



Innovation Culture and Mechanisms and Their Effects on Developing E-Business

(Case study of insurance companies of Mashhad City)

Tahereh Nabizadeh

PHD Student of International Marketing Management
Alzahra University of Tehran
Mashhad, Iran
thrh nabizadeh@yahoo.com

Mehdi Zarepour

MA Student of Management Information Systems
Azad University of Mashhad
Mashhad, Iran
Cazador_man2008@yahoo.com

Abstract

Innovation is a cornerstone of preserving market dynamism. E-business is a kind of innovation form, making more customers accessible in different times and places for the organizations. Every innovation needs to be adopted by the society. This study aims to use an innovation model as a work frame and e-business as an innovation form to examine the effects of innovation on e-business development. This survey is of analytic type using descriptive methods with applied goals. First, innovation culture as an effective factor on innovation elements is discussed. Then, innovation elements are examined based on Rogers's theory; finally, e-business development mechanisms will be studied. The final result is a conceptual model, showing the relations between culture and innovation elements as well as e-business. This model was analyzed by AMOS software, confirming that organizational and individual innovation impacts e-business development via education.

Key words: Rogers's innovation theory, e-business development, e-business development mechanisms, innovation culture

I. INTRODUCTION (HEADING 1)

E-business is a methodology which meets the needs of the organizations and customers, reducing the costs and improving the quality of the products and delivery speed. Also, it enables the organizations to search and manage organizational information for supporting decision-makings [11]. Organizations can connect together by e-business,

improving production and delivery capacities as well as competitive advantages at global level. Of course, these opportunities accompany some risks which threaten e-business development with difficulty in a definite time span and budget [18]. In complicated industries, to keep customers, higher levels of innovation need to be provided. If the organizations can't be as innovative as their rivals, they will lose their efficiency and market share, being eliminated from competition arenas (Watson et al 2008). So, innovation risk is an important challenge on the way of e-business. From the other hand, risk reduction in e-business development is manageable by innovative actions at all stages. This study aims to shed light on these issues in detail.

2. Literature

2.1. Value creation resources in e-business

In recent years, the advent of e-business has led to many business opportunities for delivering huge data and automatizing most common operations. Value results from human interactions (human resources) and structural resources like research and development (Abdorrahim et al. 2008). Amit and Zott (2001) introduced a value creation model including efficiency, complementarities, lock-in, and novelty elements as follows:

1. *Efficiency*. The first value creation resource in e-business is efficiency. This element is closely related to *Cost Transfer Theory* in a way that increasing transactions' efficiency reduces allocated costs to the interactions (Amit and Zott 2001). Cost reduction can be achieved by decreasing research expenses,



information sharing costs between producer and supplier, and economic production (Abdorrahim et al 2008). Amit and Zott (2001) emphasized that Internet can significantly decrease haggling and customer research costs. Thus, e-business decreases information sharing costs, increasing efficiency.

2. *Complementarities*. A key element in value creation is Complementarities (Abdorrahim et al 2008). It is produced when the asset of the products, but, not individual ones, create value (Amit and Zott 2001). It describes horizontal levels of producers, surrounding value creation system, from concentrated linear value on maximizing the benefits of relations to maximizing final customer. Complementarities impact demands 'curve by the number of completed services and products (Kristianson and Mesli 2003).

3. *Lock-in*. Lock-in is defined as the tendency of the customer to business with other producers (2001). In other words, it refers to the customers' unwillingness toward changing interaction channels. Customer lock-in depends on the methods of designing a website in a way that prevents the customers from changing it with other websites (Abdorrahim et al. 2008).

4. *Novelty*. This element is highly correlated with value creation and market share increase (Kristian and Mesli 2001). It is the ability of creating original ideas in e-business which leads to the superiority in the related business. This concept will be discussed in the next sections.

2.2. E-innovation

Innovation is an idea, concept, or action which is offered by an individual or organization [Rogers, 1995]. Innovation refers to performing jobs in a new way, not done before in technical and specific areas [Pease, 2005]. Parry (2007) defines innovation as the process of introducing a new product or improved services at organizational or managerial levels, changing business strategies, policies, and structures to improve performance. Innovation can be regarded based on the nature of the changes in new products, services, processes, and markets; or the novelty extent which may be developmental or radical with destructive effects on the organization [Talebi, 2005]. From the other hand, Internet has created many opportunities for e-innovation in the industries, leading to new business models. To understand e-innovation, innovation classification of Smith and Becket (2004) can be concerned which is developmental, not imposing destructive risks on the business [Ngai et al 2005]. Generally, e-innovation refers to producing new products and services, changing work processes, creating new customers, and increasing added value to reduced costs.

Table 1. Innovation definitions

Author	Year	Definition
Abdul Rahim	2008	Innovation is a suggested theory or designed concept leading to knowledge development, creating techniques for making a scientific basis for a new concept.
Parry	2007	Innovation is introducing new or improved products or processes.
Zaoc	2006	Innovation is new products, services, or process creation including new applications. New forms of organizations and markets and human resource skills are regarded as innovation.
Deuter. D. Krueger	2007	Innovation is not what organizations search to improve. It is improving what the customers search i.e. processes and cost reduction.

2.3. Innovation types

According to Smith and Becket (2004), there are 5 types of innovation: 1. Innovation in extant patterns of products, processes, and organization, 2. Innovation as minor changes in producing products in reflection to customers' needs, 3. Innovation in developmental form and overactive, not simply a response to customers' needs (e.g. producing a high quality product for the present or new customers or new knowledge applications in the organization), 4. Innovation in adoptive form, focused on developing new general products and optimizing current processes (in such case, better competitive advantages are created and technological improvements are aimed), 5. Out-of-the box innovation- changes in products, definitions, and styles, starting with new actors. This type, known as strategic innovation provides new customers with better organizational status. Strategic innovation has a strong effect on the processes of organizational production.

2.3. Innovation types

According to Smith and Becket (2004), there are 5 types of innovation: 1. Innovation in extant patterns of products, processes, and organization, 2. Innovation as minor changes in producing products in reflection to customers' needs, 3. Innovation in developmental form and overactive, not simply a response to customers' needs (e.g. producing a high quality product for the present or new customers or new knowledge applications in the organization), 4. Innovation in adoptive form, focused on developing new general products and



optimizing current processes (in such case, better competitive advantages are created and technological improvements are aimed), 5. Out-of-the box innovation- changes in products, definitions, and styles, starting with new actors. This type, known as strategic innovation provides new customers with better organizational status. Strategic innovation has a strong effect on the processes of organizational production.

Table 2. Innovation classifications

Author	Topics	Explanations
Cooper (1998)	Radical Developmental	Radical innovation is revolutionary, breaking the borders in organizations with main innovations. Developmental innovations create small changes to develop organizational products and services.
Green et al (1995)	Product-oriented Process-oriented	Product-oriented innovation focuses on the changes in final products ; process-oriented Innovation emphasizes the changes in production steps.
Abdul Rahim et al (2008)	Organizational Technical	Technical innovation deals with adopting a new idea based on organizational outputs. Technical innovation refers to the changes in policies and resource allocation.
Smith & Becket (2004)	Minor Procedural Developmental Adoptive Out-of-the-box	Innovation in the existent patterns of products, product processes; overactive innovation; acceptance of new products, creating new products, definitions, and styles

2.4. Innovation culture

Innovation can't be autonomous and needs some stimulators like organizational strategies, structures, culture, and networks [Talebi 2005]. Innovation culture is a prerequisite for e-business in technical fields, identified by individual and organizational levels in the following order:

2.4.1. *Individual innovation culture* refers to the personal qualities of all people involved in manufacturing new products. It refers to personal attitudes in creating a new idea or product in the organization [Wu Jianlin 2010]. According to Rogers's theory, personal differences can potentially impact the intentions of the people during shopping. In on-line shopping, since the customers can't touch and physically contact with the products, they face more risks. So, e-business innovations should regard this point. Individual innovation also refers to the individual capabilities of the personnel to meet the specified needs of the customers outside the organization.

2.4.2. *Organizational innovation culture* refers to the successful processes and networks, managerial developments, and technological improvements in the organization. It accelerates e-business development, responsiveness to market needs, and closeness to market changes [Xu Qingrui 2001].

2.5. Innovation theory of Rogers

Generally, there are different models for innovation in previous literature, dealing with the reasons and ways of innovation acceptance at individual and organizational levels. Rooted in social psychology, *Theory of Reasoned Action*, *Motivational Model*, and *Theory of Planned Behavior* have been introduced for innovation [Baskerville et al 2001]. According to Rogers's Theory (1995), 5 features for technical innovation adoption including relative advantage, compatibility, complexity, trainability, and observe ability lead to more success in its exertion [Chen 2004].

2.5.1. *Relative advantage* refers to the extent to which innovation exceeds the idea which has been replaced. It is mostly an economic advantage, prestige, or social position. Mansfield(1968) identifies economic advantage as a key determinant in innovation distribution and spread. Havard (1977) suggests that managers should follow competitive advantages to create or gain economic values; and to develop e-business, products' improvement, managerial controls, and quality and flexibility increase are essential [Chen 2004].

2.5.2. *Compatibility* refers to a level of innovation, inconsistent with present values, past experiences, and future needs. Innovation can agree or disagree with the cultural and social values of the society, previous ideas, or customer needs [Chen 2004]. Compatibility depends on the knowledge and familiarity with innovation and its processes [Rogers 1995].

2.5.3. *Complexity* refers to a level of difficulty in perceiving innovation. Some innovations can be adopted easily; while the others are difficult to be exerted. Ease of application is determinant in this regard (Cooper 1997). Doer (1988) recognized the difficulty of using home-banking as the cause for its failure. Also, according to Rogers, a customer's perception is the most important factor in innovation's acceptability.

2.5.4. *Trainability* refers to the possibility of testing and experiencing an innovation. New ideas which are dividable can be better adopted [Chen 2004].

2.5.5. *Observe ability* refers to the possibility of seeing the results of innovation. Some innovation results are explicit while some may be implicit.



These 5 qualities can explain 49 -87% of distribution at innovation adoption rate [Chen 2004].

2.6. The concept of E-business

E-business refers to the concept of buying, selling, transferring, and transacting products, services, or information via computer networks like Internet. In another definition, it is a form of business relations that connects different sections electronically, transacting information between different sections [Ratnasingam 2001]. E-business is a general term for a wide range of software and systems which facilitates information search, interactions' management, credit investigation, credit allocation, direct payments, reporting, accounts' management, and etc. in Internet. So, in specific term, it includes e-business interactions and in broad term it contains all applications and business activities in virtual world.

2.7. E-business development mechanisms from innovation aspect

Many studies have examined e-business development mechanisms. A study in Australia and New Zealand showed that the lack of security is the main barrier on the way of e-business development [Ratnasingam 2001]. Lee and Rong (2001) mentioned different factors as the barriers of e-business development like knowledge shortage, society's expectations from IT and owners' innovation in business management. But, from innovation aspect, e-business development mechanisms can be educational system, research and development system, trust development culture. Educational system refers to the awareness level of the people as an important factor in e-business development. So, the societies should equip educational and training system, supporting innovation in the society. The need to e-business should also be enhanced among the people in the society [Chen 2002]. Although many small and intermediate organizations are not capable of developing e-business, universities and academic institutes can promote e-business mechanisms [Chen 2002]. Trust development culture is also important. Researchers believe that just physical factors don't lead to e-business development; social capital is also effective. Increasing learning and allocating social capital has a significant effect on e-business development [Chen 2002].

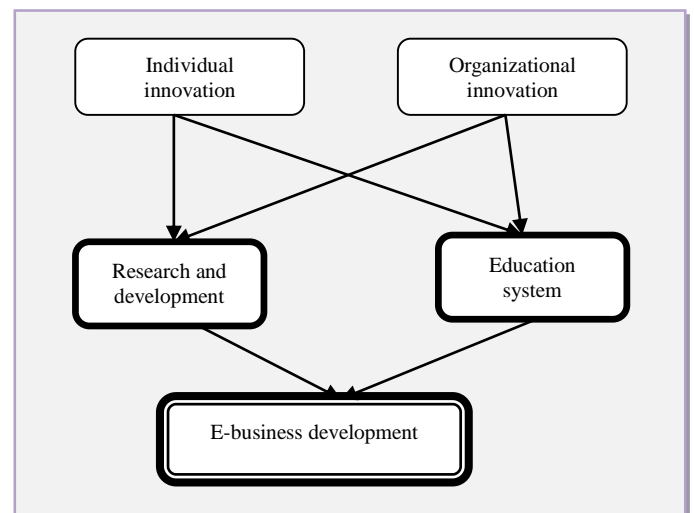
2.8. The correlation between e-business and innovation

Innovation theory of Rogers is widely used in e-business development discussions. E-business is similar with information technology; but, since it has an interorganizational aspect; it is different with other forms of innovation [Chong 2001]. Rogers differentiates between adoption and diffusion; the former refers to people's intention to use innovation and the latter refers to their intention to refuse or leave it. So, while discussing adoption, using e-business should seem vital and inevitable for the users [Rogers 1983]. Thus, the most important factor in e-business success is users' satisfaction [Chong 2001, Crum 1996, Thong et al 1998]. In application stage, when the person uses e-business technology and innovation turns into practice from theory, adoption issue is highlighted. Thus, for the success of e-business, its application should be easy, observable, repeatable, and testable for the users.

3. Conceptual model

Based on the previous studies and mentioned points, a conceptual model is represented in which culture is introduced as a basis for innovation development in the society. Fixed and internalized believes and norms, promulgating innovation can be a basis for e-business development as an IT product. This culture can reveal itself at individual and organizational levels. Innovation theory of Rogers includes 5 qualities of relative advantage, compatibility, complexity, trainability, and observe ability. E-business innovations, cable to adopt with society, lead to e-business development via trust culture, education, and research and development system. The conceptual model of the study is shown in Fig. 1.

Fig 1. Conceptual model





1. Organizational innovations have a positive and significant effect on educational system.
2. Individual innovation has a positive and significant effect on research and development system.
3. Educational system has a positive and significant effect on e-business development.
4. Research and development system has a positive and significant effect on e-business development via educational system.
5. Organizational innovation has a positive and significant effect on e-business development via educational system.
6. Organizational innovation has a positive and significant effect on e-business development via research and development system.
7. Individual innovation has a positive and significant effect on e-business development via educational system.
8. Individual innovation has a positive and significant effect on e-business development via research and development system.

4. Methodology

This survey is of analytic type, using descriptive methods with applied goals. Based on the wide studies on Internet advertisements, the youth adopt themselves with Internet sooner than the olds. Moreover, based on demographic studies, most Internet users are educated people. So, the statistical population of this study included all the staff of insurance companies in Mashhad City. To select the sample, random sampling method was used. Using Cochran formula, the sample size of 185 people was achieved.

4.2. Validity and consistency test

To gather data, a researcher-made questionnaire was used whose face validity was confirmed based on the ideas of the experts. To measure its consistency, Chronbach Alpha coefficient was calculated. Generally, for the questionnaire related to psychological tests, Chronbach Alpha value over 0.7 is acceptable. For this study, Alpha value of 0.986 was achieved, confirming its high consistency (Table. 1).

Table 3. Chronbach Alpha coefficients

Variable	Chronbach Alpha
Organizational culture	۰/۹۶۸۱
Individual culture	۰/۹۶۶۶
Education	۰/۹۳۵۲
Research & development	۰/۹۱۶۲
E-business	۰/۹۶۴۸

5. Results

Using Cochran formula at 0.05% error level, the sample size of 180 people was achieved. Based on Table 2, 3, and 4, the sample consists of 53.9% men and 46.1% women. 36.7% of the sample members are 35-50 years old. 41.7% have Bachelor degrees.

Table 4. Demographic data of sample members

Valid	Responses	Frequency	Percent	Cumulative Percent
gender	female	83	46.1	46.1
	male	97	53.9	100
Education level	diploma	28	15.6	15.6
	BA	75	41.7	77.8
	Master	40	22.2	100
Age	Less than 24	33	11	11
	26-35	81	27	38
	35-50	119	39.7	77.7
	55-60	67	22.3	98.9
	Above 60	2	1.1	100

6. Discussion

To analyze data, a two-stage structural equations modeling, was used. First, measurement model fitness was tested using confirmatory factor analysis; then, a path analysis was used to analyze the hypotheses. A structural equation modeling developed the correlations between latent and observable variables. Here, latent variables were main variables. Observable variables were the questions in the questionnaire, used as a variable in the analysis software of AMOS and final model.

6.1. Measurement model fitness



To analyze data, first measurement model fitness for each hypothesis was tested using some indices (GFI, CMIN, and hypothesis were calculated, regarding *P* values. Measurement model fitness indices are shown in Table 6.

Table 6. Measurement model fitness indices

Index	Organizational innovation model	Individual innovation model	Educational system model	Research & development model	E-business model
DF	3	2	5	5	2
CMIN	6.486	4.238	.312	1.550	3.57
P	.098	.543	.231	.670	.106
CMIN/DF	2.162	2.119	.062	.310	1.785
GFI	.911	.913	.904	.969	.978
RMR	.043	.072	.061	.049	.004
CFI	.975	.982	.954	.914	.932
RMSEA	.053	.048	.007	.010	.007

Acceptable value for the index of CFI. GFI is 0.9 (Hooman 2006). In this study, the resulted value for this index is 0.9, confirming good fitness of the model. Residue matrix can be used for evaluating good fitness of model (prepared model) and minor fitness (defined parameter for 2 variables) (Carter 2006). RMR is a quantity for all mentioned models in the table, showing low error and acceptable fitness of the model. RMSEA is RMR based on residue matrix analysis. Acceptable models for this index should be under 0.1 (Scheriber 2006). In this study, the values for this index were under 0.1, confirming good fitness of the model. On this basis, total good fitness indices for the theoretical models of the hypotheses are acceptable. Chi-square index for the models of organizational innovation, individual innovation, e-business model, research and development is above 0.05, revealing its good fitness. It can be concluded that theoretical models of the hypotheses is acceptable. Then, regression coefficients and factor analysis should be examined.

According to Fig 2, individual innovation has no positive and significant correlation with research and development (regression coefficient = -0.082); but, individual innovation has positive and significant correlation with education (regression coefficient = 0.102), and research and development (regression coefficient = 0.636). Organizational innovation has positive and significant correlation with education (regression coefficient = 0.914), and e-business development (regression coefficient = 0.119). Also, individual innovation has positive and significant correlation with e-business development (regression coefficient = 0.427), and organizational innovation is positively correlated with e-business development (regression coefficient = 0.242) via education. In this

CFI). Then, regression analysis and factor loads for each

conceptual model, value is regarded as a variable, correlated with Internet advertisements. Results is shown in Table 7.

		Regression coefficient	t	sig	result
research and development	individual innovation	.082	1.923	.054	rejected
education	individual innovation	.102	2.806	.005	confirmed
education	Organizational innovation	.914	15.846	.003	confirmed
research and development	Organizational innovation	.867	15.743	.019	confirmed
e-business	research and development	.045	.603	.547	rejected
e-business	education	.265	2.621	.009	confirmed
e-business	Organizational innovation	.632	5.034	.021	confirmed
e-business	individual innovation	.102	2.880	.004	confirmed

Table 7. Data analysis of direct hypotheses

Table 8. Indirect hypotheses analysis

Paths	Regression coefficient	Regression coefficient	Result
Organizational innovation on e-business via education	0.242	0.242	confirmed
Organizational innovation on e-business via research and development	0.039	0.039	rejected
individual innovation on e-business via education	0.427	0.427	confirmed
individual innovation on e-business via research and development	0.004	0.004	rejected

Conclusion

In the present world, economic structure of the world tends to knowledge orientation for the advent of new information technologies [Chen 2004]. All industries are influenced by information technologies and e-business. Thus, understanding e-business mechanisms receives great importance [Parry 2007]. To develop e-business, embedding innovation culture at all social sections is necessary to turn innovative ideas into practice. For this purpose, factors like research and development, education system, and trust can be concerned. Innovation adoption is the first step. According to Rogers (1995), 5 factors of compatibility, complexity, innovation advantage, observability, and testability should be regarded in the case of innovation at individual and organizational levels to lead to its better



adoption and e-business development. Then the conceptual model of the study was represented and the hypotheses were tested. Testing and confirming H1, it was concluded that innovation at organizational level leads to staff awareness to e-business mechanisms. Also, since the mediating role of education was confirmed between organizational innovation and e-business development, it was concluded that using educational techniques in the organizations can impact organizational innovation and e-business development. Testing other hypotheses also confirmed the mediating role of education in the correlation between individual innovation and e-business development, revealing that continuous trainings with the aim of improving innovative capacities of the staff lead to e-business development. Thus, education is a key in e-business development. From the other hand, the effect of research and development on e-business and its mediation role between individual and organizational innovation and e-business development were rejected. The reason for such result can be incorrect and impractical interactions of universities with the organizations. Moreover, mere emphasis on the theoretical aspects of researches and not their practical sides can be another reason for rejection of this hypothesis. Therefore, more emphasis should be put on the operational and practical aspects of the researches to make them optimal. According to the achieved results of this study, it can be suggested that for making research and development mechanisms efficient, some bonus or rewards can be offered to the staff to motivate them in representing innovative ideas and strategies. Also, establishing an individual or group education system which familiarizes the staff with e-business applications can highly impact e-business development. Creating educational classes and programs for stimulating the staff to learn new rather than traditional technologies can play a key role in e-business development.

References

Abdul Rahim, R., Jais, J., Daud, S. 2008. " Business Innovation through Value Creation in E-business". *Global Electronic Commerce*, 1-12.

Amit, R. and Zott, C. 2001. " Value creation in e-business". *Strategic Management Journal*, Vol. 22, No. 6/7, 493-520.

Baskerville, R & Pries-Heje, J. 2001. "A multiple-theory analysis of a diffusion of information adoption

for entrepreneurs ", *Journal of Computer Information System*, 44-57.

Bagozzi, R. P., & Yi, Y. 1988. " On the evaluation of structural equation model". *Journal of Academy of Marketing Science*, 16(1), 74-94.

Carter, R. L. 2006. " Solutions for missing data in structural equation modeling". Marymount University. *Research & Practice in Assessment*, 1(1), 1-6.

Chen, Jin. 2002. "Innovation, learning and e-commerce". *Research Center for Innovation & Management*, Zhejiang University, Hangzhou, China.

Chen, Shiouyu. 2004. " Adoption of electronic commerce by SMEs of Taiwan". *Electronic Commerce Studies*, 1, 19-34.

Chong, S., Pervan, G. 2001. " Implementation success of internet-based electronic commerce for small- and medium-sized enterprises in Australia". *14th International Bled Electronic Commerce Conference*. Bled, Slovenia.

Cooper, R.J. 1998. "A multidimensional approach to the adoption of innovation", *Management Decision*. 8, 493-502.

Crum, M. (Premkumar, G., Ramamurthy, K). 1996. "An assessment of motor carrier adoption, use, and satisfaction with EDI", *Transportation Journal*, summer.

Delone, W.H. 1988. "Determinants of success for computer usage in small business". *MIS Quarterly*, 1,51-61.

Deuter, D, Krueger, S. 2007. "Innovate and sell digitally: marketing opportunities and risks", 1-24.

Fox, J. 2002. " Structural equation models". Appendix to an R and S-PLUS Companion to Applied Regression.

Green, S., Gavin, M., & Aiman-Smith, L. 1995. "Assessing a multidimensional measure of radical technological innovation", *IEEE Transactions on Engineering Management*, Vol. 42, No. 3, 203-214.



Hooman, H. 2007. "structural equation modeling using lisrel software". Samt Publication. 1st Ed.

Lee, J.W., Runge, J. 2001. "Adoption of information technology in small business: Testing drivers of computer sciences", 1, 1-8.

Mansell, R. 2001. "Digital opportunities and the missing link for developing countries". *Oxford Review Economic Policy*, Vol. 17, No. 2, 282–295.

Nachira, F. 2002. "Towards a network of digital business ecosystems fostering the local development". European Commission" - *Information Society Technology* [Online], Available: http://www.digitalecosystem.org/html/repository/dbe_discussionpaper.pdf.

Ngai, E.W.T.(Wat, F.K.T). 2005. "Fuzzy decision support system for risk analysis in e-commerce development". *Decision Support Systems*, 40, 235– 255.

Palmer A. (Mc Cole P). 2000. "The role of electronic commerce in creating virtual tourism destination marketing organizations". *International Journal of Contemporary Hospitality Management*, 3, 198 – 204.

Parry, Greg .2007. "E-Commerce and innovation in a club environment: Improving member services in Australian Golf Clubs. *Edith Cowan University, Australia*.

Pease, W., Rowe, M. 2004. "E-Commerce and small and medium enterprises (SMEs) in regional communities". in *Proceedings of the Chartered Institute of Marketing Inaugural Conference*, Sydney, Australia.

Ratnasingam, P. 2001. "Electronic commerce adoption in Australia and New Zealand". *Malaysian Journal of Computer Sciences*, 1, 1-8.

Rogers, E.M. 1983. "Diffusion of innovations". 3rd Ed. *The Free Press*, New York, NY.

Rogers, E. M. 1995. "Diffusion of Innovations". 4th Ed. *The Free Press*, New York, NY.

Stoehr, T. 2002." Managing e-business Projects: 99 Key Success Factors". *Springer*, Hamburg technology case', *Information Systems Journal*, Vol.11, No.3, 181-212.

Talebi, K. 2006. "Developmental innovation versus radical innovation, *Management Culture*, 4th year, No. 13, 113-130.

Thong, J. and Yap, C.S. 1996. " Information systems effectiveness: A user satisfaction approach", *Information Processing & Management*, 5,601-610.

Webster, J. 1994. " EDI in a UK Automobile Manufacture: Creating Systems, Forming Linkages, Driving Changes". *The Seventh Electronic Data Interchange Conference Proceedings*, Bled, Solvenia, Yugoslavia.

Wu, J. 2010". Government moderating effect of personal innovativeness in the model for e-store Loyalty". 2010 International Conference on E-Business. China.

Xu Qingrui, Zhao X., Liu Jingjiang, Hua Jinyang. 2001. "Technological Innovative Capability and Innovation Portfolio", *IEEE* .

Watson, R.T, Berthon, P., Pitt, L.F., Zinkhan, G.M. 2008. "Electronic commerce". This book is licensed under a Creative Commons Attribution 3.0 License.

ICM21

کنفرانس بین المللی
مدیریت در قرن ۲۱

International Conference on Management in 21st Century



مرکز همایش های بین المللی صدا و سیما

۱۶ و ۱۷ مرداد ۱۳۹۳

Aug 7th to 8th, 2014

