Developing a Website Usability Framework for B2C E-Commerce Success

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ABSTRACT
With the growth and proliferation of the internet, B2C E-commerce has grown across the globe. To reach the huge geographically spread customer base, organizations are opening web-based stores; as these organizations invest a lot of resources in this process, it is imperative that they measure the success of their E-commerce venture. Although much research has been done in the area of ascertaining factors that influence the adoption of E-commerce, little research has been conducted on post-adoption phenomenon of E-commerce success. The purpose of this study is to fill this gap. A conceptual model is derived after extracting elements of Technology acceptance model and expectation-confirmation theory. The model was then tested using data gathered from 297 online shoppers in India. As a result of an extensive review of IS literature 7 dimensions (4 first order and 3 intermediate) viz. System Quality, Trust, Extension Quality, Propriety of content, User satisfaction, Perceived usability and Intention to purchase were identified. Statistical analysis of the data revealed that all the intermediate dimensions viz. User satisfaction, Perceived usability and Intention to purchase and one first order dimension Trust significantly impacted E-commerce success. All of the first order dimensions significantly impacted one or the other intermediate dimension.

Keywords: Business-to-Consumer (B2C) E-Commerce, E-Commerce, E-Commerce System Success, STEP Model, Website Usability

1. INTRODUCTION
Rapid advancements in the field of information technology have enabled businesses to break traditional barriers and explore new opportunities in the realm of E-commerce. Grandon & Pearson (2004) define E-commerce in terms of purchasing and selling products or services through the medium of the Internet. Molla and Licker (2001) suggests that the most common and popularized use of E-commerce is to replace or enhance traditional market channels by opening Web-based storefronts. This type of E-commerce is commonly referred to as “Business to Consumer E-commerce” and has revolutionized retail and direct marketing systems to facilitate international business transactions by reducing the cost for both the producers and consumers.

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In order to do business on-line, it is important to have a well-designed and usable website that can attract consumers’ attention and increase their awareness. According to Donahue (2001), usability is important for all websites, but for E-commerce sites, usability is crucial in achieving and sustaining competitive edge. Though usability can benefit all software development organizations, perhaps nowhere is the relationship between usability and profitability as direct as in E-commerce as usability directly affects profitability, users are more likely to do business online with organizations whose websites are simple and usable as against those whose websites are complicated and difficult to use. Forrester Research (Manning, 1998) suggests: “Usability goals are business goals: websites that are hard to use, frustrate customers, forfeit revenue and erode brands”.

Palmer (2002) states that the success or failure of E-commerce enabled businesses typically depends on the usability and usefulness of the business’ website. Importance of website usability is simple and clear: when websites are easy to use, more people use them, gain trust as they increase their usage frequency, consequently transact, report greater satisfaction and ultimately are more likely to be loyal. Using Internet technologies organizations can reach the geographically spread customers to not only disseminate information about their products and services but also the opportunity of performing E-commerce transactions with them. As organizations using web technologies are spending huge amount of money, it is important for them to realize benefits from these investments, however this is not possible without an appropriate tool for measuring the success of their E-commerce venture.

As the concept of success is complex in nature, measuring it becomes a challenging task and hence deserves more attention from researchers interested in this phenomenon. As success is a multi-dimensional concept, its measurement is also expected to be multi-dimensional. Current research in this field is fragmented and discusses some aspects of E-commerce success. The objective of this study is to integrate the various independent and dependent variables into a comprehensive model for B2C E-commerce success from the user’s perspective. This instrument would be valuable to researchers and practitioners alike in designing, implementing and maintaining E-commerce websites.

2. CONCEPTUAL BACKGROUND

2.1. Literature Review on IS Success Models

Much of the research on B2C E-commerce has stemmed out of the research on Information System Success by DeLone and McLean (1992) in which they proposed a taxonomy and an interactive model for conceptualizing and operationalizing IS success. They identified six dimensions namely System Quality, Information Quality, Use, User Satisfaction, Individual Impact and Organizational Impact. They studied the impact of System Quality and Information Quality on use and user satisfaction and in turn their impact on individuals and organizations.

Later, Seddon and Kiew (1996) undertook a partial test of DeLone and McLean’s (1992) model of Information Systems (IS) success in small business and revised their model by introducing two major changes. Firstly they introduced an additional input variable called as “Importance of the SysTem”. This construct was introduced to enable researchers to control task importance. They also suggested that “systems that perform more important tasks are perceived as more useful, irrespective of the quality of the actual system”. A second change was the replacement of System Use with System Usefulness. The rationale for this change was that a useful system may not have a high level of use but could still be important in a specific task context.

Smithson and Hirschheim (1998) proposed a framework for evaluation of information systems in context of an outsourcing situation. They organized their framework into three “zones” of evaluation: efficiency, effectiveness,
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