

ONLINE SHOPPING MOTIVATION FACTORS AND THEIR EFFECT ON LITHUANIAN CONSUMERS

Liudmila Bagdoniene¹, Jurgita Zemblyte²

Kaunas University of Technology, Lithuania

¹liudmila.bagdoniene@ktu.lt, ²jurgita.zemblyte@ktu.lt

Abstract

The number of Internet users is growing, but only small part of them buys products/services online. The objective of the paper is to highlight the factors that are meaningful to consumer motivation to shop online and their possible effect on Lithuanian consumers. The results of literature analysis show that there are three groups of factors effecting online shopping: 1) perceived characteristics of the Internet as a sale channel, 2) consumer characteristics and 3) characteristics of the product. However, the significance of the factors depending to these groups is mixed or not clearly reported. The results from the empirical study show that the convenience makes the most important influence on Lithuanian consumers who shop online. While the limited abilities to get acquainted with a product/service by means of senses is the most important factor why consumers resist shopping online.

Keywords: online shopping motivation/demotivation, internet, service/product, consumers, Lithuania.

Introduction

More companies are offering their products/services over the Internet, as the number of Internet users is growing rapidly and online technologies are improving. Nearly a quarter of the world's population – roughly 1.4 billion people – used the Internet on a regular basis in 2008 (IDC's Digital Marketplace Model and Forecast). This number is expected to surpass 1.9 billion unique users or 30 percent of the world's population in 2012 (<http://www.idc.com>). In recent years the number of Internet users in Lithuania continues to grow too. According to the statistics released by the Statistics Lithuania (<http://www.stat.gov.lt>), about 48.7 percent of Lithuanians used the Internet in 2007, while 29.2 percent in 2004.

The Internet offers a wider range of benefits for consumers, such as easy availability of information, in-depth search, intelligent products' comparisons, quick, convenient and inexpensive evaluation of the offerings of various retailers, etc. However, despite the advantages of using the Internet and the fact that a number of Internet users is growing, only small part of Lithuanian population buys products/services online. For instance, only 7.2 percent of Internet users in Lithuania bought or ordered products/services for personal needs online in 2007. Hence, there are noticeably less online shoppers (who use the Internet as a shopping medium) than the information searchers (who use the Internet solely as a source for products/service information and do not buy online) in Lithuania. Reasonably, the question arises: why does such a small part of Internet users in Lithuania buy products/services online, as distinct from other countries (for example, UK, Germany)?

The consumers' motivation to shop online is researched from either a consumer- or technology-oriented view. The consumer-oriented view focuses on consumers' salient beliefs about online shopping. Researchers analyze such factors that may influence online shopping as convenience, perceived usefulness, perceived enjoyment or fun, product inadequacy, purchase conditions, demographic characteristics, etc. Hence the consumers' adoption or unwillingness to shop online is impacted by a number of factors. The holistic view of motives of online shopping acceptance from the perspective of a consumer is presented by Chang et al. (2004) and Zho et al. (2007). The technology-oriented view explains and predicts consumer acceptance of online shopping by examining technical specifications of an online store such as interface features, Web site content and design, system usability, etc. We believe that the success of an e-market depends on consumers' willingness to accept it, thus we adopt the consumer-oriented view of online shopping in this study.

The objective of the article is to highlight the factors that are meaningful to consumer motivation to shop online and their possible effect on Lithuanian consumers.

Research methodology: analysis of scientific literature, logical and comparative analysis, online survey, statistical analysis of data.

Online shopping factors: review of some studies results

The attraction and retention of consumers is critical to the success of internet retailers. Due to that, the researches on consumers' acceptance of online shopping have attracted widespread attention. The researchers have shown that adoption or unwillingness to shop online is impacted by a number of factors. Drawing upon the existing literature, we summarize some of them in Table 1. We used the categorization of factors proposed by Chang et al. (2004) which include three categories 1) perceived characteristics of the Internet as a sale channel, 2) consumer characteristics and 3) characteristics of the product for summary. As one may see from Table 1, we identified 17 factors from the first, 18 factors from the second, and 7 factors from the third category related to online shopping. Also it is obvious that the inclusion of separate factors into research is different. Researchers pay more attention to such factors that affect online shopping usage as benefits of online shopping. The researchers investigate such benefits of online shopping as: usefulness (Fenech and O'Cass, 2001; Teo, 2001; Vijayasarathy, 2003; Chen and Tan, 2004; Chiu et al., 2005; Barkhi and Wallace, 2007), ease of use (Teo, 2001; Vijayasarathy, 2003; Chen and Tan, 2004; Chiu et al., 2005; Barkhi and Wallace, 2007; Shang et al., 2005), enjoyment/adventure (Teo, 2001; Huang and Oppewal, 2006; Dholakia and Uusitalo, 2002; To et al., 2007 and Shang et al., 2005), information availability (Joines et al., 2003; Chen and Tan, 2004; Sorce et al., 2005; Teo and Yu, 2005) and price/charge/cost saving (Fenech and O'Cass, 2001; Foucault and Scheufele, 2002; Huang and Oppewal, 2006; To et al., 2007). However, the findings of the studies did not indicate significant impact of all these factors (for example enjoyment/adventure, price/charge/cost saving) on online shopping motivation. As one may see from Table 1, some factors are unique and had only been investigated in one study, for example, value and idea (To et al., 2007) rewarding and selection (Dholakia and Uusitalo, 2002). As technology is improving and more often consumers shop online, we think that the influence of all above-mentioned factors and new ones on consumers' decision to buy service/product via the Internet should be investigated more intensively in the future. Besides, we suppose that researchers should pay more attention to examining the link between benefits and products characteristics online.

Analyzing the literature related to online shopping, we found that the researchers pay more attention to demographics and experience of consumers. The most frequently studied factors from demographics are age (Teo, 2001; Joines et al., 2003; Sorce et al., 2005; Dholakia and Uusitalo, 2002) and gender (Teo, 2001; Brown et al., 2003; Dholakia and Uusitalo, 2002). Some researchers examine education (Teo, 2001), household income and family composition (Dholakia and Uusitalo, 2002) as demographic factors effecting shopping online. However, the results of demographic characteristics and motivation to shop online are mixed. The previous online purchase (Foucault and Scheufele, 2002; Brown et al, 2003; Huang and Oppewal, 2006) and peer influence (Foucault and Scheufele, 2002; Vijayasarathy, 2003; Barkhi and Wallace, 2007) are the most frequently studied factors from experience group (see Table 1). The empirical studies (Sorce et al., 2005; Huang and Oppewal, 2006) showed that convenience-oriented shopping motivation, recreational (Fenech and O'Cass, 2001) and economic orientation (Joines et al., 2003) were related to consumer online shopping behaviour. We are of the opinion that not only the relationship between motivation to shop online and online orientation but between motivation to shop online and also products characteristics are worth further studies. A product category may affect the intention to shop online, for example, consumers perceive different risk with different products. In order to compare different features of a product/service offered online, Zhou et al (2007) state, that there is the need for new classification taxonomy of online products; it should be developed in order to standardize and systematically categorize studies on online shopping behaviour that involves different products.

Overall, we can state, that the knowledge about the factors that may influence consumers' online shopping decision can help to develop appropriate online marketing strategies to new consumers and to retain existing ones.

Table 1. Summary of factors related to online shopping

Factors/authors		Citrin et al. (2000)	Fenech and O' Cass (2001)	Teo (2001)	Foucault and Scheufele (2002)	Joines et al. (2003)	Vijayasathya (2003)	Brown et al. (2003)	Chen and Tan (2004)	Sorce et al. (2005)	Chiu et al. (2005)	Teo and Yu (2005)	Huang and Oppewal (2006)	Barkhi and Wallace (2007)	Dholakia and Uusitalo (2002)	To et al. (2007)	Shang et al. (2005)	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Number of respondents		403	392	1370	156	118	281	437	253	300	376	1171	152	257	800	206	523	
Service/product		n.s.	10 products	n.s.	textbooks	n.s.	n.s.	n.s.	n.s.	17 products	n.s.	n.s.	grocery	n.s.	n.s.	n.s.	n.s.	
Perceived characteristics of the Internet as a sale channel																		
Barriers	internet security / privacy concerns		-			-	+				+							
	low perceived trust								+									
	perceived stress														+			
	lack of sociality															*		
Benefits	usefulness		+	+			+		+		+			+			*	
	ease of use			*			+		*		+			+	+		+	
	convenient														+	+		
	efficient														+			
	enjoyment / adventure			*									+		+	*	*	
	rewarding														+			
	information availability					+			*	+						+		
	selection															+		
	price / charge / cost saving		*		*								+			+		
	value (sales, bargains, discounts)																*	
	idea (discover new trends)																*	
	perception that needs will be met				+													
	control / authority					+											*	*
Consumer characteristics																		
Demographics	gender			+				+							*			
	age			+		+				*					+			
	education			*														
	household income														+			
	family composition														+			
Shopping orientation	recreational		+															
	economic					+												
	convenience									+			+					
	socialization					+										*		

Table 1. (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Experience	Internet use	+															
	shopping innovativeness (non-store experience)		+												+		
	previous online purchase				+			+					+				
	compatibility						+		+								
	self-efficacy						+										
	peer influence				+		+							+			+
Personal traits	personal innovativeness										+						
	innovativeness (checking for new websites)	+									+						
	consumer personality type												+				
Characteristics of the product																	
	customized products or services																*
	usability of storefront								+								
	brand and name recognition				+												
	product type							+	+								
	handling merchandise			-													
	perceived service quality								+								
+ denotes positive significant impact, - denotes negative significant impact, * denotes insignificant impact n.s. means that researchers did not specified concrete products or services																	

Research methodology

The aim of the empirical research is to examine factors that motivate or demotivate respondents to shop online. The study population is members of academic community. The sampling methods – convenience sample. We sent out 1363 e-mails by known e-mail addresses with the invitation to participate in the research and fill in the questionnaire posted on the World Wide Web.

We received 277 questionnaires (20.3 percent response rate). The research is a pilot study, thus all findings are applicable only to the study sample. The research was performed in December 2007.

The questionnaire included four diagnostic blocs: 1) gathered information about the type of online consumers based on their behaviour (an online shopper or an information searcher), 2) collected information about the factors that motivate to shop online, 3) collected information about the factors that demotivate to use the Internet as means for product/service purchasing, 4) comprised questions on demographic characteristics. Individuals were asked to indicate their agreement with motivation or demotivation items based on the five-point Likert-type scale from (1) strongly disagree to (5) strongly agree.

The data were analyzed using the SPSS 16.0 statistical package. We used the following methods: 1) descriptive statistics, 2) high-abstraction statistics: factor analysis was used to identify motivation or demotivation dimensions to shop online, correlation analysis (Spearman coefficient) – for the correlation between the motivation and demotivation scales, and non-parametric tests (Mann-Whitney, Kruskal-Wallis and Chi-Square) – to discover relationship between dependable (dimensions of motivation and demotivation) and undependable (demographic characteristics and experience using the Internet) variables.

Research results and discussion

Demographics of the sample. Among the respondents, 181 (72.1 percent) identified themselves as online shoppers (further in the text – the respondents of Group A), 70 (27.9 percent) identified themselves as information searchers on the Internet (further in the text - the respondents of Group B), other 26 (9.4 percent) did not indicate, thus these answers of the respondents were deleted from the analysis.

As one may see from Table 2, the respondents of Groups A and B are very similar, except for respondents' occupation. The biggest part of the respondents in Group A is students (38.7 percent), in Group B – wage-earners (38.6 percent). Chi-Square test of demographic characteristics and behaviour on the Internet (to shop or to search) indicate that there is no significant difference ($p \geq 0.05$).

Table 2. Dominant respondents groups by demographic profile

Variable	Characteristics of respondents	Respondents of Group A (percent from the whole group)	Respondents of Group B (percent from the whole group)
Gender	female	74.0	81.4
Age	below 24	62.4	62.9
Education level	degree	76.2	72.9
Income (monthly for one family member)	501-1000	33.1	32.9
Internet use duration and frequency	More than 5 years and everyday	70.7 87.8	68.6 91.4

Factors motivating respondents to shop product/service online. Principal components factor analysis was employed to empirically identify the main underlying dimensions in the motives data. Five factors were produced from motivation variables: convenience, product variety, purchase surrounding, information depth and brand, accounting for almost 60 percent of variance (see Table 3). The results show that the strong point to shop online for the respondents of Group A is a convenience dimension. It includes variables related to 1) better use of time, 2) the opportunity to save time and 3) the possibility to shop online for 24-hour a day. This dimension is the most important for respondents deciding to shop or not to shop online, as 70-69 percent of the respondents agree to them. The least specific feature of this group respondents' motivation is a brand dimension. It reveals that the respondents prefer to buy well-known brands' products/services on the Internet. 32 percent of the respondents indicated the agreement to that.

On the strength of the factors loading criteria amplitude (ranging from 0.54 to 0.87), we can state that the ability to shop online any time and anywhere, thus general benefit of the Internet, has the strongest effect for respondents' decisions to shop online. Whereas, the ability to compare prices of products and services offered by different companies has the weakest effect. The results of intercorrelation (Spearman coefficient) for the motivation dimensions confirmed that Group A respondents' evaluation of such dimensions as convenience, product variety and purchase surrounding are positively correlated with a information depth dimension ($r=0.38$ ($p<0.01$), $r=0.21$ ($p<0.05$), $r=0.22$ ($p<0.05$) respectively), while product variety – with purchase surrounding ($r=0.22$ ($p<0.05$)). Mann-Whitney, Kruskal-Wallis and Chi-Square tests were used to test the differences of motivation dimensions' evaluation. The results indicate that there is no significant effect for demographic characteristics of respondents (gender, educational level, occupation, income) on evaluation. Significant differences are found between the use of the Internet and brand dimension ($X^2=3.75$, $p<0.05$), and between online shopping experience and convenience dimension ($X^2=10.57$, $p<0.03$). The respondents who use the Internet everyday evaluate the brand dimension as more important. The respondents who have less experience on shopping online evaluate the convenience dimension as less important. Thus it can be stated that respondents' motivation to shop online is effected only by respondents' Internet and online experience.

Factors demotivating respondents to shop product/service online. For the demotivation variables, the factor analysis retrieved five factors, accounting for satisfactory of 81 percent of variation (see Table 4). The results indicate that the strong point not to shop online for the respondents of Group B is a risk dimension. 11.5-17.2 percent of the respondents agree to the items of this dimension. The least specific feature of this group respondents' demotivation is a sense dimension. This discloses that the respondents resist buying

online as they cannot experience the product/service using all five senses (sight, smell, sound, taste, and touch). 24.3 percent of the respondents indicated this opinion.

Table 3. Motivation dimensions (Alpha model, Varimax rotation, 60.15 of the variance; KMO 0.58)

Motivation dimensions and the items	Factor loading	Cronbach - α	Variance explained (%)	Agree* (%)
1. Convenience		0.76	15.46	
24-hour shopping capability	0.87			69.0
better use of time (faster access to information)	0.83			70.2
the save of time opportunity (no crowd of people shopping and no traffic jam)	0.72			69.6
2. Product variety		0.52	12.43	
broad range of products/services available on the Internet	0.81			19.9
Internet as the only way to find specific product/service	0.69			15.5
availability of products/services on the Internet that cannot be found locally	0.57			22.1
3. Purchase surrounding		0.43	11.90	
fun to buy a product/service online	0.79			18.3
low pricing on the Internet or some service for free	0.57			38.7
no stress from company's personnel to buy something	0.55			50.3
4. Information depth		0.44	10.76	
ability to collect detailed information on products/services	0.85			54.7
ability to compare prices of products/services offered by different companies	0.54			48.7
5. Brand		-	9.60	
I like to buy only well-known brands products/services on the Internet	0.77			32.0

* percentage of respondents who responded strongly agree (5) or agree (4)

Table 4. Demotivation dimensions (Alpha model, Varimax rotation, 80.73 of the variance; KMO 0.56)

Demotivation dimensions and the items	Factor loading	Cronbach - α	Variance explained (%)	Agree* (%)
1. Risk		0.83	20.44	
misuse of the personal information by Internet retailers	0.90			15.7
may be delivered not the ordered product/service	0.78			11.5
product return information is unclear	0.71			15.7
not secure payment (need to give credit card number)	0.69			17.2
2. Economic		0.68	18.61	
high delivery charge	0.83			5.7
no credit card	0.82			18.6
the product/service desired are high-priced	0.62			14.3
3. Conditions and ability		0.84	18.15	
cannot find the product/service desired	0.90			7.2
too difficult to order product/service via Internet	0.76			5.8
not ready to shop product/service online	0.73			5.7
4. Time and socialization		0.72	13.77	
prefer to buy in local shops, as don't like to wait for product/service delivery	0.83			21.5
no need	0.83			25.7
prefer to buy in local shops, as like to socialize with shop personnel	0.66			45.7
5. Sense		-	9.76	
difficult to decide based only on description or view of product/service (cannot see and inspect the real product)	0.96			24.3

* percentage of respondents who responded strongly agree (5) or agree (4)

The results of intercorrelation (Spearman coefficient) for the demotivation dimensions confirmed that Group B respondents' evaluation of risk and economic dimensions are positively correlated with conditions and the ability dimension ($r=0.46$ ($p<0.05$), $r=0.55$ ($p<0.05$) respectively), and the time and socialization dimension – with the sense dimension ($r=0.90$ ($p<0.01$)). We examined the relationships between demographic characteristics, experience of the respondents and the evaluation of demotivation dimensions. The analysis indicates the significant effect of gender on evaluation of the time and socialization dimension (Mann-Whitney $U=158$ ($p<0.04$)) and the sense dimension (Mann-Whitney $U=109$ ($p<0.01$)). Specifically, evaluations of the above-mentioned dimensions associated with not online shopping were higher for females (a mean of 4.08 and 3.93 respectively) than males (a mean of 3.83 and 3.66 respectively). One possible explanation may be that females are more likely to use the Internet for messaging activities and socialization but do not want to buy a product/service online as cannot inspect them. In other words, females are more oriented to experiential, while males – to goal-oriented behaviour. Moreover, the evaluation of the risk dimension depends on respondents' educational level ($X^2=8.11$, $p<0.02$). Those with higher education evaluate risk dimension higher (a mean of 3.75) than with secondary education (a mean of 2.82). One likely reason is that the respondents with higher education are more informed and perceive possible problems of shopping online more realistic. In terms of other demographic characteristics (age, income) and respondents' Internet experience, the insignificant results for the effect of all demotivation dimensions are found.

Summing up the results, it seems that convenience and product variety dimensions have the biggest effect on Group A respondents' motivation to shop online. Thus most respondents like to find out products/services by their own way and in their own time. The importance of the above-mentioned dimensions shows that the respondents are convenience-oriented consumers. The information variety dimension is evaluated high by the respondents of Group A as well. This is the intention of the respondents to decree more informed decisions and achieve the desired task performance. It should be mentioned that the respondents do not rate the price factor high. One possible reason is that consumers buying a product/service online do not expect products at the lower price than in offline market. Well-known brands product/services on the Internet are also important for the respondents of Group A, as it may reduce the perceived risk. Thus the results of our study should stimulate online retailers to create and communicate to consumers about convenience, product/service information depth and accessibility online. In other words, the retailers should emphasize rational not emotional values of online shopping.

The respondents of Group B do not shop online due to different importance of demotivation dimensions. The biggest barrier to shop online is perceived risk. Thus the respondents are much concerned with security of their private information, but they do not see threat of payment system security. It may be related to the fact that retailers and banks highlighting security symbols have already created quite secure payment environment. The impeding factor to shop online is difficulties to inspect product/service online and to make the decision based on the description of a product/service or product view. In general, this is the main weakness of the Internet, as the consumers cannot use senses, except for sight. Consistent with Group A, the respondents of Group B do not think that price of product/service online are high. Though, the respondents' perceived risk rises and they are unwilling to shop online as they should wait for product/service delivery. Thus we could state that the psychological risk is more demotivating than financial risk. The need for socialization has little effect on Group B respondents' demotivation to shop online. It is important that technological incompetence as demotivation factor to shop online is typical only to small amount of the respondents of Group B. Thus the respondents of Group B may become online shoppers if online service companies or retailers make and implement the appropriate decisions of marketing.

Conclusions

1. The results of literature analysis show that factors influencing consumer intention to shop online may be summarized into three groups: 1) perceived characteristics of the Internet as a sale channel, 2) consumer characteristics, and 3) characteristics of the product. The most researched factors are barriers and benefits (from the first group) and demographic characteristics (from the second group). Thus these factors' impact on motivation to shop online is known. However, the impact of other factors is inconclusive.
2. The motivation of the respondents who identified themselves as online shoppers is influenced by five dimensions: convenience, product variety, purchase surrounding, information depth and brand. Convenience has the most important effect, information depth and brand dimensions – the least. Thus from this point of view the motivation dimensions of sampled Lithuanians do not differ from Western

countries consumers. Contrary to Western countries research, the influence of demographic characteristics of the respondents on the importance of motivation dimensions was not identified in this study. The significant relationships were indicated between consumer experience in terms of the Internet usage and the brand dimension, and consumer experience of online shopping and the convenience dimension. These motivation dimensions are emphasized by more experienced consumers.

3. The unwillingness to shop online of the respondents who identified themselves as information searchers on the Internet is strengthened by limited abilities to get acquainted with a product/service by means of senses. The limited use of sense in virtual market raises the perceived risk by consumers, especially psychological risk. We think this factor should be investigated deeply, as consumers from Western countries do not highlight it. Another important dimension of demotivation to shop online is consumer priority to social contacts. However, statistical analysis shows that this dimension (together with product/service price) has the least influence in consumer decision-making. The findings indicate that the unwillingness to shop online of information searchers is influenced of respondents' gender (evaluating time and communication, and sense dimensions) and educational level (evaluating risk dimension).

This study had several limitations related to study survey method, study sample and the broad spectrum of products categories what consumers implied filling the questionnaire (we have not specified a particular product). Nevertheless, the major contribution of the study is the list of dimensions influencing Lithuanian consumers' decision to buy or not to buy products/services online and their verification. The research results may be useful for online marketers, online and offline service companies or retailers who seek to offer their products/services over the Internet and are eager to understand the peculiarities of consumers' motivation and behaviour in virtual market space.

References

1. Barkhi, R., & Wallace, L. (2007). The impact of personality type on purchasing decisions in virtual stores. *Information Technology and Management*, 8 (4), 313-330.
2. Chang, M. K., Cheung, W., & Lai, V. S. (2005). Literature derived reference models for the adoption of online shopping. *Information & Management*, 42 (4), 543-559.
3. Chen, L.D., & Tan, J. (2004). Technology adaptation in e-commerce: key determinants of virtual stores acceptance. *European Management Journal*, 22 (1), 74-86.
4. Chiu, Y.B., Lin, C., & Tang, L.L. (2005). Gender differs: assessing a model of online purchase intentions in e-tail service. *International Journal of Service Industry Management*, 16 (5), 416-435.
5. Citrin, A.V., Sprott, D.E., Silverman, S.N., & Stem, D.E. (2000). Adoption of internet shopping: the role of consumer innovativeness. *Industrial Management and Data Systems*, 100 (7), 294-300.
6. Dholakia, R., & Uusitalo, O. (2002). Switching to electronic stores: consumer characteristics and the perception of shopping benefits. *International Journal of Retail & Distribution Management*, 30 (10), 459-469.
7. Fenech, T., & O'Cass, A. (2001). Internet users' adoption of web retailing: user and product dimensions. *Journal of Product and Brand Management*, 10 (6), 361-381.
8. Foucault, B.E., & Scheufele, D.A. (2002). Web vs campus store? Why students buy textbooks online. *Journal of Consumer Marketing*, 19 (5), 409-423.
9. Huang, T., & Oppewal, H. (2006). Why consumers hesitate to shop online? *International Journal of Retail and Distribution Management*, 34 (4/5), 334-353.
10. Joines, J.L., Scherer, C.W., & Scheufele, D.A. (2003). Exploring motivations for consumer web use and their implications for e-commerce. *Journal of Consumer Marketing*, 20 (2), 90-108.
11. Shang, R.A., Chen, Y.C., & Shen, L. (2005). Extrinsic versus intrinsic motivations for consumers to shop on-line. *Information & Management*, 42 (3), 401-413.
12. Sorce, P., Perotti, V., & Widrick, S. (2005). Attitude and age differences in online buying. *International Journal of Retail and Distribution Management*, 33 (2), 122-132.
13. Teo, T. (2001). Demographic and motivation variables associated with Internet usage activities. *Internet Research: Electronic Networking Applications and Policy*, 11 (2), 125-137.
14. Teo, T.S.H., & Yu, Y. (2005). Online buying behavior: a transaction cost economics perspective. *The International Journal of Management Science*, 33 (5), 451-65.
15. To, P., Liao, C., & Lin, T. (2007). Shopping motivations on Internet: a study based on utilitarian and hedonic value. *Technovation*, 27, 774-787.
16. Vijayasarathy, L.R. (2004). Predicting consumer intentions to use on-line shopping: the case of an augmented technology acceptance model. *Information and Management*, 41 (6), 747-762.
17. Zhou, L., Dai L., & Zhang, D (2007). Online shopping acceptance model. *Journal of Electronic Commerce Research*, 8 (1), 41-62.