

인터넷 쇼핑몰에서의 이란 젊은 성인층의 구매 행태 분석

Purchasing Behavior Analysis on Internet Shopping Mall of Iranian Young Adults

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요약

전자상거래는 인터넷상에서 직접적인 접촉을 통해 소비자들이 필요 정보를 검색하고 제품이나 서비스를 구매하는 것을 가능케 한다. 인터넷상의 구매 행위는 실질적인 경험은 아니지만 그림이나 제품 정보 및 광고 등에 근거하여 이루어진다. 본 연구에서는 이란의 전자상거래 시장을 활성화하기 위해, 인터넷 쇼핑몰에서의 젊은 성인층의 구매 행태를 분석하였다. 즉, 인터넷 쇼핑 동기유발과 인터넷 쇼핑몰 선택에 영향을 미치는 요인들을 조사하였으며, 이러한 요인들과 성별, 직업, 연령, 교육정도와 같은 다른 요인들 사이의 상관관계를 밝히기 위해 통계적 가설검증을 수행하였다. 이 결과, 인터넷 쇼핑몰 선택 요인 중의 하나인 '풍부한 제품 정보' 요인에는 남녀 성별 차이가 존재한다는 것과, 쇼핑 동기 유발 요인 중의 하나인 '제품 비교 기능' 요인에도 남녀 차이가 존재한다는 것이 드러났다. 또한, '월 평균 구매 빈도' 요인은 학생과 비학생 간에 차이가 존재하였다. 그리고 일반적으로 이란 젊은 성인층에서는 인터넷 쇼핑몰에서의 상품의 품질을 신뢰하지 않으며 인터넷 쇼핑몰의 안전성에도 만족하지 못하고 있다는 것을 밝혀냈다.

■ 중심어 : | 인터넷 쇼핑 | 쇼핑 동기유발 | 구매 행태 | 이란 |

Abstract

The electronic commerce environment allows customers to search for information and purchase products and services via direct contact with internet markets. Purchasing through the internet is not a real experience of purchasing, but is based on some pictures, information and advertisements of products. To improve E-commerce environment in Iran, purchasing behavior of Iranian young adults in the internet shopping mall is analyzed in this study. The factors which influence the motivation of internet shopping and the selection of internet shopping mall is investigated, and statistical tests were applied between these factors and other variables such as gender, job, age and education. The results of the tests showed that there is a gender difference on one of the shopping mall selection factor (i.e., abundant information about products); also there is a gender difference on the one of the shopping motivation factor (i.e., possibility of comparing products). Besides, there is a job difference (student or non-student) on the factor of 'Purchase frequency per month'. Other facts are also found that Iranian consumers are not sure about a product's quality, so they refuse to buy products such as foods, clothes and other products. Additionally, they are dissatisfied about the safety of internet shopping malls.

■ keyword : | Internet Shopping | Shopping Motivation | Purchasing Behavior | Iran |

I. Introduction

In today's rapidly changing world, technology has replaced the traditional life, and all traditional transaction processes such as buying, selling and banking are accomplished electronically through the internet. Many studies show that in today's competitive world, the company's success is in maintaining sustainable customer relationships[1].

One of the necessities that play an important role in today's tumultuous environment is E-commerce. E-commerce is beneficial for several reasons: For instance, it provides convenient access to products that may otherwise not be accessible, which is particularly important in rural areas. It is an efficient way of entering into transactions, both for consumers and e-retailers. Further, it removes all the borders and obstacles which obstructed traditional tradings [2]. E-commerce is a new method in businesses, in which transferring of information, purchase and sale of goods or services take place through the computer networks and telecommunications such as the internet[3].

In principle, e-commerce can be summarized into six components: seller, customer, supplier, bank, companies offering support services and processes. And the aforementioned processes are the series of activities occurred to achieve an electronic transaction, such as marketing, sales, payment, and providing a warranty[4].

Due to the exponential growth of the internet, the nature and structure of competition in the traditional way of doing business and e-commerce has been changed dramatically. Generally, traditional commerce depends on the frequency of new and old customers buying from them to keep the business running[5]. Unlike the traditional, e-commerce is able to conduct business every day and every time, so electronically

open marketplaces will reduce buyer's cost, as the market expands; the variety of goods available will also expand and there is a direct contact with customers in e-commerce through the internet without any intimidation[6]. Financial transactions on the internet can be more secure than in traditional marketing if it provides insured security for customers[7].

Besides the impressive growth of global e-commerce, the use of e-commerce is ever increasing recently in Iran, especially among young adults, such as university students and graduates, because the young generation in Iran forms almost 70% of Iran's population which is technology-sophisticated, and the penetration rates for internet and smart phones are increasing continuously.

Moreover, in today's situation of Iran after it brought about an agreement with the West over its nuclear program and removal of sanctions in the end of 2015, the future situation of Iran's economy and e-commerce will boost up. The aim of this paper is to analyze the purchasing behavior of Iranian young adults, and to present the fact-findings for improving e-commerce environment in Iran.

The remaining parts of this paper are as follows: section 2 is a brief overview of related works, and section 3 is the main parts of this paper which explains our research framework. And section 4 is analysis results which consist of general statistics and results of hypothesis tests. Finally, conclusions and some suggestions for future works are summarized in section 5.

II. Related Work

According to the importance of customer in today's competitive environment, regarding that the cost of

catching (attracting) new customers is several times higher than the cost of keeping a customer loyal to an organization, cause that examining ways of becoming a loyal customer to the product (goods/ services) has a high preference in market research[8].

Consumer behavior includes mental, emotional and physical activities that people do when select, purchase, use and dispose products and services that satisfy their needs and desires[9]. A consumer purchasing process strongly is influenced by his/her cultural, social, personal and psychological characteristics.

Cultural factors have the most profound impact on consumer behavior among the above mentioned features. These factors consist of culture, subculture, social class and other factors. Consumer behavior is also influenced by social factors as well. These factors are as follows: small groups, families and the role of the consumer in society.

In the other side, buyer decisions are also influenced by personal characteristics, These characteristics include age, life stage, occupation, economic status, lifestyle and personality and self-awareness. Another effective factor is psychological factors. Selection of product/service and purchase of consumers are affected by four major psychological factors, including motivation, perception, learning ability and beliefs[9].

Olfat *et al.* have classified the external stimuli in the form of a six-variable such as product characteristics, the process of shopping, purchase risk, characteristics of customers, customer perception and environmental factors[10]. The results of this study showed that there is a meaningful relationship between the characteristics of the product, the process of shopping, purchase risk, characteristics of customers, customer perception and environmental factors with online shopping.

Ali Sanaei and Munira Salehnia investigated

factors related to the buyer, organization and environment on the internet shopping, and proposed the following model depicted in [Figure 1][11].

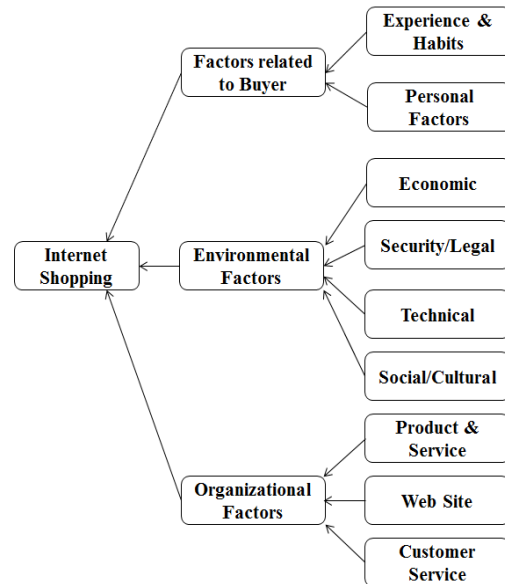


Fig. 1. Influencing Factors on Internet Shopping

In this model, they classified each influencing factor into sub-factors. For example, factors related to buyer consists of experience and habits of buyer and his/her personal characteristics, as seen in [Figure 1].

Chul-Jae Choi identified how atmospherics of web-sites such as graphics, color, menu and link have an effect on consumer's emotion and satisfaction, which in turn have influence on repurchase intention in internet shopping malls[12].

According to the result of Kyung-Hee Kim's study, the images of internet shopping malls were drawn as elements such as product information service, customer service after purchase, atmosphere, convenience, safety and fame, and the most discriminative property was product information service[13].

Chang *et al.* reviewed empirical studies on the antecedents of online shopping, and they classified the

independent variables which affect online shopping usages. Among the classified variables, consumer characteristics consists of education level, gender, income level, age and social status[14].

Other studies have consistently found that gender, income level, education, computer experience, and use of other in-home shopping methods influence a consumer's propensity to shop online[15-19].

III. Analysis Model for Analyzing Purchasing Behavior on Internet Shopping Mall

In order to find the relationship between the characteristics of costumers and major factors that have influence on internet shopping behavior by analyzing the purchasing behavior of young Iranian adults on internet shopping, we established an research model by combining the previous results based on [11] and [14] as depicted in [Figure 2].

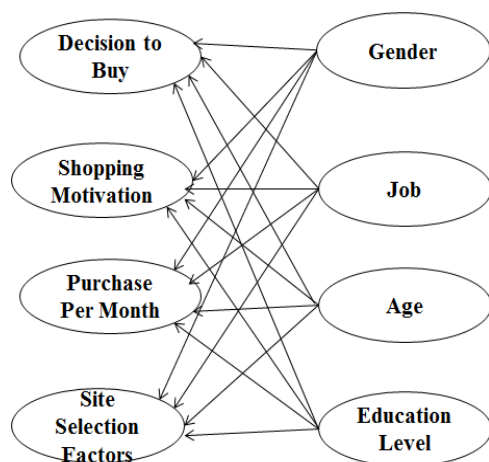


Fig. 2. Research Model

Personal characteristics in [Figure 2] has been selected based on [14], and the other important

influencing factors on internet shopping such as decision to buy and selection of site have been extracted based on sub-factors which related to the buyer, environment and organization factors as shown in [Figure 1][11]. Finally, shopping motivation and purchase per month are newly added as additional influencing factors as depicted in [Figure 2].

Five factors which influence consumer behavior through the internet shopping in our research model are as follows: the decision to buy, shopping motivation, the number of purchases per a month, site selection, and personal factors. In [Figure 2], four factors except personal factor is shown in the left part of figure.

Personal factor is further divided into 4 sub-factors and is shown in the right part of [Figure 2]. As shown in this figure, personal factor is interrelated to other four factors. Detailed classification of each influencing factor is appeared in [Table 1].

For analyzing the purchasing behavior of young Iranian adults on internet shopping based on [Table 2], an electronic questionnaire has been prepared and sent to 200 people via Facebook and email. Finally, 130 recipients sent back their answers in January, 2014.

In the questionnaire, each personal sub-factors was further divided into several categories as shown in [Table 2].

In this research, in order to investigate the correctness of hypothesis, Mann-Whitney and Kruskal-Wallis H tests have been used. Man-Whitney test is a comparative test used for comparing two independence group[20]. Kruskal-Wallis H is an equiponderant of F-test and is used when the number of groups is more than two[21]. Due to the ordinary scale in the answer of questionnaire, the variables of this study are also ordinary variables, these two non-parametric tests method were applied to analyze the questionnaire data.

Table 1. Sub-factors of Each Influencing Factor

Decide to buy	Purch-ase/month	Site selection	Shopping motiva-tion	Person-al factor
Have an internet shopping experience	1 time	Reliability	Easy access to products	Gender
Do not have an internet shopping experience	2 times	attractive-ness	abundant information about products	Job
	3 times	existence of customer testimonial	possibility of comparing products	Age
	4 times	Brand products	save time	Educ-ation
	over 5 times	free membership	save energy	
		suitable information about site	variety of products	
		different ways of ordering	easy exchange	
		well-designed	elimination of middlemen	
		customer encouragement	24 hours purchase	
			possibility of dialog	

Table 2. Category of Personal Sub-factors and its recipients ratio

Gender (%)	Job (%)	Age (%)	Education (%)
- Male (53)	-Student (55)	- Under 20(4.6)	- Ph. D. (9.2)
- Female (47)	-NonStudent (45)	- 20 to 25(41.5)	- Master (38.5)
		- 25 to 30(46.2)	- Bachelor (49.2)
		- 30 to 35(4.6)	- Under-Bachelor (3.1)
		- 35 to 40(2.3)	
		- Above 40(0.8)	

In our study, statistical hypothesis is as follows:

- (1) H0: there is no difference between the two groups.
- (2) H1: there is a difference between the two groups.

Each of the hypothesis was individually tested at the 95% confidence level ($\alpha = 0.05$). To analyze the obtained data, IBM SPSS Statistics 21 and Microsoft EXCEL software were used.

IV. Analysis Results

In this section, analysis results are explained in two parts: 1) general statistics of questionnaire, and 2) the major results of statistical hypothesis.

1. General Statistics

[Table 3] shows the most frequently answered items in the questionnaire survey for each category in [Figure 2].

In our survey, about 53% of participants were men, and 47% of them were women. The lowest frequency of the participant's age is in the range of above 40 years old, and highest frequency is in the range of 25 to 30 years old. About 55 percent of participants were students and 45% of them were non-students (i.e., already graduated people).

Table 3. Most Frequent Answer in Each Category

Category	Most frequently answered item
Gender	Men
Age	25 to 30 years old
Job	Student
Education	Bachelor
Decide to buy	Had an internet shopping experience
Shopping Motivation	Save the time
Purchase/month	1 time
Site Selection	Reliability of web site

According to the obtained data, most of the participants (49.2%) have a bachelor degree or university students, and lowest frequencies are under bachelor's degree and Ph. D. degree. The majority of participants (89.2%) had internet shopping experience, and 10.8 percent of them did not have internet shopping experience. Most of the participants (43.8%) make internet purchases once a month.

Among 10 shopping motivation factors, and 9 site selection factors, it has found that six of them have more impact on internet shopping in view of customers than the other factors. These factors are as

follows: 1) saving time, 2) 24 hours purchasing, 3) easy access of products and services, 4) reliability, 5) existence of customer testimonial, and 6) suitable information about the web site.

To check the variety of products in internet shopping, a list of 20 groups of products were made that customers bought frequently from the internet. Results has shown that participants never buy flowers and gardening accessories, and they always use internet for test exam registration used for learning and university entrance.

2. Result of Statistical Hypothesis

As shown in [Figure 2], the aim of this study is to investigate the relationship between major 4 influencing factors in the left part of [Figure 2] and 4 sub-factors of personal factor in the right part of [Figure 2].

Among all influencing sub-factors on the purchasing in internet shopping mall as shown in [Table 1], 3 sub-factors of shopping motivation and 3 sub-factors of site selection, which have more responses have been chosen for hypothetical test.

As shown in [Figure 3], the overall structure of hypothesis tests are as follows:

- 1) There is a (gender, job, education, age) difference on motivation sub-factor called 'save time'.
- 2) There is a (gender, job, education, age) difference on motivation sub-factor called '24 hours purchase'.
- 3) There is a (gender, job, education, age) difference on motivation sub-factor called 'easy access to products'.
- 4) There is a (gender, job, education, age) difference on site selection sub-factor called 'reliability'.
- 5) There is a (gender, job, education, age) difference on site selection sub-factor called 'existence of customer testimonial'.
- 6) There is a (gender, job, education, age) difference on

site selection sub-factor called 'suitable information about site'.

To test the main hypothesis of our study, 24 tests have been done, and the effect of 4 personal variables such as gender, job, education and age have been investigated on the 6 most frequent answered factors.

The followings show the results of three of them to investigate the gender difference on influencing factors.

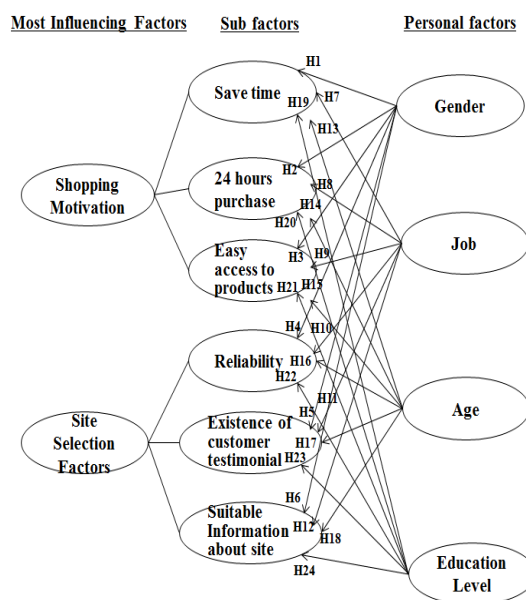


Fig. 3. Structure of Hypothesis Tests

2.1 Hypothesis No.1 (H1 of [Figure 3])

[Table 4] shows the statement of hypothesis 1. For investigating this assumption, Man-Whitney test have been applied.

As shown in [Table 5], since P-value is 0.604 which is greater than $\alpha=0.05$, therefore the assumption H_0 is correct, and it is revealed that there is no gender difference on motivation factor ('save time').

Table 4. Hypothesis No. 1

Hypothesis Name	Hypothesis description
H0	there is no gender (male or female) difference on motivation factor (save time).
H1	there is a gender (male or female) difference on motivation factor (save time)

Table 5. Test Statistics of Hypothesis No. 1

Category	Value of 'time saving' factor
Mann-Whitney U	2010.500
Wilcoxon W	4425.500
Z	-0.519
P-value	0.604

2.2 Hypothesis No.2 (H2 of Figure 3)

[Table 6] shows the statement of hypothesis 2. For investigating this assumption, Man-Whitney test have been applied.

Table 6. Hypothesis No.2

Hypothesis Name	Hypothesis description
H0	there is no gender (male or female) difference on motivation factor (24 hours purchase).
H1	there is a gender (male or female) difference on factor motivation factor (24 hours purchase)

Table 7. Test statistics of Hypothesis No. 2

Category	Value of 'purchase 24 hour' factor
Mann-Whitney U	1890.500
Wilcoxon W	4305.500
Z	-1.147
P-value	0.251

As shown in [Table 7], since P-value is 0.251 which is greater than $\alpha=0.05$, therefore the assumption H0 is correct and it is revealed that there is no gender difference on motivation factor ('24 hours purchase')

2.3 Hypothesis No.3 (H3 of Figure 3)

[Table 8] shows the statement of hypothesis 3. For investigating this assumption, Man-Whitney test have been applied.

As shown in [Table 9], since P-value is 0.774 which is greater than $\alpha=0.05$, therefore the assumption H0 is correct, and it is revealed that there is no gender difference on motivation factor ('easy access to products').

Table 8. Hypothesis No.3

Hypothesis Name	Hypothesis description
H0	there is no gender (male or female) difference on motivation factor (easy access to products).
H1	there is a gender (male or female) difference on factor motivation factor (easy access to products)

Table 9. Test statistics of Hypothesis No. 3

Category	Value of 'Easy access to products' factor
Mann-Whitney U	2047.000
Willcoxon W	4462.000
Z	-0.287
P-value	0.774

The above three hypothesis (H1 ~H3 of [Figure 3]) indicated that gender difference does not exist on three shopping motivation sub-factors. It has also found that there is also no gender difference on three site selection sub factors (H4~H6 of [Figure 3]).

The result of remaining hypothesis showed that there is also no job, education, and age difference on six other most frequent factors (H7~H24 of [Figure 3]).

Because the results of above hypothesis did not show any significant difference, additional 16 tests were conducted to check the effect of personal factor (i.e., gender, job, education, age) on the 'shopping motivation' sub-factors such as possibility of comparing products and abundant information about products, 'purchase per month' factor, and 'decide to buy' factor.

Results showed, there is a gender difference on shopping motivation sub-factors such as 'abundant

information about products', and 'possibility of comparing products', and there is a job (student or non-student) difference on 'purchase per month' factor in the internet shopping mall.

V. Conclusions and Further Research

E-commerce has been around the globe since the mid-90s[22]. Moreover, in recent few years, e-commerce is getting more and more attention from consumers continuously. The purpose of this study is to analyze the purchasing behavior of Iranian young adult in internet shopping mall to improve the e-commerce environment in Iran.

The results of this study revealed that among all hypothesis tests, there is a gender difference on shopping motivation sub-factor called abundant information about products. And there is also a gender difference on shopping motivation sub-factor called 'possibility of comparing products'. Besides, there is a job (student or non-student) difference on 'purchase per month' factor. But the results of other tests did not show any difference between personal factor variables on major affecting factors in internet shopping.

This result also shows that still most respondents of this survey are dissatisfied with the safety of Iran internet markets, and as a result, they are not confident with the usefulness of internet shopping. In terms of products that they usually buy from the internet, it is revealed that respondents are not sure about a product's quality, so they refused to buy products such as foods, clothes and other products.

Additionally, it is found that one of the main reasons for slow growth rate of Iran e-commerce is due to the slow internet speed in Iran. As a result, Iranian consumers, especially young adults, are not willing to choose internet shopping for purchasing

products and services.

As a further research, it is needed to improve this research through investigating cultural and social factors on online shopping, and to make useful recommendations to boost Iran e-commerce environment.

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