less cognitive efforts are needed and the impression that technology is easy to use is ultimately nourished (Kanfer & Ackerman, 1989; Kanfer, Ackerman, Murtha, Dugdale, & Nelson, 1994). Experience offers individuals the means to develop their knowledge and to develop more reactions made easy by machine-individual interactivity (Csikszentmihalyi, 1977; Hoffman & Novak, 1996).

In this study, we hypothesise for a relationship between experience with internet use and perceived ease of use. We assume then that experience with internet allows users to acquire new competences, thanks to which less cognitive efforts are deployed and internet ease of use is highly perceived. Then, our hypothesis runs as follows:

H₃ General experience with internet use positively affects perceived ease of use.

While general access and competence in using internet are improved, consumers' attitudes considerably differ because of a variety of experience levels with using internet (Durndell & Haag, 2002; French & O' Cass, 2001; Jackson, Ervin, Gardner, & Schmitt, 2001). Liaw (2002) noted that a positive attitude towards internet was linked to previous levels of experience with internet. We suppose then the following hypothesis:

H₄ General experience with internet use positively affects attitude towards online shopping.

1.4 Differences Related to Gender

Jayawardhena, Wright, & Dennis (2007) attested for a significant relationship between gender and online purchasing intention. Leonard (2003) and Tweney (1999) showed that males are more likely to shop online than females. In sum, males are shown to be more active in purchasing products/services online than females. Moreover, attitude

towards internet is also shown to be more positive for males than for females (Durndell & Haag, 2002; Liaw, 2002).

However, if gender has been largely studied in marketing, it was rarely studied in relation to internet use. In this study, we propose then to attest for its impact and formulate the following hypothesis:

H₅ Males show a more positive attitude towards shopping online than females.

1.5 Online Purchasing Intention

Online purchasing intention has been subject to extensive research. Consumers' intention to buy online allows for determining consumers' intention to undertake a purchasing behaviour specific to internet (Salisbury, Pearson, Pearson, & Miller, 2001). Moreover, reasoned action theory suggests that consumer behaviour may be predicted through intentions that are perceived in terms of actions, objectives and the context of this behaviour (Ajzen & Fishbein, 1980).

Purchasing intention may be classified as a component of a consumer's cognitive behaviour revealing the way an individual intends to purchase a specific brand (Huang & Su, 2011). Online purchasing intention is the context to which a customer shows readiness to undertake an online transaction (Ling, Chai, & Piew, 2010). According to Triandis (1979), intentions represent self-instructions to behave in a certain way. It implies instructions like "I should do ...", "I am going to do ..." or "I will do ..."

Intention is often considered as a mediating variable between attitudes and behaviour (Ajzen & Fishbein, 1985, 1985). It is the individual's self-instructions to behave in certain way (Triandis, 1979). It represents desires, wishes or willingness to behave (Limayem, Khalifa, & Frini, 2000). Taylor and Todd (1995) claim that thanks to the ability of predicting intentions of use, predicting behaviour is made possible. Davis (1989) assumes that intentions to use a system directly determine use. Childers et al. (2000) define intention to purchase online in terms of a threshold from which the consumer is likely to purchase a product or a service from a specific web site. Purchasing intention may determine real purchasing behaviour. Rogers (1983) shows that the relative advantage of an innovation is positively correlated to its adoption rate. Davis et al. (1989) distinguish between pre-adoption and post-adoption phases. The authors consider that perceived usefulness remains a determinant of intentions to use a system during these two phases. Szajna (1996), empirically attesting for Davis et al's distinction, concludes that perceived usefulness determines intentions to use during these two phases.

We suppose that intention to use internet for shopping is formed by consumers who perceive positive outcomes of internet use and consider that its use is an additional advantageous business tool.

We propose then that perceived usefulness determines

intention to purchase online and propose the following hypothesis:

H₆ Internet perceived usefulness positively influences online purchasing intention.

Early research on e-commerce points to the importance of attitude in explaining online consumer behaviour. Duhaime et al. (1996) classify attitude as an internal factor which influences the individual's behaviour. Hénault (1973) maintains that individuals' behaviour may be described, understood and predicted by their attitudes and that these attitudes are modelled by inter-personal and intra-groups relationships. Consistent with Triandis (1979), Ajzen & Fishbein (1980) maintain that consumers' attitude is not directly correlated with their behaviour, rather with intention. Teo (2002) assume that online behaviour is affected by attitude vis-à-vis information technology. Chen et al. (2002) attest that attitude directly determines online purchasing intention. Other researchers have stud-

ied the impact of attitude on purchasing intention. For instance, Pavlou and Chai (2002) maintain that in a collectivist culture, attitude significantly influences consumers' intentions to undertake online transactions. However, this latter thesis is not attested for in an individualistic culture. Limayem et al. (2000) and George (2002) showed that attitude determines consumers' intentions to buy online.

We assume then that positive attitude towards internet use positively influences consumers' intention to use internet to shop. Thus, the following is our next research hypothesis:

H₇ Positive attitude towards internet use positively influences consumers' intention to purchase online.

The different relationships established so far and made the focus of our research hypotheses and inspired from Davies technology acceptance model (1989) are elaborated in the Figure 1.

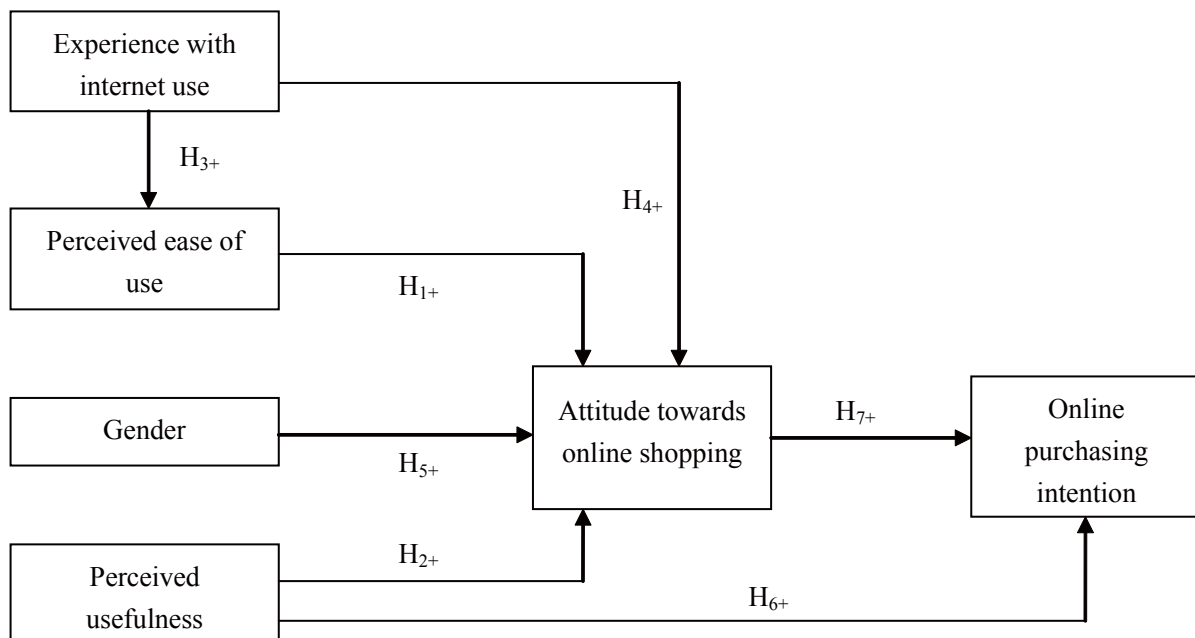


Figure 1
Research Model

2. THE EMPIRICAL STUDY

2.1 Methodology

In order to attest for our hypotheses, we conducted an empirical study of a sample of students (N=147) studying at the School of E-Commerce of Tunis and considered knowledgeable of the use and manipulation of internet. The sample did not undertake a real online purchase as we are interested in their intentions to buy online.

Given the causality relationships between the dependent and independent variables, the choice of a linear regression for the quantitative variables and ANOVA for the nominal variables are seen appropriate.

Table 1 displays demographic variables associated with the sample. Of the total sample, 39.5 per cent were men and 60.5 per cent were women. A large percentage of the interviewees belonged to the age segment between 20 and 22 (49.7 per cent) and were educated in e-commerce (67.6 per cent).

Table 1
Main Attributes of the Sample

Attributes	Proportion in % (N=147)
Gender	
Male	39,5
Female	60,5
Age	
Less than 20 years	34,7
[20-22]	49,7
More than 22 years	15,6
Focus	
e-commerce	67,6
e-service	32,4

2.2 Measurement of Variables

As shown in Table 2 below, the measurement scales used for this study have been designed with reference to previous research.

To measure attitude towards e-commerce, we used the Personal Involvement Inventory (Zaichkowsky, 1994), with few modifications to adjust it to online purchasing.

To measure perceived ease of use and perceived use-

fulness, we adopted the scale designed by (Davis, 1989; Ahn, Ryu, & Han, 2004). The variable “experience with internet use” and “online purchasing”, have been measured by respectively using the 3-item scale of Connolly and Bannister (2008) and the 4-item scale of Chen and Barnes (2007). All items have been measured by a five-point Likert scale ranging from “totally agree” to “totally disagree”. Table 2 describes how the variables used in this research were measured.

Table 2
Measurement Scales

Construct	Scale type	Item Coding	Item descriptions	Source
Attitude to online shopping	Likert 5	ATTI1	Using the internet for shopping is enjoyable	<i>Adapted from Zaichkowsky, (1994), O’Cass & Fenech (2003) and Goldsmith (2002)</i>
		ATTI2	Using the internet for shopping is convenient	
		ATTI3	Using the internet for shopping is absorbing	
		ATTI4	Using the internet for shopping is attractive	
		ATTI5	Using the internet for shopping is interesting	
		ATTI6	Using the internet for shopping is worth it	
		ATTI7	Using the internet for shopping is pleasant	
		ATTI8	Using the internet for shopping is secure	
		ATTI9	Using the internet for shopping is necessary	
		ATTI10	Using the internet for shopping is a good idea	
Perceived usefulness	Likert 5	USEFUL1	Using the internet for shopping enables me to accomplish shopping tasks more quickly	Adapted from Davis (1989) and Ahn et al. (2004)
		USEFUL2	Using the internet for shopping helps me to make better purchase decisions	
		USEFUL3	Using the internet for shopping improves the performance of my shopping tasks	
		USEFUL4	Using the internet for shopping saves me money	
		USEFUL5	Using the internet for shopping improves the quality of my shopping tasks	
		USEFUL6	Using the internet for shopping increases the productivity of my shopping tasks	

(To be continued)

(Continued)

Construct	Scale type	Item Coding	Item descriptions	Source
Perceived ease of use	Likert 5	EASE1	I think that I would find it easy to learn how to shop online	<i>Adapted from Davis (1989) and Ahn et al. (2004)</i>
		EASE2	I think that it would be possible for me to shop online without the help of an expert	
		EASE3	I think that I would have no problems interacting with the internet when shopping	
		EASE4	I think that I could become skilful at online shopping	
		EASE5	I think that shopping online does not require a lot of mental effort	
		EASE6	I think that it is easy to use the internet to find products that I want to buy	
Experience	Likert 5	EXP1	Using the internet has been a good experience to me personally	<i>Connolly & Bannister (2008)</i>
		EXP2	I have positive experiences of using the internet	
		EXP3	I have good experiences of using the internet	
Online purchasing intention	Likert 5	INT1	I intend to buy through internet	Adapted from Chen & Barnes (2007)
		INT2	It is probable that I would buy through internet in the future	
		INT3	I intend to buy through internet in the future	
		INT4	I would buy through internet in the future	

3. RESULTS OF THE STUDY

The dimensions presented in Table 2 have been designed with reference to scales described in the literature. Their reliability estimates have been tested and their dimensionality has been assessed by a factor analysis using the SPSS 11.0 software. Table 3 summarizes these estimates.

Table 3
Cronbach's Alpha Values for the Study Variables

Variables	Cronbach Alpha (α)
Attitude towards purchasing online	0,7872
Perceived usefulness	0,8931
Perceived ease of use	0,8345
Experience with internet use	0,8261
Online purchasing intention	0,7178

To attest for our research hypotheses H_1 , H_2 and H_4 , we conducted a multiple linear regression to evaluate degree of importance of each variable (Table 4). We note that the global regression model is significant ($p=0,000<0,05$).

Table 4
Regression Analysis Results for Attitude to Online Shopping

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (constant)	0.347	0.484		0.627	0.438
Perceived ease of use	0.150	0.054	0.254	3.264	0.000
Perceived internet usefulness	0.189	0.059	0.161	2.929	0.034
Experience with internet use	0.268	0.055	0.267	4.439	0.000

Dependent Variable: attitude towards online shopping

Independent variables: perceived ease of use, perceived internet usefulness and experience with internet use.

Notes: Model summary: R = 64.4 per cent; R Square = 41.2 per cent; Adjusted R Square = 39.1 per cent; F = 40.870; P = 0.000 ($p<0.05$)

Moreover, the relationship between the independent variables and the dependent variable (Attitude towards internet use) is positive:

- Perceived ease of use \rightarrow attitude towards internet use ($\beta=0,150$; $t=3,264$), hence H_1 is supported.

- Perceived usefulness of internet \rightarrow attitude towards internet use ($\beta=0,189$; $t=2,929$), hence H_2 is supported.
- Experience with internet use \rightarrow attitude towards internet use ($\beta=0,268$; $t=4,439$), hence H_4 is supported.

Then, we can conclude that the variables "perceived ease

of use”, “perceived usefulness of internet” and “experience with internet use” positively influence attitude towards internet use for online shopping. These variables determine attitude towards internet use as an e-commerce tool.

Based on the SPSS output, the following multiple regression equation was formed:

$$\text{Attitude to online shopping} = 0,347 + 0,150 (\text{Perceived ease of use}) + 0,189 (\text{Perceived usefulness}) + 0,268 (\text{Experience})$$

The values of the un-standardized Beta coefficient among the independent variables shows that “experience” (0.268) is the most important antecedent in affecting

the attitude to online shopping. In addition, the attitude towards online shopping is explained 41.2 percent by the combination of the three independent variables ($r^2 = 0.412$), which includes perceived ease of use, perceived usefulness and experience.

As for H_3 , the simple linear regression (Table 5) reveals that the global regression model is significant ($P = 0,000 < 0,05$). Moreover, the relationship between “experience with internet use” and “ease of use” is negative ($\beta = -0,355$; $t = -0,931$). Then, “experience with internet use” has no positive impact on perceived ease of use. Hence, H_3 is not supported.

Table 5
Regression Analysis Results for Perceived Ease of Use

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(constant)	0.456	0.434		0.714	0.481
	Experience	-0.355	0.484	-0.895	-0.931	0.000

Dependent Variable: Perceived ease of use

Independent variable: experience

Notes: Model summary:

R = 42.2 per cent; R Square = 34.9 per cent; Adjusted R Square = 31.5 per cent;

F = 39.78; P = 0.000 ($p < 0.05$)

To test H_6 and H_7 , a third linear regression is conducted. The results (Table 6) show that the global regression model is significant ($P = 0,001 < 0,05$). Nevertheless, the relationship between perceived internet usefulness and online purchasing intention is negative ($\beta = -0,136$; $t = -$

$2,704$). Hence, H_6 is not supported. Moreover, the relationship between attitude towards purchasing online and online purchasing intention is positive ($\beta = 0,232$; $t = 3,600$). Hence, H_7 is supported.

Table 6
Regression Analysis Results for Online Purchasing Intention

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error			
1	(constant)	0.285	0.311		0.839	0.512
	Perceived internet usefulness	-0.136	0.059	-0.151	-2.704	0.007
	Attitude towards purchasing online	0.232	0.072	0.154	3.600	0.001

Dependent Variable: online purchasing intention

Independent variables: perceived internet usefulness and attitude towards purchasing online

Notes: Model summary: R = 53.9 per cent; R Square = 32.2 per cent; Adjusted R Square = 26.9 per cent; F = 43.620; P = 0.001 ($p < 0.05$)

Then, we conclude that attitude towards purchasing online is a factor explaining online purchasing intention. Table 6 reports the results of the regression analysis.

The multiple regression equation is written as follows:

$$\text{Online purchasing intention} = 0,285 - 0,136 (\text{perceived internet usefulness}) + 0,232 (\text{attitude towards purchasing online})$$

The values of the un-standardized Beta coefficient among the independent variables shows that “attitude to online shopping” (0.232) is the most important antecedent in affecting the online purchase intention. In addition,

the online purchase intention is explained 32.2 percent by the combination of the two independent variables ($r^2 = 0.322$), which includes perceived usefulness and attitude to online shopping.

To test H_5 , we used a variance analysis to see whether the variable “gender” (independent variable) affects online purchasing intention (dependent variable). The results indicate that the relationship between gender and online purchasing intention is significant. Comparing the means, we find that attitude towards purchasing online is higher

for females than for males (Mean Female= 127.929 > Mean Male= 64.114) (Table 7). Hence, H₅ is not support-

ed. Table 8 shows the summary of the five hypotheses and its outcomes.

Table 7
Analysis of Variance (ANOVA) for Attitude Towards Purchasing Online

Model	Sum of squares	Df	Mean of squares	F	Significance
Male (N=59)	246.427	4	64.114	2.634	0.042
Female (N=88)	611.702	20	127.929	11.485	0.000

Dependent Variable: attitude towards purchasing online
P = 0.036 (p<0.05)

DISCUSSION OF THE RESULTS AND CONCLUSIONS

Consumers tend to considerably modify their purchasing behaviour with ongoing developments of internet and e-commerce (Alba et al., 1997). Internet offers notably the possibility to easily and rapidly reach information, to compare offers, choose the purchasing and delivery methods, or establish a direct relationship with the firm.

The aim of this paper is to determine the factors which influence online purchasing intention. Using Davies TAM (1989), we proposed a theoretical model explaining consumers' acceptance and use of internet to undertake online transactions. Then, we supplemented this model by integrating new models; experience with internet use and gender.

The direct and positive influence of attitude towards purchasing online on online purchasing intention confirms similar results obtained by the literature which showed that a positive attitude towards electronic tools is a significant predicting factor behind adopting internet for purchasing online (Chau & Lung, 1998; Eastlick & Lotz, 1999; Goldsmith, 2000; O'Cass & Fenech, 2003).

Our results indicate that the cognitive variables of "perceived usefulness" and "perceived ease of use" affect attitude towards internet use. This latter variable affects intention to purchase online. Moreover, our study suggests that consumers' experience with internet is a fundamental variable in the online purchasing process. Furthermore, the variable "gender" is shown to significantly affect attitude towards adoption of e-commerce. This variable reveals that females rather than males are more willing to conduct online shopping actions.

These conclusions have nevertheless some limitations and open new research venues. Firstly, the study focused on measuring off-line attitudes (future purchasing intention) and not real online "purchasing behaviour". Then, future research might possibly test our model over online purchasers to test the reliability of our results.

Another limitation is that our model did not take into account some other variables. These are the variables of

age, trust and culture. Firstly, concerning the explanatory variables of internet use, age is considered crucial as it represents a socio-demographic variable which most likely explains resistance to technology use (O'Cass & Fenech, 2003). Secondly, one of the factors that prevent consumers to buy online is the security and privacy protection issues (George, 2002). Moreover, the security issue has been often studied by several researchers as a factor behind attitude towards internet, let alone shopping through internet (Chen & Barnes, 2007; Goldsmith, 2002; Park & Jun 2003; Teo, 2002). It has been claimed that trust determines attitude towards online shopping (George 2002, Jarvenpaa, Tracktinsky, & Vitale, 2000; Pavlou, 2003). Finally, internet currently links an international context in which different cultures and attitudes co-exist. Then, it is interesting to study the effect of these variables and to integrate them in our model as independent variables.

Given the fact that the perceived risk of adopting internet as a business tool is higher in an online shopping environment, another concern is to study the impact of perceived risk on the variables of our model.

This study has some relevant managerial implications as well. Our study may help managers determine the perception of the advantages and risks of this new business tool. This would help them adjust their marketing strategies in order to attract most of their potential consumers and to profit most from the opportunities offered by e-commerce. Knowing very well how consumers perceive internet, the factors that incite consumers to adopt/reject an online purchasing behaviour, the specificity of online consumers' behaviour from information search to purchasing online would help managers implement efficient strategies that would guide consumers towards finalising an online purchasing behaviour.

Finally, this study aimed at helping designers in customizing their web site design strategies. Indeed, a deep understanding of how consumers decide to purchase online would help them improve web site design in order to allow consumers to better explore the web site and ultimately buy online.

Table 8
Summary of the Seven Hypotheses and Outcomes

Hypotheses	Outcome
H ₁ : Perceived ease of use has a positive impact on attitude towards internet use.	Supported
H ₂ : Internet perceived usefulness has a positive impact on attitude towards internet use.	Supported
H ₃ : General experience with internet use positively affects perceived ease of use	Not Supported
H ₄ : General experience with internet use positively affects attitude towards online shopping.	Supported
H ₅ : Males show a more positive attitude towards shopping online than females.	Not Supported
H ₆ : Internet perceived usefulness positively influences online purchasing intention.	Not Supported
H ₇ : Positive attitude towards internet use positively influences consumers' intention to purchase online.	Supported

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