

CONSIDERING THE SOCIETAL IMPLICATIONS IN THE ADOPTION OF E-BUSINESS MODELS

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Abstract

A large amount of work within current European research concerns e-business models. A common theme underlying these research projects concerns the experiences and lessons learned from developing and implementing e-business models. At the same time, however, there is a common limitation across most of these projects: the emerging knowledge on e-business models development only exists *within* these projects and, despite the dissemination efforts in business and academia, remains fragmented. Some projects concentrate on their specific market, while others concentrate on a specific industry sector, type of product, or technology stream. However, as these models represent value, which extends beyond this specific context, there is an unprecedented need for a deeper understanding leading to specific actionable directions in boosting the research and market potential from the adoption of new models for business and work. Another limitation of this work is that it is very often driven by the market exploitation of innovative products. This concentrates on economic rather than social issues. However, it is the social issues that define the broader context of electronic commerce adoption. This paper identifies these social issues and demonstrates their importance in e-business.

1. Introduction

The definition and discussion on e-business models has, to date, focused primarily on organisational and technical factors. In contrast, societal factors, that is, factors related to the general societal context influencing the shape and adoption of e-business models in practice, have not been adequately addressed. We argue that developing models for conducting e-business is not simply about the adoption of new technologies. It also concerns changes in work practices, in customer/supplier relationships, in the way products are delivered to consumers, in marketing practices and changes in staff skills needed to support e-business.

It is projected that new business models are expected to influence peoples' everyday life as much as they will affect work and employment. For example, E-Bay managed to become a very successful on-line auction store and maintained its success; despite the lucrative market in which it was operating which attracted many competitors. Taking into consideration the variations in culture of its potential buyers, the company developed a business model that eliminated geographic distances and location asymmetries among sellers and buyers and moreover brought

everybody together in a common virtual marketplace that took into consideration all the differences that its users might exhibit. Hence, on-line communities were created. Moreover, the fact that E-Bay highly emphasized upon the importance of trust and reliability from the consumers' perspective and thus it incorporated them in its business model turned out to be vital for its success. Another case in point is E-trade. The company vigilantly investigated the regional environment that was best to set up its business. The company selected the US region since it was an area that people were mature enough to accept and use the privileges and the opportunities offered. Similarly to E-Bay, E-Trade realized that privacy and security were very important for its potential customers and therefore placed a lot of emphasis on these issues. The company enhanced its differentiated appeal offering higher quality and broader product line. Based upon that, the low-cost company had created a differentiation advantage in the quickly evolving on-line financial services industry. The consideration of the societal factors in both case examples played a vital role to the success of these businesses and had an on their increased market share through the word of mouth/mouse, despite the fierce competition.

These cases provide examples where new e-business models lead to new business practices that affected the behaviour of individuals, and society as a whole, towards innovative products and services. By focusing on dynamic capabilities that emerge from new business models and examining societal issues - factors that affect people and their environment - we will gain a wider and deeper understanding, as well as initiate further work to promote their discussion across individual projects and further research. To this end, this paper aims to identify societal e-factors and discuss their importance in the context of e-business. Societal aspects of current e-business models are presented here as a crucial element in achieving sustainable adoption of research and development outcomes.

The societal e-factors identified in the course of our analysis have been grouped in the following categories: factors related to Region/Geography, Culture, Legal/Regulatory/Policy, Economic, Ethical & Professional factors, as well as factors related to Social Capital/Social Networks and Social Structure. These factors influence, directly or indirectly, the way in which e-business models are perceived, implemented and evaluated. The paper is structured as follows. The next section positions this research within the European Commission Fifth Framework Programme. Section 3 discusses the theoretical basis for our analysis and section 4 analyses the societal factors and their role in e-business. The paper concludes by outlining future research directions, arguing that technical, individual, organisational, industrial and societal factors form an integral part of our understanding of e-business and its further development.

2 Research background

Following from the observation that the current technical and organisational focus on e-business models provides an incomplete picture for the development of sustainable e-business, particularly in terms of acceptance by society, we have argued for a holistic study of e-business model adoption. To this end, we have started working on 'E-factors: a thematic network on e-business models', a European Fifth Framework Programme project that brings together 16 partners, representing the regional diversity of the European Union (www.eltrun.aueb.gr/efactors, 2002). The ultimate objective of e-factors is to strengthen the dissemination of knowledge and understanding of e-business models and associated technologies

across Europe. This dissemination effort is intended to accelerate the take-up of *appropriate* information and communication technology (ICT) solutions by adopting a holistic perspective to e-business adoption that integrates the study of individual, organisational, industrial, societal and technological aspects of e-business. The results of this study will provide Europe's organisations and individuals with advanced knowledge and access to ICT capabilities allowing quick take-up and entry to the digital age. The e-factors consortium works towards forming a co-ordinated network of activities for the exchange of knowledge and best practices – with the key aim to advance knowledge of the factors of broad and sustainable adoption of new business models – a dissemination of new state-of-the art knowledge in e-business models. The project also aims to construct a report that the European Union can use to formulate future strategic implications that take into account the diverse and complex social environment in which the changes incurred by e-business take place. Knowledge will be drawn from the expertise of leading universities and current European projects conducting research in e-business models, their adoption and their socio-economic implications.

It is acknowledged that information technology applications in the form of new e-business models provide a unique opportunity for European companies to go through the convergence learning curve, faster and with greater success. Accelerating the learning process within and between businesses in Europe is very important. The network infrastructure of the new economy offers a more level playing field with greater opportunities for all businesses whether they are in more or less developed economies. Effective e-business practices put in practice will give companies in Europe exposure and access to global markets at a fraction of the cost and the risk. The transfer of knowledge necessary for the companies to make the right steps ahead, through a training program in e-business best business cases and implementation approaches is required. Also, the fast changing world of the Information Society will undoubtedly create vast educational requirements for new graduates and for the re-training of the existing workforce. Online e-commerce education programmes seem to become very important to the adoption of E-business models. The agenda of the e-factors is to provide a framework for exploring these issues through the collaboration of a network of experienced partners, who will increasingly include interested stakeholders beyond the project's current consortium.

3 Insights from societal theories

Current definitions of e-business models typically accentuate the profit making aspect of an organisation or a network of organisations, e.g., “[an Internet business model] is the method by which a firm plans to make money long term using the Internet” [Afuah & Tucci, 2001]. It is clear that societal factors have a role to play in e-business – they form part of the general ‘context’ or ‘environment’ within which e-business takes place – and several issues, societal in nature, have been addressed and studied, including issues of trust, awareness and culture, as portrayed in the cases in the introductory section but also in the academic literature on e-commerce. We do not, however, have as yet a comprehensive framework of societal factors and it is not clear which specific factors are important and which theoretical frameworks can support their study in the context of e-business. In order to address these gaps in the literature we have selected a number of social theories that can provide a theoretical device for studying social factors. At a more fundamental level, these theories can help us identify relevant social factors, thus shedding light to the question of which possible societal factors can impact the development

and adoption of e-business models. The following table presents such theories and the societal factors they consider.

THEORIES		SOCIETAL FACTORS IDENTIFIED
1.	<p>Cultural Theory [e.g., Hofstede, 1994; Douglas, 1978]</p>	<ul style="list-style-type: none"> ○ Values and Beliefs ○ Communities ○ Awareness ○ Ideas and Attitudes ○ Community ○ Social Support ○ Social Networks
2.	<p>Socio-Cultural Theories [e.g., Piaget, 1928; Vygotsky, 1978]</p>	<ul style="list-style-type: none"> ○ Social structure ○ Role ○ Social factors ○ Competition ○ Communities ○ Attitudes
3.	<p>Ethical Theories [e.g., Mason, 1995; Moor, 1985]</p>	<ul style="list-style-type: none"> ○ Computer Crime ○ Responsibility ○ Professionalism ○ Anonymity ○ Trust ○ Free Speech
4.	<p>Cyberculture & Cyberpsychology [e.g., Turkle, 1995]</p>	<ul style="list-style-type: none"> ○ Language ○ Linguistic ○ Anonymity ○ Identity Crisis ○ Free speech ○ Confidentiality ○ Trust ○ Computer Crime ○ Reliability

5.	Diffusion of Innovation [e.g., Davies, 1979; Rogers, 1962]	<ul style="list-style-type: none"> ○ Cultural ○ Competition ○ Economic ○ Government ○ Environmental ○ Roles ○ Social structure ○ Regulation/legislation
6.	Social Attitude Theories [e.g., Abelson, 1968; Heider, 1959; Triandis 1971]	<ul style="list-style-type: none"> ○ Acceptance ○ Change ○ Attitudes ○ Ideas ○ Competition ○ Roles ○ Social structure
7.	Social Embeddedness [e.g., Granovetter, 1973; 1985]	<ul style="list-style-type: none"> ○ Social networks ○ Social capital ○ Social cohesion ○ Social support
8.	Population Ecology [e.g., Hannah & Freeman, 1977]	<ul style="list-style-type: none"> ○ Acceptance level
9.	Institutional Theory [e.g., DiMaggio & Powell, 1983; Zucker, 1987]	<ul style="list-style-type: none"> ○ Acceptance of business models ○ Diffusion of innovative business practices ○ The role of incubators in the adoption of particular business models
10.	Stakeholder Theory [e.g., Freeman, 1984; Donaldson & Preston, 1995]	<ul style="list-style-type: none"> ○ Culture ○ Ethics ○ Decision-making ○ In-depth perspectives of decision makers

4 Societal e-factors

The social theories presented in the previous section provide an extensive source of factors that can help us understand and interpret societal aspects in the development and adoption of e-business models. This section groups these factors into seven general categories:

Region/Geography, Culture, Legal/Regulatory/Policy, Economic, Ethical & Professional, as well as Social Capital/Social Networks and Social Structure, presenting thus an initial framework for

the study of societal e-factors; that is, factors from the societal realm that influence broad and sustainable adoption of e-business models.

4.1 Region/Geography

Geography is in general, defined as “a large land area that has particular geographic, political or cultural characteristics that distinguishes it from others whether existing within one country or extending over several”. In the context of this thematic priority, region/geography is a term that encompasses issues that are highly related to specific geographic areas and that may be linguistic singularities of specific regions, environmental issues and other country specific issues that can be associated with the rest of the identified categories in the societal thematic area.

- Language - Vocabulary
- Country – specific issues
- Environmental issues

4.2 Culture

Culture is, most of the times, seen as a multidimensional and convoluted phenomenon that addresses issues that deal with “the patterns of behaviour and thinking that people living in social groups learn, create, and share” (Bodley, 2002). Thus, culture is considered to be the characteristic that distinguishes human groups since it includes, amongst other things, their values, beliefs, rules of behaviour and rituals.

Therefore, in the context of this thematic area, culture is based upon the concept that “people living together in a society share culture” (Bodley, 2002). More precisely, culture is perceived so as to encompass issues related to common rules of behaviour that members of one group share amongst them. These issues are values, beliefs, ideas, attitudes, religion and other factors that have been identified in the process of our analysis and can be seen below.

- Values/ Beliefs
- Acceptance/ Maturity of people
- Awareness
- Communities
- Social Support
- Religion
- Ideas
- Attitudes
- Change
- Word of Mouth / “Word of Mouse”

4.3 Legal/ Regulation/ Policy

The terms legal and regulation portray the official rules, laws or order stating what may or may not be done or how something must be done that have been issued by a government department or agency that has the force of law. All these issues are addressed in this category: legal/regulation/policy, which also encompasses issues related to role of the policy makers, the regulatory frameworks, reliability, confidentiality, freedom of information and e-democracy and others that can be seen, in the list, below.

- Security
- Privacy
- Freedom of Information
- Reliability
- Confidentiality
- Regulation
- Policy makers / “Policy Intermediaries”
- Regulatory framework- Jurisdictions
- Taxation
- Infrastructure
- e-Democracy

4.4 Economic

In this category, we are concerned with issues that are related to the economic conditions of a country, seen from a macro perspective. More specifically, in this category, we consider issues related to the structure of the markets and their competitive characteristics as well as the overall economic environment in a regional and national level.

- Market structure (concentration, competition)
- Access

4.5 Ethical & Professional

Considering that “ethics, in general, are concerned with the moral character of voluntary actions that affect other people”. Ethics in the context of the e-business models and in association with the societal thematic area suggest the exploration and analysis of ethical issues such as computer crime or abuse, responsibility, anonymity and so on. Furthermore, in the same perspective, professional issues deal with the responsibilities and roles along with the level of professionalism of the agents in the context of e-business.

- Identity Crisis Issues
- Responsibility & Roles
- Computer Crime / Computer Abuse
- Anonymity
- Free Speech
- Trust

4.6 Social Capital / Social Networks

In the context of the societal thematic priority, the definition of social networks that Laumann, Galaskiewicz and Marsden (1978: 458) introduced is adopted. According to this definition a social network is a set of nodes (e.g. persons, organizations) linked by a set of social relationships (e.g. friendship, transfer of funds, overlapping membership) of a specified type. This definition permits the introduction of social context in the analysis of business models and provides multi-layered perspectives to the investigation of factors affecting their sustainable adoption.

4.7 Social Structure

Sociology indicates that social structure is “the way in which society is organised into predictable relationships and patterns of social interaction” (Schaefer & Lamm, 2001). Consequently, in the context of our analysis the term social structure indicates the way in which a human society is related and organised. Thus, social factors, income level, education status, social class are some of the elements that are seen to influence the way of living, the decision making and the possibilities of the members of a society.

- Social Factors
- Income Level
- Education Status
- Social class (social rank)
- Wealth
- Ethnic background
- Social cohesion

5 Conclusions

The proliferation of e-business models will undoubtedly result in fundamental shifts in the way in which citizens conduct their market-related activities (such as shopping, selecting through browsing, paying and so on). Many of these activities previously performed in ‘traditional’ markets, for example stores, shopping malls, street markets, using traditional mechanisms, for example, fixed prices, negotiations, auctions, will in the Information Society be conducted in fundamentally different ways. For example, buyers will increasingly have the opportunity of forming opportunistic groups in Internet forums that will allow them to concentrate their buying and negotiating power towards reducing the prices for goods and services. Similarly, suppliers will have increasing opportunities to leverage the capabilities of Internet to create complex product bundles, to aggregate and dis-aggregate product offerings, or to merge offerings from previously independent vertical markets in an effort to increase their sales, to diversify their operations, offer personalised products and services, and to expand their market grasp.

These changes are expected to drive citizens towards two opposing directions. On the one hand, they will provide new opportunities for increasing the quality of life in the Information Society for those individuals that are in a position to understand, adopt and leverage these societal shifts. On the other hand, the same changes result in social exclusion and the risk of isolation for those that will not be prepared to follow the trends. In order to limit those forced to fall in the latter category, this paper contributes by identifying factors of broad and sustainable adoption of e-business models. Through this contribution, it can support policy makers in considering important societal factors that will ensure that opportunities are not missed and the digital divide and other similar social exclusion threats are limited in Europe. Thus, societal aspects of current e-business models have been presented here as a crucial element in achieving sustainable adoption of research and development outcomes and include factors related to Region/Geography, Culture, Legal/Regulatory/Policy, Economic, Ethical & Professional factors, as well as factors related to Social Capital/Social Networks and Social Structure.

Through the identification and the theoretical validation of these factors it can be derived that they influence, directly or indirectly, the way in which e-business models are perceived, implemented and evaluated. Indeed these factors are related to both the social environment (in particular issues of culture, geography, ethical factors as well as the factors relating to social capital and networks) and to the business environment (legal and economic factors that form the macro business environment). It is clear from the detailed description of the factors, as described earlier in the paper, that the social aspects of e-business are closely related to four other key themes in e-business adoption: individual, organisational, industrial and technical factors (e.g., culture can be studied at the individual, organisational and societal levels; security has a social dimension but its implementation relies on technological capabilities and organisational policies or industrial standards, and so on). Further research can be directed towards providing instances where the role of these factors and their interrelations can be demonstrated, drawing detailed examples from current e-business cases. Through the investigation of these cases, we can draw useful conclusions about the relative importance of these factors and the ways in which they take shape in different business contexts. Such conclusions can facilitate a systematic study of the societal aspects of e-business and help us understand their practical implications and influence the adoption of e-business to the benefit of a broad range of stakeholders.

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