Meta-Analysis of the Communication Component of E-Commerce in ASEAN

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Abstract

This study seeks to explain and understand how communication works in E-commerce by making a systematic review of related studies and researches that relate how communication works in E-commerce specifically in the aspects of media capabilities, production and use of message and communication performance. The researchers used meta-analysis. Meta-analysis was done in a modified manner choosing only 10 studies on E-commerce in selected ASEAN countries. This study found that most studies on E-commerce focus on media capabilities. Entrepreneurs and consumers in the ASEAN are concerned with capabilities of the channel of doing business transactions. There is a potential for doing more studies on message production and content in electronic commerce environments.

Keywords: e-commerce as communication

1.0. INTRODUCTION

What used to be face-to-face, real-time and real place trading are now trading done in space - that is the Internet space. Technology is often attributed to studies on electronic commerce. E-commerce or Electronic Commerce is a process of exchanging services, goods, or information using the Internet (Jantarajaturapath and Ussabawanitchkit 2009; Siviera; 2006). E-commerce allows business transactions and trading deals in real-time through electronic media and not necessarily in face-to-face environments. These transactions may range from placing orders, marketing, modes of payment, and modes of delivery, among others.

The relationship between E-commerce and Web 2.0 is an established claim. Web 2.0 is a term to describe the trend within the utilization of World Wide Web innovation and web design that aims to improve the inventiveness, data sharing, and most prominently the collaboration of the users. These ideas have prompted the improvement and advancement of electronic groups and facilitated administrations, such as social networking sites, wikis, blogs and folksonomies. The term Web 2.0 became remarkable after the first conference of O’Reilly Media Web in the year 2004 (O’Reilly, 2005). The credibility, viability, and transmission speed of Web 2.0 and its subsequent versions have inspired and given the impetus for businessmen and entrepreneurs to engage in business primarily through the internet. Likewise, engagement in E-Commerce has turned out to be challenging due to logistical concerns such as security and data protection (Fredriksson 2013; Fleenor and Raven, 2002), culture and infrastructure (Si, 2013; Fleenor and Raven, 2002), shipping and delivery cost (Fredriksson 2013).

Adopting E-commerce completely has been
difficult for small and medium enterprise (SMEs) due to the different needs of local and global business and the constant change of E-Commerce innovation. Through the years, the internet has provided local entrepreneurs with global access for their markets, thus boosting competitiveness in new levels. A customer can shop online, anytime, and anywhere through the use of Internet and electronic devices. One can look for something that he would like to obtain or buy through the use of the internet instead of physical transactions.

Using the communication lens as the substantive focus, this study argued that the starting point of electronic commerce is the communicative act and for which technology is one of the tools of the communication processes and where communication performance is made manifest in the commerce itself. There have been studies on media, tasks and communication processes anchored on the theory of media synchronicity, studies on computer-mediated communication but what this study seeks to investigate are narrative summaries on E-commerce specifically from a communication positioning.

2.0. THEORETICAL BACKGROUND

System Theory, first proposed by Ludwig von Bertalanffy in 1945, has been utilized for decades as a scientific approach in dealing how complex biological, physical, social, and economic systems work. A typical example of a system that adapts to the system theory is the Information System (IS). The IS as a subsystem operates with other subsystems of the business system to obtain the resources, maintain business processes, and generate the outcomes that constitute business performance (Lomerson et al, 2007). Being a subsystem of IS, EC utilizes appropriate information to attain customer’s loyalty, customer acquisition, value capture, and the optimization of a cost-saving channel (Epstein, 2004). The Internet has drastically influenced management in business. Industries, business, and markets are being transformed and now run with Information technology (IT). The Internet has become a global and powerful communication method to alleviate the processing and consummation of business transactions (Delone and McLean, 2004).

In Shannon and Weaver, communication is described as a linear, one-way process. The model presents five functions to complete the process and considers one as a dysfunctional factor, which is the noise. The model is designed to describe the effective communication between sender and receiver. The model deals with an information source, receiver, message, transmitter, channel, information destination, decode and encode, and all of it exists in the system of E-commerce (Shannon and Weaver, 1949).

Web 2.0 has come to rule the discourse that surrounds the WWW and networked information applications (Tredinnick, 2006). Web 2.0 guarantees a more engaging, more powerful, and more responsive user experience and
it appears to be ready to alter how we connect with information resources (Kristaly, Moraru, Sisak & Sando, 2008). The Internet, or particularly the Web, is a key ingredient in E-Commerce as we probably know today. The Internet and WWW provide the possibilities to expand the E-Commerce environment in the agreement cycle to empower new suppliers to benefit new customers electronically. The WWW enables B2C and B2B transactions. Using the Internet to enhance business is the real situation in the present generation.

Media Richness Theory (MRT) is a notable theory of communication media usage and preference in an organizational setting (Daft & Lengel, 1984, 1986; Daft, Lengel & Trevino, 1987). MRT is concerned with identifying the most suitable communication medium in dealing with equivocality and uncertainty (Daft & Lengel, 1986; Huber & Daft, 1987). This theory proposes that communication media can be leveled on a richness continuum based on their capability in handling uncertainty and equivocality. Less rich media (e.g., computer-mediated communication) are appropriate to tasks with a lack of information while media capable of sending “rich” information (e.g., face-to-face meetings) are appropriate to equivocal tasks (where there are several interpretations for information). E-commerce is the medium of choice for the buyers and consumers to perform a leaner task which is having a transaction (e.g., selling online and buying online).

Asynchronous or synchronous communication has long been perceived as an essential factor in its impact on interpersonal communication and teamwork (Burke and Chidambaram 1999; Walther 1996). All communication participants utilize few media synchronously to know if there is a communication with each other at
the same time (e.g., video conference, face-to-face communication, telephone conference). Other media are usually utilized asynchronously, so participants don’t operate in the same time (e.g., voice message, fax). In E-commerce, sellers, and consumers are asynchronous because there is no need for timing requirement in the transmission and which the beginning of each other character is individually signaled by the transmitting device. Research shows that individuals often attend to information asynchronously when they utilize electronic media synchronously (Miranda and Saunders 2003).

2.1.1. Main Objective

This study seeks to explain and understand how communication works in E-commerce by making a systematic review of studies and research that relate how communication works in E-commerce specifically in the aspects of media capabilities, production and use of messages and communication performances.

3.0. LITERATURE REVIEW

The contribution of SMEs towards national economies is significant, and undeniable, especially in the rapid growth that is currently being observed in developing countries around the world (Poorangi and Khin 2013).

There is a potential for those developing countries in achieving rapid and sustainable economic and social advancement by building a networked SME sector that has the capability of applying affordable yet effective ICT solutions and an economy based upon an ICT enabled (UNDP, 2004).

Compared to the large business counterparts, SMEs are slower to adopt innovation despite the evident benefits derive from E-commerce adoption. This is particularly the case of Indonesia and the other developing economies where there are factors that hinder the viability of utilizing e-commerce technologies such as poor telecommunication infrastructure (Sheth & Sharma, 2005; Wood, 2004), low average income of the population, the inadequate penetration of credit card (Hawk, 2004), as well as the barriers in culture (Hawk, 2004; Paul, 2002).

Also, in Vietnam, the implementation of E-commerce in SMEs is not easy. The very limited use of technology, the scarcity of capital, poor administrative expertise, the failure to hire and keep experts, the difficulties in the delivery of goods in both internal and external markets, the solid competition among SMEs and the problems of management procedures are recognized as barriers to impede economic development associated with SMEs (Bili & Raymond, 1993).

The EC adoption literature implies that in
developing countries, firms need to be internally and externally ready in order to adopt E-Commerce appropriately (Tan, 2007).

4.0. METHODOLOGY

The researchers used meta-analysis to derive answers. Meta-analysis is also known as research synthesis or quantitative reviewing. Meta-analysis is often mentioned as a large collection of analysis or statistical analysis that results from individual studies for the intention of combining the findings (Glass, 1976). The researchers only limit ten studies from the year 2013 to 2015 in selected ASEAN countries. Google Scholar was used as a search engine in gathering the data, and the result is only calculated in frequency count.

Meta-analysis is depicted as a review in which the results of all the studies included are comparatively alike, statistically that the outcomes are joined and scrutinized as though they were one studies. (Types of studies) In communication research, meta-analytic procedures provide improved alternative methods of integrating information collected from numerous studies.

In this study, meta-analysis synthesized the relationships between communication and E-commerce on three aspects that is, media capabilities used in E-Commerce, message production and communication performance and how these communication aspects operate and behave through time and in ASEAN countries.

Meta-analysis is the best available method to show how researchers have addressed the phenomenon of communication in E-commerce within a specific timeframe spanning the ASEAN nations. Hence it is with the meta-analysis that the results may be understood as this change over time. Meta-analysis is critical in dealing and contextualizing of new research findings on communication and E-commerce. (Johnson, et al., 2007)

In deriving the studies for each year, the researcher chose ten of the top hits that appear on Google Scholar after the keywords “E-Commerce and Communication” are keyed in; the researcher then opted to use only the top 10 hits then, based on the top 10 hits, clustered the study based on media capabilities, message production, and performance and use. The bases of these clusters are the constructs about media richness and synchronicity. Based on these theories and from a communication lens, the communication equation or environment in E-commerce is such that it begins with the capabilities of the medium or channel on which transaction takes place. The medium or channel is being viewed as critical components for transactions to be consummated between entrepreneur and consumer in different places and different timelines. Message production is considered only after the capabilities of the channels, and the transactional performance of these channels are favorable.

5.0. RESULTS AND DISCUSSION

The meta-analysis reveals that studies of
E-commerce were increasing from the year 2013 to 2015. It is clear that the majority of the studies focus on media capabilities (see Table 1) specifically in E-commerce adoption, the factors and barriers to its adoption. Also, some of the studies focus on the benefits it can bring and how to make improvements to fully adopt E-commerce in their business.

Table 2 shows that message production has the least study among all the components.
It remains constant from the year 2013-2015. It shows that message production is not the primary concern in adopting E-commerce.

Compared to the media capabilities and message production, the studies on communication performance increased in the year 2014 but decreased in the year 2015 (see Table 3). Majority of the studies are about trust and satisfaction of customers towards E-commerce. Some of the studies are about the usefulness and benefits of the E-commerce environment.

The selected ASEAN countries are developing countries, so with that, studies have been made about the factors and barriers that can affect its adoption. Businesses, especially the SMEs (Small and Medium Enterprises) are hesitant in adopting E-commerce for several reasons. One of them is the cost of its adop-
tion and inability of the IT solutions. Entrepreneurs and consumers in the ASEAN are concerned with the capabilities of the channel of doing business transactions.

Among the ASEAN countries, Singapore is leading in E-commerce especially the large enterprise because of its strong acceptance of it since it has enough resources and ability and leads the developing countries in increasing the studies on its adoption. Next to it is the message production, if more studies have been made, the entrepreneurs in these developing countries will be able to make improvements on how they can properly exchange information with their sellers. Hence, it can improve the communication performance that can lead to a better E-commerce environment for buyers and sellers in the selected ASEAN countries.

6.0 CONCLUSION

In this research, the result shows that the selected ASEAN countries are still struggling with the adoption of E-commerce in their businesses, especially the SMEs. In these developing countries, media capability is the first component to be considered since without it, a transaction can’t be made. Message production in E-commerce is not a priority in making business as long as a system has been made for the transaction. Thus, buyers are vulnerable to poor qualities since the information is not properly presented. Hence, there is a potential for doing more studies on message production and content in electronic commerce environments.

7.0. REFERENCES


