

A closer look at digitalization of business relationships

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Jari Salo, (M.Sc.), Researcher in Marketing¹

Department of Marketing

jari.salo@oulu.fi

Dr. Heikki Karjaluoto, Professor in E-Commerce

Pehr Brahe Software Laboratory

heikki.karjaluoto@oulu.fi

and

Dr. Kimmo Alajoutsijärvi, Professor in Marketing

kimmo.alajoutsijarvi@oulu.fi

all at the department of marketing

¹ Corresponding author: Jari Salo, Faculty of Economics and Business Administration, Department of Marketing, University of Oulu, P.O.Box 4600, FIN-90014 University of Oulu, Finland, e-mail:jari.salo@oulu.fi, tel: +358 8 553 2957, fax: +358 8 553 2906

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Abstract

The purpose of this paper is to enhance our understanding of business relationships conducted in digital environment by creating a preliminary framework to study the digitalization of business relationships. Although digital environments allow companies new ways to conduct business, they are still merely seen as facilitating technologies not as revolutionizing miracles that change the fundamental course of exchanges. Digital environments are novel ways to create, maintain, manage and end business relationships. The paper tackles digitalization not only from the theoretical side but also attempts to cast light on managers' side. These two aspects are examined from the conceptual point of view. The main outcome of the study is a preliminary model developed for grasping the phenomenon.

Introduction

Different types of exchanges and management of those exchanges has been a key focus in marketing for decades (Alderson 1957 and Webster 1992). Also the information technology (IT) has been in increasing amounts mentioned as important interrelated area of focus in marketing. The marketplaces (Dertouzos 1997) and digitalization (Negroponte 1995) are only new waves of IT not new types of liquids. In the next part we will take a closer look at one exchange type namely business relationships and show how IT is affecting relationships. This study is structured as follows. The first part presents a short review of the literature on business relationships and IT. This will be followed by a presentation of the preliminary model for tackling digital business

relationships. The paper concludes with a discussion of future research areas for digital business relationships.

Literature review on business relationships and IT

Exchanges can be conducted in many forms as elaborated for example in Webster (1992). In theory, the exchange should occur in a setting that is most effectively organized by the parties participating in an exchange. This is not always the case in practise. One reason for this is the asymmetric information between the buyer and the seller and the total costs of exchange that are for this reason higher than in optimal exchange condition. This optimal exchange condition is almost impossible to find and control as pointed out by Wilkinson (2001). Many businesses and individuals both in B2B markets and in B2C markets are relying on relational exchange forms, which are in general more popular than market like exchanges. Series of exchanges between familiar and trusted parties forms the basics of business relationships. These relationships are part of a larger web of relationships named business network (Axelsson and Easton 1992; Anderson, Håkansson and Johanson 1994).

At the moment there is a lot of hoopla in the area of information systems (IS), information technology (IT), information and communication technology (ICT) and electronic commerce technologies (ECT). These technologies have profound influences on our lives and these impacts have been described as new economy, digital economy and with many other labels too (Dertouzos 1997; Negroponte 1995). As pointed out by Wilson, Littler and Bruce (1997) it is not fruitful to identify different approaches to define IT. Instead how firms can utilize IT effectively is the main question. Technologies are resources that companies are employing. Resource is

anything that can be thought of as a strength or weakness of given firm (Wernerfelt 1984). Those resources, direct or indirect to focal company, must be used as effectively as other resources like labor and capital. There has been lots of discussion of the impact of IT on economy as whole but not until recently a review study of IT and economic performance conducted by Dedrick, Gurbaxani and Kraemer (2003) found that IT has a positive and significant impact on labour productivity and economic growth. But from the business relationships perspective the investments in IT may turn against business parties if the people in the organizations does not use investments. The employees must adopt the use of new IT into their work processes this is because humans are the basic element in every IS (Fuglseth and Gronhaug 1994).

The underpinning factor under modern IT is the use of digital processes. These processes are usually carried over the Internet and its other forms Intranet and Extranet. Enterprise resource planning (ERP), customer relationships management (CRM), supply chain management (SCM) and enterprise application integration (EAI) systems are enabling business processes and creating new business contexts for companies to operate. IT resource when applied correctly gives companies, dyads and triads efficiencies by smoothing business processes and transactions by re-engineering the way of work (Brehmer and Johansson 2001; Sharma, 2002). According to Wilson and Abel (2002) IT also enables many new radical channel solutions and gives certain enhancement to whole organization for instance by improving internal and inter-organizational communication. The impact of IT on business relationships from interaction perspective (Håkansson 1982; Möller and Wilson 1995) has been studied in few publications until the publication of the article by Leek, Turnbull and Naudé (2003). They focused on communication modes in the UK. The literature is packed with various models concerning how to conduct business in the electronic era. Models have been developed for both B2C and B2B markets. The

way exchanges are organized is different in these markets since both have their own operating conditions. Wise and Morrison (2000) identified an important gap between the ideas of electronic commerce models and relationships marketing. Those studied models did not support the idea of relational exchange and rather supported market exchanges. Furthermore, the use of IT is not a new phenomenon. Electronic data interchange (EDI) and electronic funds transfer (EFT) systems were marginally adopted from the 1970's as Easton and Araujo (2001) point out. These systems are used mostly between B2B parties (Zwass 1996). To conclude we need some fresh ideas how to think about the impacts of IT on business relationships and networks.

The impacts of IT developments on business relationships

With the help of IT we now face emerging phenomenon referring to the fact that quite many products, services as well as information can be digitized, i.e. converted to bits, and delivered to customers via or with help of the Net (Shapiro and Varian 1999). The producers of goods have accelerated this evolution since the information element almost in every offering is increased (Porter and Millar 1985). In digital business relationships the gains for both parties are even higher due to the fact that "friction" in digital environment is less than in traditional exchange. By digital environment we refer to the use of IT in inside parties and while connecting to other parties. Relationships that are formed in digital environment with compatible applications and systems provide sustainable competitive positioning towards enemies because digital business relationships with substantial managerial IT-skills are hard to imitate (Mata, Fuerst and Barney 1995). This is possible since the information flow between different strategic business units and organisations that are embedded in the relationship are tightened together by working IS and applications. It should be pointed out that atomistic products, consists of atoms, that cannot be

digitized are still delivered via the traditional channels. In the figure one we present a preliminary model to enhance our understanding of the impact of digitalization on business relationships.

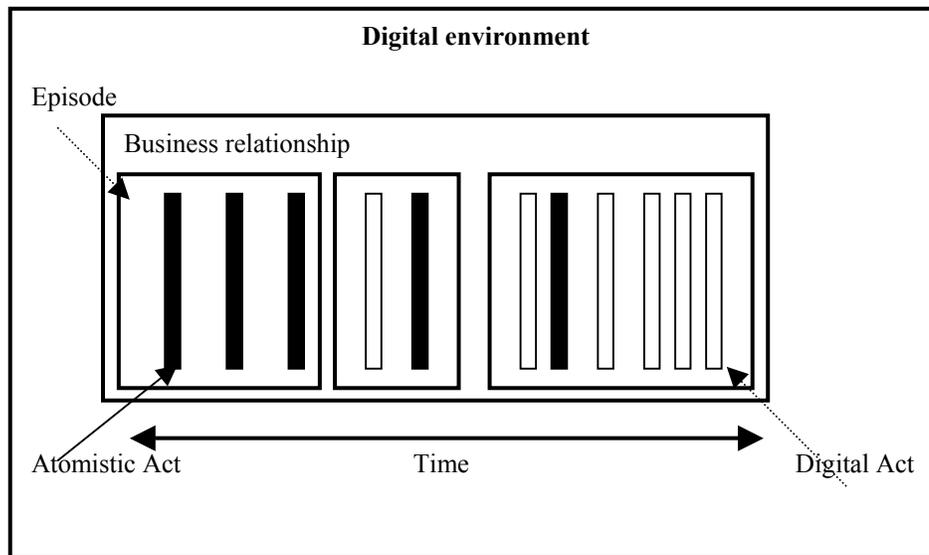


Figure 1: The impact of IT and digitalization on the evolution of business relationships.

Figure one shows that each of the separate acts and episodes between business parties that accumulate the exchange are affected by the digitalization. There exist many types of combinations of digital and atomistic acts. These can be divided into three basic combinations: first there exist traditional episodes, transitional episodes and digital episodes. In a *traditional episode* the role of face to face communication i.e. atomistic act between the seller and the buyer is the focal phenomenon. In the figure one the first presented episode of the relationship is a traditional one. In a *transitional episode* the face to face communications are substituted by digital tools like e-mail or EDI, over the Net or VAN. The episode two in the figure one presents one digital act in the relationship and after that the companies conduct atomistic acts due to the fact that something has occurred and the episode cannot be continued as digital. The something could be for example a need for redefine some aspects of the product exchanged that is usually too complicated to arrange in a digital environment at the moment. *The digital episode*, that is the

third episode, encapsulates the ideal combination of acts because all the acts are digital and form a digital episode that is the cornerstone of digital business relationships. The act, episode and the forming of business relationship is somewhat misleading when considering the temporal aspect but at the moment this division of time and action into slots will work for the purpose of this research. Now when combining the three episodes we can see that the relationship is evolving into a digital business relationship where all acts are digital and the friction between the parties is decreased. Then how to manage traditional business relationships to form these digital business relationships is another question.

However, when these systems are being placed it takes lots of money, time and different kinds of adaptations between business parties. EDI and other IOS impacts on the business relationship development are presented by Wilson and Vlosky (1998). To put it shortly, EDI, IOS and other systems in some magnitude, while installing, interrupt business relationships. After the interruption is corrected, if possible, the business continues as usual. The benefits, economic and non-financial, for implementing EDI system are discussed in more detail in Naudé, Holland and Sudbury (2000).

Conclusions and further research

This paper presented a conceptual preliminary framework to study the digitalization of business relationships. We pondered the impacts of IT and digitalization on business relationships. We argued that digitalization and IT have made some changes to how firms operate but the fundamentals of economics are still the same. The contribution of this study is the preliminary digital business relationship model developed to highlight the role of individual acts

and episodes. In a nutshell, by improving internal process with help of IT and by connecting to other business parties via IT business parties can be connected in a digital manner to form a digital business relationship. This study was an exploratory in its nature and thus is not without limitations. First and foremost the rather general model is not empirically tested and there exist some inadequacies in the relationships between the concepts especially in the temporal dimension. Further research includes elaboration and crystallization of the developed model and also the empirical validation of the model through comparative case studies.

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