Analyzing the Use of E-Commerce by Agribusiness Firms in the United Arab Emirates

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Abstract

The Internet has the potential to improve the economic performance of agricultural marketing systems. Since the concept of globalization has become real with the development of the Internet and e-commerce, the number of online users along with buying/selling online increased rapidly in recent years. The total number of internet users in 2007 in the United Arab Emirates (UAE) is estimated at 2.3 million representing 42.90% of total population. The estimated ratio of Internet users to total population grew from 19.6% in 2000 to 42.9 in 2007. The agribusiness industry contributes significantly to the UAE economy. According to a recent estimate, 10% of all businesses in UAE are related to agribusiness. E-commerce has the potential to offer opportunities to agribusiness industry to reduce transaction costs by marketing their products directly to the consumers in the UAE. The main objective of this study was to assess the use of e-commerce by agribusiness firms in UAE. A comprehensive survey was conducted for the agribusiness firms in the Emirate of Abu Dhabi to collect information on the usage of e-commerce.

Preliminary results showed that majority of agribusiness firms (71%) in UAE do not even have a website for their business. The majority of businesses in banking operation (77%) have website, followed by insurance (47%) and other related businesses (29%). The veterinary and agricultural materials and supplies businesses were least having websites. The results also showed that firm size (based on number of employees) have positive relationship with having website and conducting e-commerce operations. A majority of firms with website provided information about their products and prices, accepted orders and payments online. The main reasons for the businesses without website and not having e-commerce activities were no need (32%) and being a small business operation (15%). The results from this study will contribute significantly to understand e-commerce usage by agribusiness firms in the UAE.

Keywords: E-commerce, E-business, Agribusiness, Internet adoption, UAE

Introduction

The globalization of the marketplace through the adoption of the Internet and electronic commerce is evident across all trade sectors. The agribusiness firms around the globe are expected to adapt to the new situation and are forced to change their marketing strategies in order to reap the benefits of the new exchange environment. However, in order for the
agribusiness firms to undertake such projects, minimum infrastructure should be available plus knowledge of the technology across trade partners must be achieved.

The agribusiness industry contributes significantly to the UAE economy. According to a recent estimate, 10% of all businesses in the UAE are related to agribusiness (Agri-Food Program Section, 2007). The UAE is achieving a relatively acceptable Internet use over the past few years as shown in Table 1. The Internet usage rate improved from 19.6% in 2000 to 42.9% in 2007 and projections point to even higher penetration rates in the near future. These figures are for general Internet use and no specifics are available on the adoption of the online services by the agribusiness sector in the UAE.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Users</th>
<th>Population</th>
<th>% Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>735,000</td>
<td>3,750,054</td>
<td>19.6%</td>
</tr>
<tr>
<td>2003</td>
<td>1,110,200</td>
<td>3,750,054</td>
<td>29.6%</td>
</tr>
<tr>
<td>2005</td>
<td>1,300,000</td>
<td>3,750,054</td>
<td>34.7%</td>
</tr>
<tr>
<td>2007</td>
<td>2,300,000</td>
<td>4,621,399</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

Source: Internet World Stats (2007)

Table 1. UAE's Internet Growth and Population Statistics

The main objective of this paper is to conduct a preliminary investigation of the agribusiness sector's and assess the use of e-commerce as a marketing strategy in the Emirate of Abu Dhabi; and identify the levels of acceptance by the different types of agribusinesses of e-commerce; and the identify the main factors that might affect their decisions to utilize the technology.

Data

A random sample of Abu Dhabi's agribusiness establishments were selected from the telephone directory and a listing of agribusinesses from Al-Ain Agricultural Sector. A questionnaire was constructed to solicit information from agribusinesses regarding their activities related to e-commerce, if any. 210 agribusinesses were contacted by telephone and 121 complete questionnaires were used for the purpose of data analysis in this study (58% success rate). 16% of the numbers called did not answer while 24% were wrong numbers due to changing telephone numbers or going out of business or other reasons. 2% of the sample chose not to participate in the survey.

The first part of the questionnaire focused on whether the enterprise utilizes the internet through a web site for its transactions, and if yes, the type of services is available ranging from product listings to accepting online payments. The second group of questions elicited information on each firm's attributes such as number of employees and type of business.
Results

The sample revealed the composition of the sector by type of agribusiness. 27.27% of businesses engaged in trading agricultural inputs and supplies, 15.70% provided veterinary services, 12.39% were insurance brokers, 7.45% were banking services establishments and 37.19% were other agribusinesses including transportation services, irrigation companies, advertising agencies and landscaping firms.

The majority of agribusinesses (71%) did not have a website. The main reasons for the businesses without website and not having e-commerce activities were no need (32%) and being a small business operation (15%). However, the type of business seemed to influence the decision of management on having a website or not. The banking firms seem to utilize e-commerce the most among the agribusiness establishments where 77% of them have a website. Firms that provide the veterinary services seem the least to employ the online services with only 10.5% of its establishments having a website. The percentages of other agribusinesses having a website ranged from 47% for insurance brokerage firms to 18% for firms selling agricultural supplies and materials.

From Table 2, it can be seen that the banking sector utilizes the online services more than the other agribusiness firms which was probably due to the availability of information technology staff on hand and the ability to reach the customers relatively easier than other businesses through mail and telephone services and then get the customers interested in e-commerce as another more effective and efficient way of doing business. Due to the variety of businesses included in the agricultural material and supplies and other agribusinesses, it was difficult to draw conclusions on which types of businesses exactly adopted and benefited from the e-commerce modules.

A simple model of linear regression was utilized to test for the significance of factors affecting the firm's decision to have a website. The type of business was found insignificant while the

<table>
<thead>
<tr>
<th>Type of agribusiness</th>
<th>% of sample</th>
<th>% having website</th>
<th>% accepting online order</th>
<th>% accepting online payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural materials and supplies</td>
<td>27.27</td>
<td>18</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Veterinary services</td>
<td>15.70</td>
<td>10.5</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Insurance brokers</td>
<td>12.39</td>
<td>47</td>
<td>57</td>
<td>0</td>
</tr>
<tr>
<td>Banking services</td>
<td>7.45</td>
<td>77</td>
<td>71</td>
<td>57</td>
</tr>
<tr>
<td>Other</td>
<td>37.19</td>
<td>29</td>
<td>67</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Table 2. Summary of sample attributes.
number of employees, proxy variable capturing size of firm, was found significant. More analyses needed using limited dependent variable techniques.

**Discussion**

Similar studies have been performed in different parts of the world. For example, in the US, the rapid growth in the share of farmers with Internet access, from 13% in 1997 to 43% in 2001, has fueled firms' interest in e-commerce. By 1999, most agricultural input firms used company websites but fewer engaged in e-commerce (Henderson, et al., 2004). In 2002, 55% of Irish agribusinesses had a website while large multi-position businesses were most likely to have developed a website. 71% of respondents reported the main obstacle in the way of continued e-business growth as the customers not ready for e-business. 69% of respondents blamed lack of technological expertise for not having a website (Brandon, et al., 2003). A study carried out in the Emilia-Romagna region of Italy showed a low level of implementation of e-commerce and a limited variety of adoption strategies. Web-based direct selling was found to be confined to market niches.

This study showed that agribusiness firms in the UAE are mostly in the beginning stages of adopting e-commerce marketing strategies since only 29% of the firms surveyed had websites. The banking sector leads the sector in the adoption process while company size is the factor mostly determining whether the firm has a website or not.

**References**


