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STRATEGIC PLANNING FOR E-COMMERCE SYSTEMS (SPECS): DEVELOPING INTERPRETATIONS

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Abstract

This position paper briefly outlines some of the background, motivation and principles relating to strategic planning for e-commerce systems (SPECS). It considers in particular, the theoretical nature of the debate within markets and between customers for a better understanding of the processes involved. This augments earlier research where the notions of e-markets, e-chain and e-alliances were adopted. The paper concludes with a call for the advantages of analyzing the whole e-business environment as a basis for further study.

Keywords: Strategic planning, e-commerce, markets, customers

Introduction

Given the recent demise of many e-commerce businesses, the issue of strategic planning for e-commerce systems (SPECS) deserves special attention. It may be worth analyzing as to what went right and what caused the demise of the dot com era. Researchers in the past have provided explanations for e-commerce success or failure either based on transaction cost economics or have considered the phenomena in terms of value it afford to the customer.

Those who have considered e-commerce on basis of transaction cost economics, seek to address the fundamental question as to how information technology affects the firm and market structures and what options exist for businesses to take best advantage. It was the seminal work of Malone, et al. (1987) that initiated this debate. They argued that by reducing the cost of coordination, information technology can lead to a proportionately more use of 'markets' than 'hierarchies' as a means of coordinating economic activity. Consequently they differentiated between two types of coordinating mechanisms - markets and hierarchies. A *market* coordinates the flow of goods by balancing the supply and demand and other external transactions, typically between and individual and a firm. It is therefore a means whereby multiple buyers and sellers conduct business through an electronic intermediary. A *hierarchy*, on the other hand, coordinates the flow of goods by the process of controlling and directing. Therefore a hierarchy helps in integrating tasks and functions across a predetermined set of organizational boundaries In any given situation, market and hierarchy coexist.

The second group of researchers are those who consider e-commerce from the perspective of a customer. They generally are of the view that IT manifests itself in business in an evolutionary form. These researchers have a totally different mindset with respect to the nature and scope of e-commerce. They differentiate themselves from the rational economic viewpoints propounded by transaction cost economist, and argue that e-commerce is an outcome of an evolution in cooperation and community building. Armstrong and Hagel III (1996) for example suggest that on-line communities have existed for a while and it is only recently that commercial organizations have joined the ranks. They stress on the consumers' needs for a community and in that sense electronic commerce is a means to the developing such a community. Armstrong and Hagel III, (1996) identify four types of electronic communities that help in meeting consumer needs - communities of transaction; communities of interest; communities of fantasy; communities of relationship.

Communities of transaction are not the communities in the traditional sense. This is because they primarily facilitate the buying or selling of products and services. *Communities of interest*, involving a high degree of interpersonal communication, bring together participants who interact with each other on specific topics. *Communities of fantasy* create a new environment for the participants. Individuals take on personalities to participate in different chats. *Communities of relationship* are based around certain life experiences that can lead to the formation of deep personal connections. It has been argued by different authors that value can be created in these virtual communities. The logic on basis of which such virtual value chains lead to corporate profitability is very different from the logic of the traditional value chains, that have exclusively been based on transaction cost models.

The transaction cost and customer orientation in understanding e-commerce is interesting. It offers a useful means to understand two key elements of the a successful business – the investor and the customer. As Christensen (1997) has argued, a balanced focus on the investor and the customer a key to successful business strategy. In keeping with the core theme of this mini track, it has have argued previously (Hackney and Burn, 2000), that a successful e-commerce strategy can only be developed if analysis is carried out at all of the following three levels:

1. E-Market Analysis
2. E-Chain Analysis
3. E-Alliance Analysis

An E-Market analysis involves the understanding of the complexities of organizations and individuals co-evolving their capabilities and roles and aligning themselves with the direction set by one or more central companies (Moore, 1997 p. 26). An E-Chain analysis understanding the nature and scope of the supply chains and trading partner relationships. The emphasis here is to derive significant value through increased revenues and decreased costs. An E-Alliance analysis facilitates the understanding of capabilities necessary to cope with strategic, technical, cultural and operational change. Clearly as the virtual value chain is formed facilitating direct exchange between the producer and consumer so we see the role of intermediaries being threatened (Wigand and Benjamin, 1995). But there may also be opportunities for new intermediaries.

SPECS Principles

The previous section has identified the importance of conducting an overall analysis of an e-business environment that would facilitate the development of adequate strategies. What is however need is a set of principles that would form the basis for establishing such strategic plans. Clearly, e-commerce is a disruptive technology (cf Christensen, 1997) since it falls short of improving the performance of products and services along the lines that have historically been valued by most customers in majority of the markets. This does not mean that businesses, brick and mortar or otherwise, that adopt e-commerce are doomed, rather businesses could perhaps draw substantial benefits, albeit after careful consideration of various facets. As Christensen (1997) notes, a disruptive technology usually underperform established products in mainstream markets, but has features that only a few customers value. This would mean that a product or a service related to disruptive technology such as e-commerce would be cheaper, simpler, smaller and frequently easy to use.

In gaining advantage from a disruptive technology such as the Internet and e-commerce, it is therefore essential to adopt principles that facilitate in managing such technological developments. Based on Christensen (1997), we propose four sets of principles that should form the basis for strategic planning for e-commerce systems. These are:

1. Those companies that either utilizing disruptive technologies or have a product or a service that is disruptive, should remember that their success depends on both the customers and investors for resources.
2. Since small markets don't solve the growth needs of large companies, the launch and sustainability of a disruptive product or service needs to be positioned accordingly.
3. Since disruptive technology products and services are novel, it is hard to analyze their respective markets, which do not exist.
4. Ability to create a business model, product or a service does not necessarily mean that there is a demand for such a product/service, i.e. technology supply may not equal market demand.

Conclusion

The essential principles for SPECS have been outlined. It is argued that e-commerce is a disruptive technology which does not fit easily with simplistic organizational planning objectives. A more holistic approach is necessary which considers markets and customers at the heart of the analysis.

References

Armstrong, A., and Hagel III, J., "The real value of on-line communities," Harvard Business Review, Volume 74, Number 3 (May-June), 1996, pp. 134-141.

Christensen, C. M., The innovator's dilemma, Harvard Business School Press, Boston, 1997.

Hackney R A and Burn J (2000)(Eds) SPECS: a new approach to strategic planning for e-commerce systems, Journal Logistics Information Management, Vol 14, No 1/2

Malone, T. W.; Yates, J.; and Benjamin, R. I., "Electronic markets and electronic hierarchies," Communications of the ACM, Volume 30, Number 6, 1987, pp. 484-497.

Moore, J. F., The death of competition: leadership and strategy in the age of business ecosystems, Harper Business, New York, 1997.

Wigand, R. T., and Benjamin, R. I., "Electronic commerce: effects on electronic markets," Journal of Computer-Mediated Communication, Volume 1, Number 3, 1995.