

## **Analysis on E-Commerce Usage of SMEs In Developing Countries: Iran And Turkey Practice**

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**ABSTRACT:** *When the development of technology in the last 40 years is viewed, it is seen that the usage of internet in Turkey and the world is increasing day by day. In parallel with this development of internet usage, it is inevitable that electronic commerce activities carried out over the internet are getting more and more popular day by day. The internet has become one of the most effective weapons that commercial-area businesses can take advantage. However, it is observed that especially small and medium sized enterprises (SMEs) in Turkey cannot find enough place in electronic commerce. In this study, the obstacles faced by SMEs in entering electronic trading were examined and factors affecting SMEs' approaches to electronic commercials were tried to be revealed. There are many factors that affect SMEs' approach to electronic trading. We have touched upon the problems that could change SMEs' electronic trading approaches in technical, financial, legal and social areas. Finally, by making a research on SMEs operating in Turkey and Iran, the factors affecting SMEs point of view have tried to put forward. With the results obtained, it is aimed to contribute to the creation of right environment that will enable SMEs to gain more space in the field of electronic commerce.*

**KEY WORD:** *Electronic commerce, SMEs problems*

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### **I. INTRODUCTION AND LITERATURE REVIEW**

Rapid developments in the application and use of the internet create new opportunities in every area especially commercial activities. This has helped many businesses to expand their business activities to reach new customers and offer new opportunities to their existing customers.

Internet can be explained as a computer web that includes millions of computers, tens of thousands of networks and hundreds of millions of users; and at the same time a communication, solidarity, information and experience sharing environment; live, dynamic and large library or study, entertainment and trade center (KORKMAZ, 2002). Once simply a means of accessing information stored across various platforms, the Web is now a widely used medium for communication (Jackson, 1997). In a very short time, this network has gained a great place in the life of the community, almost all work and transactions have been made over the internet. In short, internet has become an indispensable part of modern life.

The increase in the number of users of the internet network, which has a history of approximately 40 years, has led to the emergence of the electronic commerce concept and the use of the internet, which was previously used as a means of communication by e-mail. With the Internet becoming more widespread than other electronic tools, today electronic commerce comes to mind first when trading (Eteş, Eylül-Aralık 2002, s. 45).

There is not a single definition of e-commerce, but electronic commerce is the production, promotion, sales, insurance, distribution and payment of goods and services through computer networks (Eteş, Eylül-Aralık 2002, s. 45) or according to the World Trade Organization (WTO), e-commerce is the production, advertisement, sales and distribution of goods and services through telecommunication networks (Tuthill, 2018, s. 5).

In order to benefit from e-commerce, which has increased the potential of trade, it is seen that new companies have been established to offer online services especially in developing countries. E-commerce bring significant benefits to firms in developing countries (Singh & Tanburn, 2001, as cited in Molla & Heeks, 2007), but SMEs operating in different countries does not show the same performance. These differences in performance are based on various factors, particularly environmental factors such as the provision of a suitable environment for electronic commerce activities.

#### **1.2 Research Objectives**

Establishing the right environment is very important to make it possible for SMEs to carry their business on the internet. Because only then SMEs can use e-commerce and nourish their trade. Aim of our study

is, by investigating SMEs that are operating in Turkey and Iran, to find the right conditions that enhance e-commerce usage of SMEs.

**1.3 Research Methodology and Data Collection**

The data used in this study gathered through a survey sent to 200 SMEs in Turkey and 242 SMEs in Iran. At the end 153 Turkish SMEs and 202 Iranian SMEs answered to our survey. This two country is chosen because they are both a developing country that have everyday growing internet usage and also have different economic systems. Open market economy for Turkey and protected and closed market economy for Iran.

Research is done on SMEs that are active in Turkey and Iran. In this regard there have not any separation made between area or industry or department. This constitutes limitations of our study.

The survey used to gather data is consists of 44 questions. 9 of these questions is aimed to identify the aspects of participating individuals and firms. Remaining questions are targeting SMEs’ point of view on e-commerce activities from different angles.

Survey questions are prepared by using Likert Scale which consists of five scales from “1- Strongly Disagree” to “5- Strongly Agree”. Survey implemented by voluntary participation and surveys transmitted by hand delivery, face to face surveying and via. mail.

Results from abovementioned surveys are codified and evaluated by using SPSS (Statistical Package For Social Sciences) for Windows 17.0.

Since results from surveys does not show normal distribution and variances are not showing homogeneity non-parametric hypothesis tests are used.

Frequency distributions are utilized while evaluating results from participant defining questions.

**Table 1: Education Level of Participants**

Country	Education Level	Number	Percentage (%)
<b>Turkey</b>	Elementary	5	3,3
	High School	27	17,6
	Associate	29	19,0
	Bachelor’s	61	39,9
	Master’s	31	20,3
<b>Iran</b>	Elementary	0	0
	High School	27	13,4
	Associate	6	3,0
	Bachelor’s	130	64,4
	Master’s	39	19,3

Table 1 shows education levels of participants of both Iran and Turkey.

**Table 2: Whether or not Participants have a Website**

Country	Answer	Number	Percentage (%)
<b>Turkey</b>	Yes	145	94,8
	No	8	5,2
<b>Iran</b>	Yes	202	100
	No	0	0

Table 2 shows, whether participant SMEs does have a website or not.

Afterwards, participants from both countries are questioned about whether they find e-commerce easier to implement from traditional trading procedures or not.

**Table 3: Whether Participants find E-commerce easier or not**

Country	Answer	Number	Percentage (%)
<b>Turkey</b>	Strongly Agree	0	0
	Agree	0	0
	Undecided	0	0
	Disagree	0	0
	Strongly Disagree	153	100,0
<b>Iran</b>	Strongly Agree	4	2,0
	Agree	0	0
	Undecided	15	7,4
	Disagree	83	41,1
	Strongly Disagree	100	49,5

**Table 4: Safety of E-commerce**

Country	Answer	Number	Percentage (%)
Turkey	Strongly Agree	27	17,6
	Agree	41	26,8
	Undecided	40	26,1
	Disagree	35	22,9
	Strongly Disagree	10	6,5
Iran	Strongly Agree	0	0
	Agree	0	0
	Undecided	0	0
	Disagree	0	0
	Strongly Disagree	202	100,0

Table 4 shows participants idea on safety of e-commerce is questioned.

**Table 5: E-Commerce’s Share on Participants Income**

Country	Answer	Number	Percentage (%)
Turkey	0-%20	0	0
	%20-%40	116	75,8
	%40-%60	14	9,2
	%60-%80	3	2,0
	%80-%100	20	13,1
Iran	0-%20	22	10,9
	%20-%40	39	19,3
	%40-%60	78	38,6
	%60-%80	52	25,7
	%80-%100	11	5,4

Lastly in Table 5 it is possible to see participants earnings from e-commerce in relation with their income.

**1.4 Analysis**

To evaluate answers given by participants from both Turkey and Iran, t-test is implemented. The t-test is used to determine whether there is a significant difference between the means of two groups. T-test is used on all questions mean except the questions asked especially for identifying participants. By watching Sig (2-tailed) values we determined if differences on avg. of answers of two countries participant is statistically significant.

**Table 6: T-test Results**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Scale Avg.	Equal variances assumed	44,196	,000	15,943	353	,000	,54465	,03416	,47747	,61184
	Equal variances not assumed									

As shown in the Table 6, t-test implemented on averages of scales Sig. (2-tailed) value is below 0,05. This means there is a statistically significant difference between avg. of Turkey’s and Iran’s answers.

After determining the differences between averages of answers is statistically meaningful, as a second step it is possible to evaluate differences in opinions about e-commerce of SMEs operating in Turkey and Iran.

**Table 7: Group Statistics (Country Based)**

	Country	N	Avg.	Std. Dev.	Std. Error Difference
Scale Avg.	Turkey	153	3,8118	,37902	,03064
	Iran	202	3,2672	,26421	,01859

As survey results analyzed is decided that Turkey SMEs (with avg. of 3,81) are approaching more positive to the e-commerce than Iran SMEs (with avg. of 3,27).

### **1.5 Findings and Interpretation**

The paper has identified as a result of survey and analysis, SMEs that are operating in Turkey has more positive idea on e-commerce than SMEs operating in Iran. To understand causes of this result, individual questions (including definitive ones) and economical structure of both countries should be reviewed.

In the process of reviewing individual questions the paper also identified that Iranian participants has more income (as share of total income) from e-commerce than Turkish participants and all of them has website while some of the Turkish participants has not. On the contrary Turkish participants thinks e-commerce operations is easier to implement than traditional trade applications. Also Turkish participants are more optimistic about safety of online activities. As a result it is possible to see that even after Iranian SMEs earnings share on e-commerce is bigger, Turkish SMEs are more hopeful than Iranian SMEs about using online commercial activities.

When reasons after this situation investigated, it was seen that the major difference between two countries is economic structure. Turkish economy is an open market, and banking system is integrated to world banking system, movements of money totally free. On the contrary Iran has a closed economy in which money movements restricted, exchange rates are under interventions of government and even banking system is not connected to the worlds other banks. This structure is the main reason underdevelopment of online trade and e-commerce.

Providing right conditions (both physical and economic) is very important on thriving online commercial economy. As this paper shows the main reason of underdevelopment of Iranian e-commerce is caused by restricted economic environment. However, this situation can be further studied through taking into account regional differences, or sectoral differences and thus pave way for another research.

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