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Success Factors for E-Transformation of Organizations

KEYWORDS: e-business, e-transformation, e-business models, critical success factors, e-business solutions implementation

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ABSTRACT *E-business is growing and expanding very fast and has enormous impact at globalized economy. Organizations are implementing e-business in different ways according to their e-strategies so different e-business models are emerging and different e-business solutions are used. Success of such e-transformation of organization is depending on implementation process of e-business model/solution chosen. The key for success is in how the companies are able to manage success factors within different stages of e-business model/solution implementation process. The paper analyses success factors of e-business solutions implementation in different stages of e-transformation of organization.*

INTRODUCTION

The use of e-business concepts is growing and expanding and has enormous impact on organizations in globalized economy. Organizations are forced to adopt e-business for several reasons and perceived benefits. Authors mention better management of information, better integration of suppliers and vendors, better channel partnership, lower transaction costs, improved market understanding, expanded geographical coverage and time frame (Damanpour, 2001; Tsao, Lin and Lin, 2004).

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On the basis of undertaken research in the field of e-business we can acknowledge that while considerable research had been conducted into particular aspects of e-business solutions, researchers remain unsure about many management issues. Years ago noted author and researcher P.G.W. Keen called for more holistic approaches to the research of particular implementations and to consider them in more detail.

The key for success is in how the organizations are able to manage success factors within different stages of e-business model/solution implementation process. Because e-business can be done in so many different ways, organizations are facing a serious challenge, how to implement e-business concepts. The paper analyses success factors of e-business solutions implementation in different stages of e-transformation of organization.

E-BUSINESS MODELS

The e-Business model (Prudens, 2008), like any business model, defines how a company functions; how it provides a product or service, how it generates revenue, and how it will create and adapt to new markets and technologies. It has four traditional components e-business concept, value proposition, sources of revenue, and the required activities, resources, and capabilities. For the development of e-business model three distinct perspectives are important (Gordjin and Akkerman, 2001). The so called "value" viewpoint represents the way economic value is created, exchanged, and consumed in a multi-actor network. The process viewpoint represents the value viewpoint in terms of business processes. The information solutions viewpoint represents the information systems that enable and support e-business processes.

Every e-business concept based on a technology breakthrough runs the risk of being replaced by a company with a newer technology. Therefore, a strategy to maintain technological leadership, or to have access to the leading applicable technologies, is essential for the long-term survival of a technology-based e-business.

There are several classifications in which several authors tried to categorize so called generic e-business models. One of the mostly referred is the classification by Rappa (2003) which consist of 9 categories of business models: brokerage, advertising, infomediary, merchant, direct manufacturer, affiliate, community, subscription, utility.

The models are implemented in a variety of ways. Moreover, a firm may combine several different models as part of its overall Internet business strategy. For example, it is not uncommon for content driven businesses to blend advertising with a subscription model.

E-BUSINESS MODEL IMPLEMENTATION AND E-TRANFORMATION OF ORGANIZATIONS

Crucial point in e-business implementation is in the fact that the implementation of e-business concepts is from the outset aimed at integrating business processes with external business partners (Ash and Burn, 2003) and furthermore that main focus is on the integration of cross-company value chains using e-business tools (Kalakota and Robinson, 2001). E-business implementation is not a one-time event. Activities continue on an ongoing basis to accommodate changing relationships with business partners and enhanced functional and technical scope of existing relationships (Norris, Hurley, Hartley, Dunleavy and Balls, 2000).

In his extensive research about B2C strategies and models Elliot (2002) identifies three different approaches concerning e-business concepts implementation (Elliot refers to them as innovation processes): informal, formal and alternating. Informal approach is usually based primarily on internal resources and is used by mature big organizations. A formal approach consist of 17 processes and was according to Elliot (2002) adopted by most startups: awareness of the business potential of e-business activities, identifying a perceived business threat or opportunity, investigating e-business based business opportunities, undertaking market research, formal business and strategy planning, formal decision making to proceed, securing funds, identifying specific goals, planning for implementation, establishing technological platform,

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developing e-business systems, establishing capability for integrated logistics through in-house operations and strategic partnerships, initial promoting of the brand, commencing business in pilot mode, full implementation, continual reviewing and revising, securing additional funding. Alternating model combined steps from the formal and informal models with formality being introduced by external influences and was according to Elliot (2002) used in pioneering situations where no prior experience with e-business existed.

It is obvious that the process of e-business model implementation is not strait forward and could not be conducted in all companies in same way. It is much more complex and has to be adjusted to the specific needs of distinct company – it has to become a process of transformation of the company. Arunatileka and Ginige created "Seven Es in eTransformation" process which consists of 7 phases (Arunatileka and Ginige, 2003):

1. environmental analysis,
2. eBusiness goals and strategies formulation,
3. ereadiness (internal and external) assessment,
4. eTransformation roadmap planning,
5. eTransformation methodology defining,
6. eSystems implementation,
7. evolution and change management.

SUCCESS FACTORS FOR E-TRANSFORMATION

In past years considerable research was focused in success factors connected with implementation of e-business. We have reviewed and analyzed published research on e-business success factors and we concluded that on the basis of discussed success factors, the most important (and mentioned in majority of previous studies) e-business success factors are: top management support/ involvement, clear goals/ objectives/scope, compatibility with existing infrastructure, market forces (competitors, partners …), competencies of internal users, government support, strategy, business process reengineering (BPR), change management, consultants, excellent project management, company size, project champion, effective communication, minimal customization.

TABLE – 1
PUBLISHED ARTICLES ABOUT E-BUSINESS IMPLEMENTATION CSFS

Author										
Critical success factor	1	2	3	4	5	6	7	8	9	10
Top management	X		X	X	X	X	X	X	X	
Clear goals, objectives and planning	X	X	X	X	X	X		X		
Compatibility (infrastructure)	X		X	X		X	X	X		X
Market forces			X	X	X	X	X		X	X
Competencies of internal users			X	X	X	X		X		X
Government support			X		X		X	X		X
Strategy	X							X	X	X
BPR		X						X	X	
Change management		X				X				X
Consultants		X							X	
Excellent project management	X				X					
Firm size				X			X			
Project champion	X	X								
Effective communication	X									
Minimal customization		X								

Note. Authors under corresponding numbers are: (1) Butler (2000), (2) Chuang and Shaw (2005), (3) Grandon and Pearson (2003), (4) Lertwongsatien and Wongpinunwatana (2003), (5) Molla and Licker (2005), (6) Phan (2001), (7) Thatcher, Foster and Zhu (2005), (8) Tsao, Lin and Lin (2004), (9) Viehland (2000), (10) Hong and Zhu (2006).

According to the conducted research (Sternad and Bobek, 2007) and according to the study of several cases of e-business models/solutions implementation (Deželak, Bobek and Sternad, 2006) different success factors are more important in some phases of e-business models/solutions implementation process than in other phases. In other words it seems that not all e-business success factors have the same importance during all phases of the implementation process. We can conclude that the margin of importance or relevance of factors is not the same through all the stages of the implementation process. We analyzed this phenomenon of e-business success factors importance in different phases of e-business concepts implementation in the context of Seven E's in eTransformation model. Our findings are shown in table 2 and are shortly presented below.

TABLE – 2
SUCCESS FACTORS ACCORDING TO ETRANSFORMATION MODEL

	e-transformation steps						
Success factor	1	2	3	4	5	6	7
Top management	X	X	X	X	X	X	
Clear goals, objectives and planning		X	X	X		X	
Compatibility (infrastructure)			X	X	X	X	
Market forces	X	X					
Competencies of internal users			X	X	X	X	
Government support	X						
Strategy		X	X	X	X		
BPR		X			X		
Change management	X	X		X	X	X	X
Consultants	X			X			
Excellent project management		X			X		
Firm size	X						
Project champion		X		X			
Effective communication	X			X	X	X	
Minimal customization						X	

Note. E-business implementation steps in order are: (1) Environmental analysis for e-business, (2) E-business goals and strategies definition, (3) E-business readiness assessment, (4) E-business transformation roadmap planning, (5) E-business implementation methodology definition, (6) E-business systems development and implementation, (7) E-business change management.

Environmental analysis phase gives an insight into the external environment the organization is working in (Arunatileka and Ginige, 2003). Usually in this stage SWOT analysis, industry analysis and global trends analysis are conducted. According to previous research on success factors we think that in the first stage very important factors are: top management support, market forces, government support, change management, consultants, firm size, effective communication.

E-business goals/strategies phase defines corporate strategy and goals for e-business. A prerequisite for this are identified organization's competitive advantages (Arunatileka and Ginige, 2003). Important success factors in this stage would be: top management support, clear goals/objectives/planning, market forces, strategy, BPR, change management, excellent project management and project champion,

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In third phase e-business readiness has to be assessed. According to Porter (1996), seven aspects of e-readiness have to be analyzed: business process, applications and infrastructure, web presence, skills, executive management, external connectivity and future directions. The following success factors are in our opinion crucial in this stage: top management support, clear goals, objectives and planning, compatibility (infrastructure), competencies of internal users and strategy.

The fourth phase – eTransformation roadmap assesses the current status of the company and shows the direction to proceed. We assume that in this phase very important success factors are: top management support, clear goals, objectives and planning, compatibility (infrastructure), competencies of internal users, strategy, change management, consultants, project champion and effective communication.

E-transformation methodology phase has an iterative nature, ensuring the changes are not difficult to cope with. Modifications and changes to systems are to be expected. According to the matter of this stage as important success factors can be defined: top management support, compatibility (infrastructure), competencies of internal users, strategy, BPR, change management, excellent project management and effective communication.

In the eSystems phase management controls have to incorporate standards, guidelines to users, procedures and manuals for the new system. Security issues are being taken care of at this point. In this phase it seems that the important success factors are: top management support, clear goals/objectives/planning, compatibility (infrastructure), competencies of internal users, change management, effective communication, minimal customization.

Change management phase ensures the transition is smooth and that it achieves the expected broader and narrower goals and objectives of the entire transformation process. Since the entire phase is the same as one of identified success factors, that is change management, this is clearly the most important factor. This last stage is supposed to have a connecting role to all other stages, so it is different in its definition. As a result, we won't assign additional factors to this stage.

We are persuaded that linking of e-business success factors to the phases of e-business models/solutions implementation process is crucial to improve success of e-business projects and to enhance the knowledge about management issues of e-transformation of organizations.

CONCLUSION

E-business is one of crucial enablers of global economy. It is developing rapidly. E-business models implemented and applied by companies all around the world are the driving force for innovative use of new technologies in all business areas.

Implementation of e-business solutions require substantial resources, and yet, the success is not guaranteed. To be successful organizations must try to minimize risks by focusing on success factors. In this paper we have analyzed previously published sources about e-business implementation which are connected with CSFs of e-business implementation. With comparative analysis we listed a set of 15 CSFs. According to our results, top management support is the most important critical success factor, followed by clear goals, objectives and planning, compatibility of infrastructure, market forces, competencies of internal users and government support. Furthermore our research shows that the importance of e-business implementation CSFs differs within different stages of e-business implementation process. We are persuaded that linking of e-business implementation CSFs to an e-business implementation process is crucial to improve success of e-business projects and to enhance the knowledge about management issues of e-transformation of organizations.

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