Study the Barriers of E-purchase in Chain Stores in Tehran

H. Ahvari and A. Memarnejad

Abstract—**Nowadays, with the latest revolution of technology in information, communications, and media, the need for computerization has been enhanced in most countries .Electronic Commerce is a phenomenon which is arousing enthusiastic interest in industrialized countries and, more recently, in the developing countries. In order to gain the numerous advantages of electronic commerce, issue of investigating the obstacles of electronic commerce has its own importance. In this paper, we aim to understand the obstacles of electronic purchase, which have most priority in Tehran's Chain Stores. For this Purpose, Based on scientific research and literature review, technical, cultural, and legal are identified as a three major barriers for electronic purchase. Thereafter, their validity was examined by expert viewpoints. The result indicates that the most significant priority was technical obstacle like no suitable bandwidth .After that, legal barrier namely no adequate regulation regarding internet delinquency. Finally, the cultural issue was identified the least substantial obstacle.**

Index Terms—**Culture, E-commerce, legal and Technical.**

I. Introduction

The number of Internet users around the world has been gradually increasing and this growth has provided the incentive and the opportunities for global and regional e-commerce [1]. E-commerce is the use of electronic means to interchange information and to accomplish activities and transactions [2]. From this definition, we can see that e-commerce covers many and different areas of economic activity. However, with the Internet different characteristics of the local environment have established a significant level of variation in the adoption and development of e-commerce in various districts of the world. For example, enterprises which employ old computer systems may be resulted in the lost of crucial data [3]. Over the time, various studies have been conducted to identify barriers of e-commerce [3]-[5].These studies have looked at Technical (e.g. telecommunication, transportation system), cultural (e.g. socializing effect of commerce, transactional trust, and attitudes toward debt), and Legal (e.g. Regulatory and tax environment)..The aim of this Research was to study the effect of Technical, cultural, and legal obstacles in e-purchase; in addition, identifying which one has most priority in e-purchase adoption in Tehran's chain stores. The reason for choosing these barriers is that we have found these barriers to be more active and significant with chain stores managers' perspective, compared to other barriers. In fact, although there are facilities for electronic purchase, but there is no adequate purchase through internet. Therefore, chain stores were involved to identify changes that will be required for broader acceptance of e-commerce in general and e-purchase in particular.

II. Methodogoly

In this study, obstacles of e-purchase have been identified by literature review then research questions were prepared that concentrated on the Technical, legal, and cultural barriers. This research carried out a two-stage survey prior to the conduct of a formal survey. A pretest was carried out with a 18-questions questionnaire to e-commerce experts for validating the initial version of the survey questionnaire. In addition, the reliability of this questionnaire was tested by cranbach alpha coefficient that indicated 0.75, which shows high reliability rate. Finally, according to central office of chain store, the number of purchaser per day is 1200 people. As a consequence, the sample comprised 370 people with the following formula, which located in chain stores (Shahrvand) in Tehran between June and August 2010.

$$n = \frac{Nz_{\alpha/2}^2 p(1-p)}{N\varepsilon^2 + Nz_{\alpha/2}^2 p(1-p)}$$

The survey was conducted with participants through 9-item questionnaire. The printed questionnaires were distributed through the e-mail and personal visits. Two particular methods for prioritizing have been applied "Kendal", which Each questionnaire item was scored on their importance from (the least significant=1), (least significant=2), (significant=3), and (4=very significant).In the second method "Normal Standard", to identify score of each barrier, total score from each question was subtracted from group's average and then was divided on group's variance. Negative numbers show low priority and positive number reveal high priority.

III. Result and Discussion

The result showed in technical obstacle, no adopted standard security in Internet space identified as the most important barrier with 40 and 0.19 in Kendal and normal standard method respectively. In addition, no technical ability for confront abusers and broadband internet placed as the second and third significant barriers with (39, 0.15) and (38, 0.10) in both methods. On the other hand, difficulty for developing e-commerce systems places as the least technical obstacle with 26 in Kendal method and -0.41 in normal standard. (Table I, Fig. 1).

TABLE I: TECHNICAL OBSTACLE WITH KENDAL (K) AND NORMAL STANDARD (N.S)

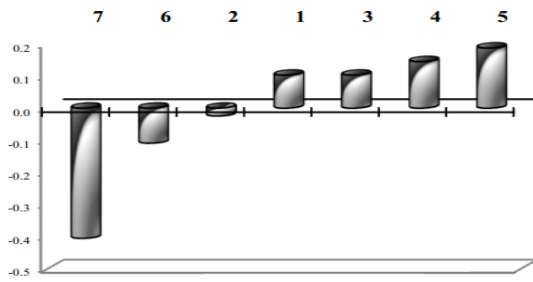|		K	N.S
1	The lack of proper conditions for e-banking	38	0.10
2	The lack of prerequisite hardware	35	-0.02
3	The lack of appropriate broadband Internet	38	0.10
4	No technical ability to confront with abusers	39	0.15
5	No adopted standard security in Internet space	40	0.19
6	No adequate ISP entities	33	-0.11
7	Difficulty to develop e-commerce systems	26	-0.41
Average(35.57)			

Fig. 1. Technical obstacle with Normal Standard method
(Numbers represented the obstacles in the table)

According to Table II which scrutinized cultural obstacles, negative beliefs regarding e-purchase in advertisement was selected as the highest priority with 40 in Kendal 0.30 in normal standard. Moreover, not sufficient awareness regarding e-purchase and no adequate advertisement identified as most cultural barriers with (29, 0.07) and (26,-0.02).However, the use of popular e-purchase pattern in developed countries has been showed -0.10 which has the lowest effect in adoption of e-purchase.

TABLE II: CULTURAL OBSTACLE WITH KENDAL (K) AND NORMAL STANDARD (N.S)

		K	N.S
8	Negative Beliefs regarding e-purchase in advertisement	40	0. 30
9	A lack of adequate information regarding e-purchase among Chain stores and Customers	22	-0.08
10	The deficiency of decision making's culture based on information	22	-0.08
11	The use of popular e-purchase pattern in developed countries	21	-0.10
12	The absent of culture applicable to computer and Information Technology	22	-0.08
13	The Insufficient awareness of managers and people regarding the procedure of purchase	29	0.07
14	The shortcoming of abundant advertisement regarding e-purchase	26	-0.02
Average(25.85)			

Finally, Table III revealed the complexity of e-commerce system's perception as the least barrier with 26 in Kendal and -0.20 in Normal Standard method. On the other hand, the dearth of impetus and sufficient support for managers in addition to the shortage of managers awareness as regards information technology determined as most substantial

barriers with (39,0.22) and (34,0.06) in Kendal and Normal standard respectively.
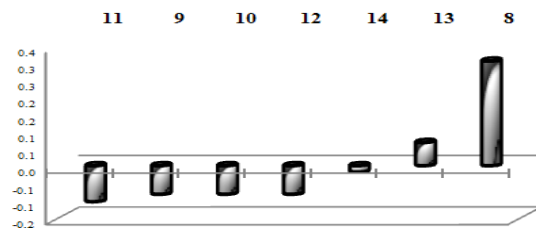

Fig. 2: Cultural obstacle with Normal Standard method
(Numbers represented the obstacles in the table)

TABLE III: LEGAL OBSTACLE WITH KENDAL (K) AND NORMAL STANDARD (N.S)

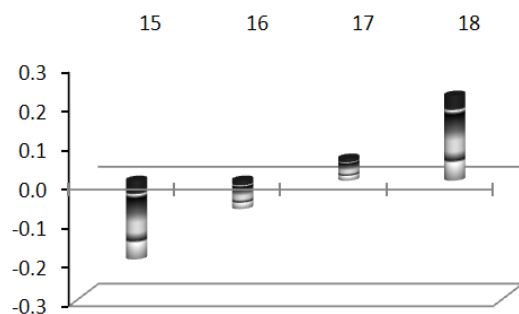|		K	N.S
15	The complexity of e-commerce system's perception	26	-0. 20
16	The feeling of no need for e-purchase in chain stores	30	-0.07
17	The shortage of managers awareness about latest information technology issues	34	0.06
18	The dearth of impetus and sufficient support for managers	39	0.22
Average(32.25)			

Fig. 3. Priority of obstacle with Normal Standard method
(Numbers represented the obstacles in the table

Both Kendal and Normal standard has shown similar results for determining Obstacles priority. Therefore, the validity of questionnaire was accepted by e-commerce experts and the survey was conducted with participants through 9-item questionnaire which resulted in following Table IV.

Table IV revealed that the lack of suitable broadband, no technical ability to confront abusers and no standard security in internet space determined as most important barriers with (999,0.02) , (798,0.003) and (747,-0.0015) in Kendal and normal standard respectively.

IV. CONCLUSION

On the basis of this research, Technical, Legal and cultural are three dimensions that identified e-commerce adoption in chain stores. According to view points of the expert and chain stores purchasers, the most important

TABLE IV: THE PRIORITY OF OBSTACLES WITH KENDAL (K) AND NORMAL STANDARD (N.S) E-PURCHASE

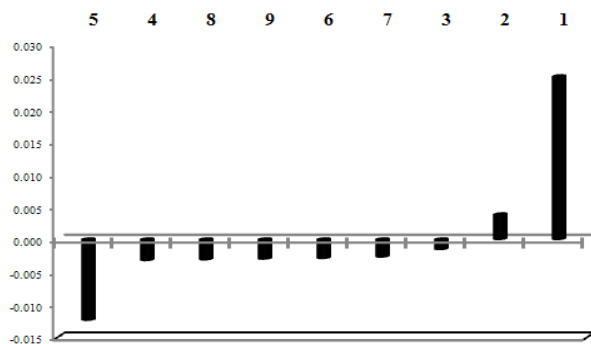|		K	N.S
1	The lack of appropriate broadband in Internet	999	0.02507
2	No technical ability to confront with abusers	798	0.00385
3	No adopted standard security in Internet space	747	-0.00154
4	The lack of proper conditions for e-banking	731	-0.00323
5	Negative Beliefs regarding e-purchase in advertisement	644	-0.01241
6	The Insufficient awareness of managers and people regarding the procedure of purchase	734	-0.00291
7	The shortcoming of abundant advertisement regarding e-purchase	736	-0.00270
8	The dearth of impetus and sufficient support for managers	732	-0.00312
9	The shortage of managers awareness about latest information technology issues	733	-0.00301

Fig. 4. Priority of obstacle with Normal Standard method
(Numbers represented the obstacles in the table)

infrastructures due to abundant budget needed and private sectors are not able to accomplish as well. Furthermore, the new regulations should be codified for preventing internet's crimes. Basis on legal aspect, the most substantial legal elements are: The dearth of impetus and sufficient support for managers, the shortage of managers' awareness about latest information technology issues which new training plan should be accomplished to improve their knowledge as one solution. Finally, for cultural dimension, face to face purchase habit and no adequate needs of electronic purchase is cause of no electronic purchase and this is clear that media training and advertisement needed .Therefore, this is the responsibility of government to invest duo to owner of media in Iran is government.

All in all, according to mentioned barriers as regards electronic purchase, managers of chain stores do not tendency to employ e-commerce in this stage.

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elements as e-purchase barriers are: The lack of appropriate broadband in internet, no technical ability to confront abusers, no adopted standard security in internet space, the lack of proper conditions for e-banking, negative beliefs regarding e-purchase in advertisement. On the technical dimension, these actions proposed to implement for overwhelming obstacles. There is substantial requirement of government's investment for making appropriate

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