

## Barriers to establish e-business for developing tourism industry: A case study of Kish Island

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### ABSTRACT

This is an empirical study for ranking different barriers on developing e-business in one of the free zones called Kish Island. This Island is located in south part of Iran and it is one of the most beautiful free zones of this country with tremendous opportunities for tourism industry. The proposed study gathers important factors in five different groups of economical, social and cultural, political, technology and software packages. In each group, decision makers determine various influencing factors and after three rounds of brainstorming, analytical hierarchy process is used to rank these factors. Based on the results, the lack of a good infrastructure (0.206), the lack of good culture among ordinary people to use e-businesses (0.205), the lack of good knowledge on internet services among ordinary people (0.204) are some of the most important factors preventing e-business in this region.

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## 1. Introduction

During the past two decades, there have been tremendous changes on the way people do their businesses. Many people prefer to pay their bills using telephone bank, online banking or purchase their products or services using debit or credit cards. People prefer not to carry cash because of the risk involved especially when they travel to other cities or countries. Tourism industry is one of the most important sectors especially for countries with precious history and lots of monuments. Countries with lots of ancient histories have tremendous opportunities to boost their economies though developing tourism industry. However, there are many barriers such as social, economical, technological and political in developing tourism industry. There are many studies to detect barriers for developing e-business (Leonidou, 1999; Walczuch et al., 2000). Phillips and Wright (2009) discussed how e-business could increase the flexibility of organizations through reducing their size and human resources.

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Lee and Kozar (2006) investigated the effect of website quality on e-business success using an analytic hierarchy process (AHP) approach. The study disclosed various relative importance of each website quality factor and priority of alternative websites across e-business domains and between stakeholders and reported that the website with the highest quality produced the highest business performance. Zheng et al. (2004) discussed the impact of cost/benefit of implementing e-businesses.

Kshetri (2007) discussed barriers to e-commerce and competitive business models in developing countries. Kshetri incorporated three groups of feedback systems—economic, sociopolitical and cognitive to provide a simple model of e-commerce barriers in the developing world. The framework examined characteristics of e-business models, which could be successfully employed in developing countries. Howard et al. (2006) presented a comprehensive method on automotive business to business, e-hubs, by exploring motivations and barriers to collaboration and interaction. During the past few years, many organizations are using e-hubs to reduce their costs. They investigated collaboration and interaction by examining four cases of e-hub adoption by vehicle manufacturers and suppliers. They developed a conceptual framework to evaluate the real benefits of electronic applications by revealing firm and industry level motivations and barriers. The framework explained the dissonance between expected and realized benefits, and extended the literature on the barriers. They concluded with recommendations for how best to adopt e-hubs in terms of supply topology, buyer–supplier relationships, leadership, and the threat of from e-hubs.

Soto-Acosta et al. (2008) analyzed e-business value creation from a resource-based perspective. They developed a framework, grounded in the resource-based theory, for assessing e-business value creation. The proposed model considered three relationships including internet resources and e-business value, Internet resources and e-business capabilities, and e-business capabilities and e-business value. They used a sample of 1010 Spanish firms to test their hypotheses and reported that internet resources per se were not positively correlated with e-business value. In addition, although internet resources were not positively correlated to e-business value, they play an essential role in creating e-business capabilities.

The proposed study of this paper performs a comprehensive study to collect all-important factors influencing implementation of e-business for developing tourism industry in Kish Island. The orientation of this paper first proposes the structure of the research in section 2. Section 3 presents the results of our survey and the paper finishes by concluding remarks in section 4.

## **2. The proposed study**

During the last few years, internet has changed world, significantly. The recent changes in Middle East political changes especially in Egypt were partly initiated through different discussions held on social websites. The increase use of internet facilities has many advantages since many organizations prefer to sell their products or services via internet facilities. There are different barriers in developing e-business units in many countries and the present study performed an empirical study on one of free zone areas of Iran called Kish Island. The study gathered different factors through three rounds of brainstorming and Delphi discussions.

Table 1 summarizes some of the most important factors preventing implementation of e-business in this free zone. As the results of our survey in this table show, third item, which is associated with the inadequate support for private organizations to invest in e-business sector and strategic planning from the governmental agencies, has become the most important barrier followed by the relative high infrastructure cost of internet for ordinary people. In addition, it seems that internet usage has become relatively expensive for the people who live in Kish Island and e-business success depends on providing cheaper services for these people. The other important issue is the rapid change on e-business infrastructure, which requires spending significant amount of investment for upgrading

technology. Since Iran is experiencing various economic sanctions, it is virtually impossible to purchase goods and services via international credit cards making it more difficult to sell goods and services in this area.

**Table 1**

**Important economical factors preventing implementation of e-business in Kish Island free zone**

Item	Title	Frequency	Percent
1	High levels of the cost of building infrastructure, satellite, etc.	28	93
2	Inability of private sector to invest in this sector	20	66
3	Inadequate support for private organizations to invest in e-business sector	29	96
4	Unknown rate of return of investment in this sector	19	63
5	The high cost of using internet for ordinary people	27	90
6	The high cost of hiring IT experts as well as doing e-business	17	56
7	The lack of a difference between the regular and e-business prices	15	50
8	Economic sanction	26	86
9	The high cost of upgrading e-business infrastructures	26	86
10	Rapid change in laws and regulations	21	70

The other important barriers are social and cultural factors influencing implementation of e-business for the case study of the proposed study and we have collected seven factors summarized in Table 2.

**Table 2**

**Important social and cultural factors preventing implementation of e-business in Kish Island free zone**

Item	Title	Frequency	Percent
1	The lack of a good culture for using e-business among people	30	100
2	The lack of people's familiarity with the advantages of using e-business	20	66
3	The lack of a mutual trust among people for disclosing their private information	29	96
4	The unknown nature of e-business	22	73
5	Inadequate e-business culture (e.g., training, e-enhancement, etc.) by private and public sectors	25	83
6	Resistance of private and public sectors against rapid changes	23	76
7	The conflict between religious and cultural values with e-business	13	43

As we can observe from the results of Table 2, the lack of a good culture for using e-business among people plays an important role since all decision makers agreed on this item. The other important factor was that people do not trust in e-business system. Our decision makers did not mostly agree on other items. Regulation and political issues are other important factors preventing people to use e-business in this region. Table 3 summarizes details of our survey.

**Table 3**

**Important political factors preventing implementation of e-business in Kish Island free zone**

Item	Title	Frequency	Percent
1	The lack of a good secure internet system and the laws to support them	29	96
2	The sanction imposed on the country	24	80
3	Not adequate policy and strategic planning	30	100
4	The lack of a comprehensive regulation	22	73
5	Filtering website(s) based on political considerations	19	63
6	The lack of a good support and intellectual property laws	23	76
7	The lack of a good standard system and different decision makers	24	80
8	The lack of a proper use of e-business due to weak knowledge	27	90

Based on the results of Table 3, all our decision makers believe government does not provide good support to develop e-business system in this region. The security is the second important factor discouraging people to use e-business, the lack of a sufficient knowledge is the third important factor and the economic sanctions as well as the lack of a good standard are other important factors

preventing people to use e-business systems. The other important groups of demotivating factors are information technology infrastructures, which are summarized in Table 4.

**Table 4**

Important technology factors preventing implementation of e-business in Kish Island free zone

Item	Title	Frequency	Percent
1	All people do not have equal access to internet facilities	28	93
2	The lack of a good infrastructure	30	100
3	The lack of high speed internet facilities	29	96
4	The lack of a good marketing system	22	73
5	Weakness in upgrading security systems	27	90
6	Weakness in local intranet and internet systems	26	86
7	Few numbers of service provider	20	66
8	The lack of a good supervision of proper use of e-business system	23	76

According to the survey, all decision makers blamed weak infrastructure as the most important barriers for implementing e-business. In addition, the lack of a good infrastructure, low internet services and weakness in upgrading security systems are other important factors.

**Table 5**

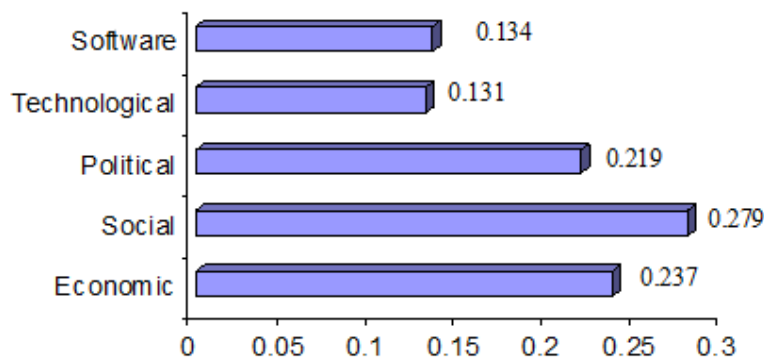
Important software factors preventing implementation of e-business in Kish Island free zone

Item	Title	Frequency	Percent
1	The lack of web specialist and marketing experts	22	73
2	The lack of a good insight on the advantages of e-business	25	83
3	The lack of a good knowledge among people	30	100
4	The weakness on computer security	30	100
5	The weak level of educational knowledge	23	76
6	Weakness in accessing good programmers	22	73
7	Weakness in service provider capabilities	19	63
8	The lack of a good knowledge and proper use of software packages	17	90

According to the results of Table 5, the lacks of good knowledge among people as well as the weakness on computer security are to blame as the most important barriers of e-business.

### 3. The results

In this section, we present details of implementation of analytical hierarchy process (AHP) for ranking five groups of economical, social and cultural, political, technological and software issues (Saaty, 1996). Fig. 1 demonstrates the ranking for each component.

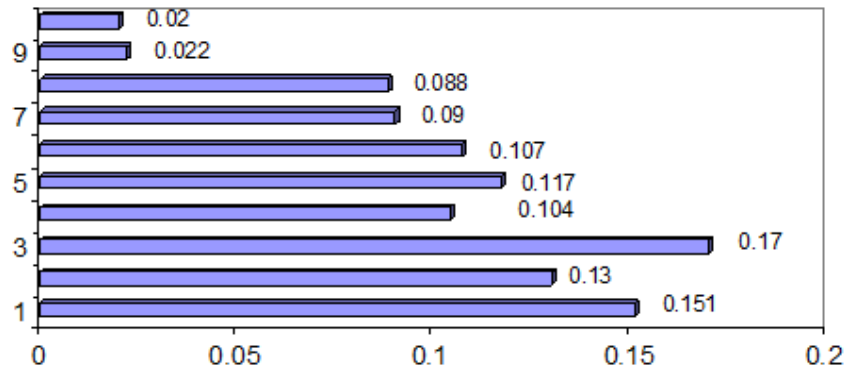


**Fig. 1.** Ranking five groups based on AHP, Consistency ratio < .1

As Fig.1 shows, social factors are the most important item followed by economical and political issues are other important factors. The pairwise comparison of all mentioned components is made in section 2 for each group.

### 3.1. Economical factors

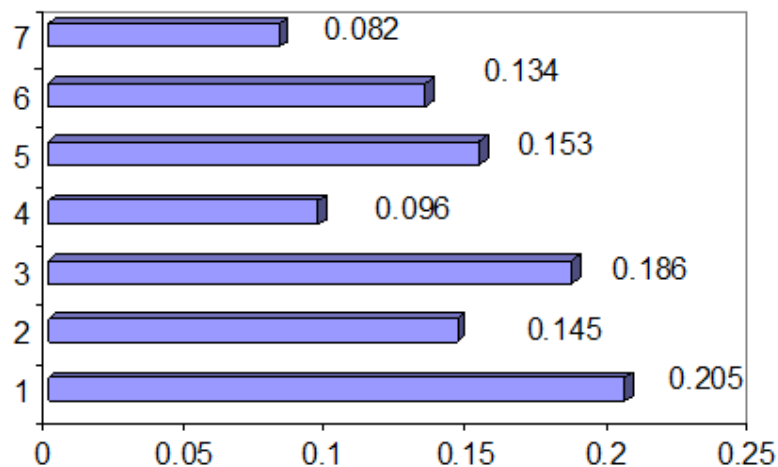
The economical factors play important role on developing e-business and the pairwise comparisons are made among these factors summarized in Fig. 2.



**Fig. 2.** Ranking of economical factors, inconsistency ratio  $<.01$

### 3.2. Social and cultural factors

Social and cultural factors are other important factors playing vital role in developing e-business and the results of pairwise comparison and AHP implementation are shown in Fig 3.



**Fig. 3.** Ranking of social and cultural factors, inconsistency ratio  $<.01$

As the results show, culture plays an important role on bringing success on technology. The other pairwise comparisons have also been performed and the whole procedure of AHP is applied, which yields the relative importance of all factors. Based on the results, the lack of a good infrastructure (0.206), the lack of good culture among ordinary people to use e-businesses (0.205), the lack of good knowledge on internet services among ordinary people (0.204) are the first most important factors on developing e-business. The other important factors are the lack of mutual trust among people (0.186), the inadequate support for private organizations to invest in e-business sector (0.170), the lack of good educational background (0.153), the lack of equal access among all people (0.152), the high cost of upgrading infrastructure (0.151), weak regulation policy (0.150), weak internet services (0.149),

shortage of senior software engineers and the lack of familiarity with e-business advantages are considered as the secondary issues.

#### 4. Conclusion

This paper presented an empirical study for ranking different barriers on developing e-business in one of the free zones called Kish Island, which is one of the most beautiful free zones of this country. The proposed study gathered important factors in five different groups of economical, social and cultural, political, technology and software packages. In each group, decision makers determined various influencing factors and after three rounds of brainstorming, analytical hierarchy process has been used to rank these factors. Based on the results, the lack of a good infrastructure (0.206), the lack of good culture among ordinary people to use e-businesses (0.205), the lack of good knowledge on internet services among ordinary people (0.204) are the first most important factors on developing e-business. The other important issues were the lack of mutual trust among people (0.186), the inadequate policy and strategic planning from the government (0.170), the lack of good educational background (0.153), the lack of equal access among all people (0.152), the high cost of upgrading infrastructure (0.151), weak regulation policy (0.150), weak internet services (0.149), shortage of senior software engineers and the lack of familiarity with e-business advantages are considered as the secondary issues.

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