Entrepreneurial Willingness to incorporate e-Commerce practices among SMEs in UAE

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ABSTRACT

Lack of e-commerce practices among the potential enterprises particularly of those categorized as SMEs is quite visible in UAE both from the practical observation and from the relevant literature as well. This is considered quite contrasting to the situations and practices of the SMEs operated in some of the developed and developing economies outside UAE, where Internet based selling and buying of consumers are more predominant than conventional shopping. This gap in the lack of e-commerce technology adoption possibilities among the potential enterprises is viewed in two dimensions such as ability of the enterprises to incorporate e-commerce technology and the willingness of the entrepreneurs to incorporate the same. Hence, the research propositions were set-forth based on these dimensions and accordingly the objectives were taken-up for the present study. The enterprises and the corresponding entrepreneurs operating from the Emirate of Dubai in UAE constitute the sample for the present work. A sample size of 80 supported by two independent multiple regression models provides the basis of findings in the work. More specifically, its identified that e-commerce inclusion possibilities among the enterprises depend on certain critical factors of enterprise operations and the implications were discussed accordingly in this work.

Key Words: Enterprise operations, Internet based Buying, Internet based selling, e-transaction security, SMEs and Technology adoption.

1.0 Introduction

The global e-commerce in the world has been on rise ever since the observations have started in late 90s. This is mainly due to the growing economic potentials of various Internet based transactions causing drastic changes in the operations of the various enterprises in developed and even among the developing countries. The availability of technology at cheap cost and the associated benefits have made many enterprises in the developed countries to adopt e-commerce in very short span of time and this is not the case with developing blocks of the world. In the case of UAE, extensive e-commerce application can be found in the large business sectors but not in Small and Medium sized enterprises (SMEs). “For small and medium enterprises some concerns with e-commerce revolve around the fear of eroding their existing customer base and the technical issues arising out of lack of computer expertise and the cost of the necessary hardware and software” (Joseph, 2002). Although SMEs constitute the larger chunk of the business enterprises in many countries, the non-adoption of e-commerce in these business enterprises could also be due to the lack of clarity in understanding the basics of e-commerce.

The financial implication of non adoption of e-commerce is well quantified and reported in various studies and estimates. “The estimate for United States percentage savings in the cost of inputs that results from migrating from traditional procurement systems to e-commerce varies from 2 percent for coal to 39 percent for electronic components” (Goldman Sachs, 1999). In similar lines, its estimated that the GDP in developed countries could raise by 5 percent in another 10 years (Brooks and Wahjai, 2000). “Thus, there is now a growing trend among the economies to strongly agree that B2B and B2C e-commerce can have positive impact on productivity and growth in the developed countries” (UNCTAD, 2004). However, it is also strongly felt that the some of the developing nations
of the word, particularly countries like UAE have not seized the full potential and advantages of e-commerce yet.

1.1 Research Problem
The transformation of the traditional pattern of business towards the e-commerce applications necessitates the fulfillment of prerequisites concerning human and technology resources. In this context, Ihlstrom and Nilsson (2003) stated that SMEs should implement information technology supported activities before approaching e-commerce strategies. The already implemented Information Technology (IT) - supported activities in the enterprise are required to be re-evaluated in terms of transitional process from traditional to Internet based selling activities. The transition process requires identification of shortcomings in the existing available set of activities in the enterprise in terms of IT support and e-commerce adoption. The need for the present study arises due to the under utilization of e-commerce possibilities in various entrepreneurial operations in UAE. From a brief review of the cited literatures as is on the second of the present study, there is not a single comprehensive and intensive study, touching upon various aspects of e-commerce adoption in SMEs operations of UAE context. However, this is quite understandable from the stand point that the concepts like e-commerce and its applications in SMEs are relatively new phenomena both in the gamut of the entire world and UAE in particular. Thus, the issues like non-adoption of e-commerce applications in many of the potential SMEs in UAE is quite understandable and hence, gains significance with the present study. Paucity of data and well established earlier studies in similar lines have also been factors that contribute to the need to undertake the present study. Also, the SME operations in UAE have not attracted the attention of the researchers to the significant extent till this date.

1.2 Measuring willingness to incorporate e-Commerce practices among SMEs
In order to measure the e-commerce adoption possibilities into the operations of the enterprises that are classified as SMEs, the measurement schemes such as Availability of computers, Number of workers, Number of branches of operations and entrepreneurial knowledge on e-commerce systems have been incorporated in the work. These factors forming the basis for such measurement were identified based on the established studies in similar lines and the details are provided as follows,

(a) Availability of computers in the enterprise
The availability of computers assisting the operations of the enterprise is considered to be an important step towards adopting e-commerce based systems by the enterprise. Since the post adoption process necessitates the dynamic role of computer usage in terms of order tracking and inventory tracking in the enterprise. In this regard Ihlstrom and Nilson(2003) reports that the organizations have to reassess their IT enables process before stepping their effort towards the adoption of more advanced technologies like e-commerce systems.

(b) Number of workers in the enterprise
One of the major metrics indicating the size of the enterprise is the number of workers constituting various process and service components. The general observed trend in this regard is the influence of size of the enterprise on its technology adoption schemes. Also, more workers in the enterprise is an indication of more process set available in the enterprise and thus its viewed as an important factor deciding the adoption of e-commerce technology in the operations. Many studies in this context have reported the significant level of dependency for the factor ‘Technology adoption’ with that of the capacity of the organization (Blau 1970, Mileti 1977 and Rushing 1980).

(c) Number of Branches of operations
Another major factor indicating the size of operations of any enterprise is nothing but its actual number of branches. Normally the enterprises with more number of branches tend to centralize their operation giving scope for more IT adoption. Thus, more number of branches of operation gives larger scope for e-commerce adoption among the enterprises. The conceptual works on centralization, decentralization and re-centralizations issues by Dearden(1967;1966) provides enough basis to
consider this factor as one of the major factors that could well contribute to e-commerce adoption of the enterprises

(c) **Entrepreneurial knowledge on e-Com systems**

The shortcomings in the entrepreneurial knowledge on e-commerce business models are considered as one major reason for its non adoption among the potential enterprises. This includes both the technical and operational knowledge of the systems or the combination of both. In this regard, Mc-Nichol Williams (2001) provided the list of variables that constitute the measuring scheme for e-commerce awareness among the entrepreneurs of Australian SMEs. In a contrasting observation in this regard Ricupero (2004) mentions that careful analysis is required among the entrepreneurs to successfully incorporate e-commerce systems into their operations.

### 2.0 **Studies on enterprises towards e-Commerce adoption**

The viability of various Internet based e-commerce initiative are required to be assessed before investing money in such ventures and portfolio planning approach is needed carry out such assessments. This is mainly due to the limitations of e-fulfillment component of the Internet channel of selling both from the perspectives of the customers in B2C models and the enterprises in B2B models. Certain study (Tjan, 2001) in this regard has provided the complete scheme map for the Internet portfolio planning in comparison with the classical portfolio planning for the various enterprises underpinning the similarities between ‘Internet portfolio-planning’ and ‘classical portfolio-planning’.

The fact that Internet offers tremendous opportunities to redesign the way in which the businesses are done is often misrepresented or misquoted resulting in unrealistic expectations both from the view point of consumers and the entrepreneurs. In this context, Porter (2001) stated that the time has come to take a clear view of the Internet. Hence, he opined that Internet technology provides better opportunities for companies to establish distinctive strategic positioning than the previous generations of information technology. According to him the companies have no other choice but to deploy Internet in their businesses to stay competitive in the market. However, he observes that the differentiating point is just not the deployment of Internet technologies but how they are deployed in relevance to the Industry structure. Through this work, the complete framework for industry structures that are likely to be affected because of the Internet deployment was provided with an emphasis that the future of Internet competition revolves around the factors like comparative operational effectiveness of the firm and the strategic positioning.

With regard to the organizational participation on the web-based e-markets in Indian context, Rajesh Mahajan and Sunil Kumar (2004) reported that 90 percent of the Industrial units located in Punjab are making use of Internet for various utilities ranging from e-mail usage to exploring e-markets. More specifically they reported that 50 percent of the Industrial units are processing orders through Internet on day-to-day basis. In a survey conducted in 400 industrial units, they reported that the large industries are exploring e-market more vibrantly than the small industries. Further, they classified the organizational participation in e-markets into 3 stages namely (i) stage of exploration, (ii) stage of expertise and (iii) the stage of passiveness. The major financial issue related to the investment on e-commerce project for an enterprise is nothing but the calculation of return on investment (ROI). In this context, Manual and Raisinghani (2003) developed a framework towards the calculation of ROI on e-commerce projects. According to them many e-commerce ventures of 90s were undertaken in a sense of urgency with no real consideration of the economic value associated with the investment. In this context, they reported that 50 percent of the e-commerce ventures in U.S alone were attempted with no clear ROI calculations. Also, they stated that the major reason identified for the non-compliance of ROI calculations in the e-commerce projects are mainly due to the low cost of the technologies in U.S markets. Further, they provided the matrix scheme for mapping the change in the process flow of the firms’ due to the e-commerce ventures.

#### 2.1 **Studies on e-Commerce adoption of the organizations**

The major factor affecting the technology adoption of the enterprise is not the technical capabilities of the enterprises in line with the technology to be adopted. “The four categories of factors
that can influence adoption of a new technology by SME include characteristics of the firm, competitiveness and management strategies of the firm, influence of internal and external parties on the adoption decision process and the characteristics of new technology adopted” (Lefebvre et al. 1991).

Organizational readiness is another major factor that significantly affects Internet adoption besides the knowledge of the entrepreneurs on IT. A model on SMEs Internet adoption by Jenni et al. (2001) provides three factors that significantly affects the Internet adoption by small firms namely (i) perceived benefits, (ii) organizational readiness and (iii) the external pressure. In the context of the above model, some of the perceived benefits by the organizations include the capability of the Internet as the effective communication tool besides its e-commerce potentials. Further, the model emphasis that the organizational readiness is to be assessed in terms of available number of IT and non-IT professionals the level of IT usage in the organization. Some of the factors of external pressure considered in the above model include expectations of the consumers and the competitor’s participation in the e-commerce.

The fact that Internet offers tremendous opportunities to redesign the way in which the businesses are done is often misrepresented or misquoted resulting in unrealistic expectations both from the view point of consumers and the entrepreneurs. In this context, Porter’s (2001) model emphasizes that Internet technology provides better opportunities for companies to establish distinctive strategic positioning than the previous generations of information technology. Through this model it is well explained that the companies have no other choice but to deploy Internet in their businesses to stay competitive in the market. The complete scheme map for the Internet portfolio planning in comparison with the classical portfolio planning for the various enterprises was provided in a study where, certain similarities between ‘Internet portfolio-planning’ and ‘classical portfolio-planning’ was provided (Tjan, 2001). Further, the above work highlighted the importance of assessing viability of various Internet based e-commerce initiatives before investing resources in such ventures.

During the process of transition towards web based selling strategies, all the enterprises cross any one or combination of five different stages of maturity model developed by Grant (1999). Further this work highlights the consultancy guide for every stage of the firm’s maturity to move to the next stage on the maturity scheme. The knowledge of the entrepreneur on e-commerce business models is considered as the major factor determining the willingness of the organization to adopt e-commerce. In an attempt to identify the world’s best practices in e-commerce training, a study was conducted among the SMEs, training providers and even among some of the government agencies in Australia Mcnicol Williams (2001), which reports that the stages of developing involvement in e-commerce for Australian SMEs is very similar to that of SMEs in other countries like Canada, Ireland, United Kingdom, United States and Europe. Also, it’s found that Australian SMEs face difficulties in e-commerce adoption with an exception of availing e-mail transactions due to the combination of management and technical issues. The special pre-requisites concerning human and technology resources make SMEs an interesting research focus when looking at the transformation process toward e-commerce. In a study conducted by Ihlstrom and Nilsson (2003) with the objective of generating informative and preparatory activities enabling e-Commerce transformation, seven Swedish SMEs were investigated towards designing, implementing, and evaluating IT supported activities aiding transformation process with five stage maturity model Grant (1999) on enterprise e-commerce adoption process. Besides providing the basis for generating informative and preparatory activities, this work provides imperatives on internal competence development activities towards e-Commerce adoption process.

**3.0 Details of the objectives and the Methodology of implementation**

The existing scenario of less adoption of e-commerce possibilities in various entrepreneurial operations in UAE particularly with reference to the SMEs is viewed in two dimensions such as entrepreneurial willingness to offer Internet channel and the firm’s existing ability in this regard. Both these propositions give scope for the research problem taken-up and hence, this work is approached with following objectives.
1. Identifying possibilities of incorporating B2C e-commerce activity in various enterprises.

2. Measuring entrepreneurial willingness towards the e-commerce adoption.

The following are null hypotheses corresponding to the above set objectives.

h1. The e-commerce adoption possibilities of the enterprises depend on the critical functional parameters.

h2. Entrepreneurial willingness to adopt e-commerce in their operations depends on their awareness on such systems.

This research work has been implemented with a descriptive research design comprising the validated a questionnaire employed for primary data collection process. Further the dependency among the various independent and dependent variables were tested with appropriate models assumed suitable in this regard. Each of the multiple regression models has been incorporated with variables based on the well established studies of relevant nature.

3.1 The survey instrument details

The questionnaires deployed for collecting the primary data for the present study comprise 22 variables and these variables were classified broadly into two major categories such as general information of the enterprise and the entrepreneurial e-commerce awareness. Three out of these 22 variables are without any scaling and another 2 items are based on dual options with remaining 17 items measured on 5 point scale.

3.2 Pre-testing and Sampling Details

The pretesting for the survey instrument was done by conducting a pilot survey among 33 entrepreneurs. The result obtained through this pre-testing validates the research instrument and hence, the survey instrument was used for collecting the primary data. The Cronbach alphas and the composite reliability measures were used as the reliability index which was found to be above 0.6 recommended by Nunnally (1978). The multi scale items for measuring the three dimensions of e-Commerce awareness are also found to be well above the recommended value of 0.6. The survey for present work was carried out in the Emirate of Dubai in UAE among the various entrepreneurs of SMEs representing segments of the business like retailing, service and manufacturing. All the respondents of the survey were kept informed about the objective of this study and this has ensured fullest cooperation in the data collection process. Thus, the rejection rate of the filled up response is less than 15 percent of the total distributed questionnaire of 90. Hence, the final sample size constituting this work is kept at 80. This kind of sampling procedure is categorized under judgment method and the same is considered for the present work. The primary data for this work was collected between April 2011 and May 2011. The sample size comprising 80 entrepreneurs of various SMEs is taken to be the relevant size in the present work.
3.3 Details of the research models

(a) Enterprise e-Commerce adoption possibilities

Exhibit 1: Enterprise e-Commerce adoption possibilities and critical fictional parameters

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees working in the enterprise</td>
<td>Enterprise e-adoption possibilities</td>
</tr>
<tr>
<td>Capacity of operation in terms of number of Branches</td>
<td></td>
</tr>
<tr>
<td>Number of computer systems used in the enterprise</td>
<td></td>
</tr>
</tbody>
</table>

The research model for the study on e-commerce adoption of the enterprise is shown in the Exhibit – 1, in which the e-commerce adoption process of the enterprise is considered as the function of critical operational parameters enterprise. Normally the size of the enterprise is measured in terms of number of employees and its capacity of operations. In this context, many studies have confirmed the relationship between these factors (Blau, 1970; Mileti, 1977; and Rushing, 1980). Also, Gupta and Sushil (1993) reported the existence of the cyclic relationship between the organization structure and its Information systems structure. Since the empirical values corresponding to the Information systems structure of the enterprises are treated as the measure of their smooth functioning the availability of computers in the organization is also viewed as the influencing factor for e-commerce adoption. In this context, many studies have confirmed the increase in efficiency of operations of the enterprise due to the computer usage (Dearden, 1966; Murdick 1977; Hammer, 1990, and Lucas, Jr. 1994). The mathematical representations of the research model provided in the exhibit-1 is assumed in the equation 1 as follows

\[ M_S = \alpha_0 + \alpha_1 N_W + \alpha_2 D_N + \alpha_3 C_N + \mu \] (1)

Where,
- \( M_S \): e-Commerce adoption possibilities of the enterprise
- \( N_W \): Number of employees in the enterprise
- \( D_N \): Capacity of the operation in terms of number of branches
- \( C_N \): Number of computer systems used in the enterprise
- \( \alpha_1, \alpha_2, \alpha_3 \): Regression coefficients
- \( \alpha_0 \): Constant
- \( \mu \): Standard error

(b) Entrepreneur Willingness to Incorporate e-commerce in their operations

The regression model corresponding to the exhibit-2 is provided in the equation 2. “The entrepreneurial willingness to adopt e-commerce is viewed as the function of their e-Commerce awareness characterized by three major dimensions such as basic understanding, product concerns and online payment concerns”. (Liao and Cheung, 2001)
Exhibit 2: Entrepreneurial personal factors on adoption willingness

Independent variables

Dependent variable

W = α₀ + α₁ E₁ + α₂ E₂ + α₃ E₃ + μ

Where,

W : Entrepreneurial Willingness to adopt e-Commerce
E₁ : Entrepreneurs basic understanding on e-Commerce operations.
E₂ : Entrepreneurial product and service related for e-commerce.
E₃ : Entrepreneurial concerns on online payment systems

α₁, α₂ & α₃ : Regression coefficients
α₀ : Constant
μ : Standard error

4.0 Results and Discussions

(a) e-commerce adoption possibilities

The e-commerce adoption possibility, which has got a cyclic relationship with the organizational structure, is assumed as the function of organizational size and the availability of computers in the organization. Many studies in this context have reported the significant level of dependency for the factor ‘Technology adoption’ with that of the capacity of the organization (Blau 1970, Mileti 1977 and Rushing 1980). Also the usage of computers is viewed in terms of efficiency contributors for the organizational functioning. Many studies in this context have reported increase in the efficiency of operation of the enterprises with the usage of computers (Dearden, 1966; Murdick 1977; Hammer, 1990; and Lucas, Jr. 1994). As far as the enterprises considered in the study are concerned, the variables corresponding to the size of the enterprise are ‘number of employees’ and ‘Number of Branches of operation’. Thus, these variables along the variable ‘number of computer systems’ in the enterprise are considered as the group of functional parameters in the equation 1. The empirical output of this regression model is provided in table 1, in which the F value of 100.015 is found to be significant at 5 percent level.
Table 1: Empirical output of the regression on hypothesis-1

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Un Standardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Adjusted R Square</th>
<th>F</th>
<th>h1 supported at 5 percent level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>α</td>
<td>α</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>13.375</td>
<td>6.385</td>
<td>2.095*</td>
<td>0.503*</td>
<td>100.015*</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td>0.844</td>
<td>0.102</td>
<td>0.364</td>
<td>8.293*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Branches of operation</td>
<td>2.614</td>
<td>0.319</td>
<td>0.361</td>
<td>8.195*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of computer systems</td>
<td>1.406</td>
<td>0.263</td>
<td>0.240</td>
<td>5.343*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*Significant at 5 percent level. Dependent Variable: e-commerce adoption possibilities)

Hence, it is inferred that the e-commerce adoption possibilities of the enterprise has got significant dependency at 5 percent level with the group of functional parameters like the number of workers, number of branches of operations and the number of computer systems used in the enterprise. Thus the hypothesis-1, taken up for the present work is accepted at 5 percent level of significance. Further, the adjusted R square value of 0.503 from the table-1 indicates that 50.3 percent of e-Commerce adoption possibilities among the enterprises significantly defined by the operational parameters of the enterprises such as Number of employees, Number of Branches of operation, Number of computer systems. Also, the “t” values of 8.293, 8.195 and 5.343 corresponding to each one of the above considered operational parameters are found to be having significant effects on the model conceived. More specifically the Number of employees working in the enterprise is found to be having significant superior effects on the e-commerce adoption possibilities with a highest t value of 8.293.Similarly, the number of Branches operated by the enterprises causes significant good effects on the e-commerce adoption possibilities with a next higher t value of 8.195.The t value of 5.343 obtained for Number of computer systems in routine operation of the enterprise significantly causes considerable effects on the e-commerce adoption possibilities. In this context, Rajmohan and Panchanatham (2000) reported the cyclic relationship between the efficiency of internal operations of the firms and the usage of computer systems in the firm. Since e-com adoption possibility is the measure of smooth internal operations of the enterprise, the results of this regression model confirms the earlier reported findings. Also, the availability and the number of computer systems in an enterprise is considered to be one of the critical functional parameters that can support the transition of the enterprise from traditional activities to e-commerce based activities. In this context, Rajmohan and Panchanatham (2000) stated that computers are the important gateway for the individuals and the enterprises to participate in the emerging economic potentials like e-commerce activities.
Entrepreneurial willingness to incorporate e-commerce

Table 2: Empirical output of the test of h–2

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Un Standardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Adj. R Square</th>
<th>F</th>
<th>h2 supported at 5 percent level</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.209</td>
<td>0.148</td>
<td>8.149</td>
<td>0.423</td>
<td>120.166</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Basic Understanding</td>
<td>0.176</td>
<td>0.026</td>
<td>0.251</td>
<td>6.719</td>
<td>0.423</td>
<td>120.166</td>
<td></td>
</tr>
<tr>
<td>Perceived Product Suitability</td>
<td>0.159</td>
<td>0.021</td>
<td>0.294</td>
<td>7.698</td>
<td>0.423</td>
<td>120.166</td>
<td></td>
</tr>
<tr>
<td>Perceived Transaction Safety</td>
<td>0.334</td>
<td>0.039</td>
<td>0.326</td>
<td>8.561</td>
<td>0.423</td>
<td>120.166</td>
<td></td>
</tr>
</tbody>
</table>

(*Significant at 5 percent level. Dependent Variable: Willingness to Incorporate e-Commerce)

From the results of the regression model shown in Table 2, a significant level of dependency is established between the entrepreneurial willingness to adopt e-commerce and entrepreneurial e-commerce awareness. From the results, it can be inferred that the F value of 120.166 is found to be significant at 5 percent level and hence, the hypothesis 2 is accepted. Further, the adjusted R square value of 0.423 from the table-2 indicates that 42.3 percent of the entrepreneurial willingness to adopt e-commerce is determined by three dimension of their e-Commerce awareness such as basic understanding, perceived product suitability and perceived transaction safety. Also, the “t” values of 6.719, 7.698 and 8.561 corresponding to each one of the above considered operational parameters are found to be having significant effects on the model conceived. The higher t value of 8.561 obtained for perceived Transaction safety indicates that the perceived transaction safety among the entrepreneurs causes superior significant levels dependency on their willingness to adopt e-commerce systems. Also, the perceived product suitability with a t value of 7.698 causes significant effects on entrepreneurial willingness to adopt ecommerce systems.

5.0 Implications of the findings with concluding remarks

The major outcome of this work confirmed through the regression models conceptualized includes confirmation of the two major propositions taken-up for the study. The first proposition of e-commerce adoption possibilities in the enterprises considered is found to be significantly dependent on the critical functional parameters of the enterprises. The second proposition of willingness of the entrepreneurs to adopt e-commerce in their routine enterprise operations is also found to be significantly dependent on all the three dimensions e-Commerce awareness factors. These outcomes and the corresponding implications are discussed as follows,
1. The e-commerce adoption possibilities among the enterprises considered in the study is significantly affected by the size of the enterprise and the computer usage in the routine functioning. In this context, a significant level of dependency is found between e-commerce adoption possibilities of the enterprises and its functional parameters of the size such as number of workers and the number of branches with which the enterprise is operated. This finding sets-up a case for IT and e-commerce solution providers to look for opportunities among the enterprises with larger number of workforce with multiple branches of operation. Also, the enterprises with larger number of computer usage in their functioning place them in the position to incorporate e-commerce systems quicker than the enterprises with lesser number of computer usage in their functioning. This dependency identified through this work also confirms the earlier reported finding in this regard (Grant, 1999). In particular, this confirms that the stage of maturity of the enterprise is one important factor enabling the e-commerce adoption process. Thus, this finding can be generalized that the enterprises choosing to operate with computers in their routine functioning are placed a step ahead of the enterprise without computer usage in terms of e-commerce adoption possibilities.

2. The entrepreneurial willingness to incorporate e-commerce systems in the routine operations of the enterprise is significantly dependent on the basic understanding of the systems. This finding also confirms the previously reported finding in this regard (Thong and Yap, 1995). This finding is justifiable from the view point that the proper executive support for the e-commerce adoption project can be fetched only under the circumstance when the entrepreneurial decision maker understands the system well. This also sets-up a case for IT and e-commerce solution providers towards convincing the entrepreneurial managers ensuring their understanding of the systems before taking up the adoption measures.

3. Another major factor identified to be significantly dependent on the entrepreneurial willingness to adopt e-commerce is nothing but the product concern and this is really an area which requires critical analysis of the real opportunities and the potential pitfalls. In this regard, the entrepreneurial product related concern affecting their willingness to adopt revolves on the nature of the product they are dealing with. In specific, the product like fresh food items and those items with higher perishable nature are not considered to be in comfortable propositions to be sold over Internet. However, the enterprises selling the services are considered to be the favorable entities in terms of e-commerce adoption in their functioning. Also, the enterprises dealing with the tangible goods that are not perishable in nature are considered to be the next favorable entities in terms of e-commerce adoption. However, these enterprises have to handle the complexities associated with the e-fulfillment or the logistics component of the system more precisely than the enterprises selling services.

4. The transaction security concerns of the entrepreneurs are identified to be negatively dependent on their willingness to adopt e-commerce systems in their operations. Despite the availability of Secured Electronic Transactions (SET), and the increasing digital transactions this is really a concern area that is required to be addressed. This finding confirms the previously reported findings in this regard (Mcnicol Williams, 2001). However, the availability of the facilities to handle the cyber crime in a region would have profound impact on the transaction security concerns among the public. This phenomenon is viewed as the problem from the generic perspective with macro dimensional concerns. However, lesser transactional concerns are viewed as the real facilitators for growing volumes of online businesses throughout the world.

6.0 References