DESIGN MODEL OF TECHNICAL FEATURES FOR A SOCIAL COMMERCE WEBSITE

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This dissertation is dedicated to my beloved late father, Ismail Bin Sulong, a former school teacher, who throughout his lifetime engraved the wall of my heart the importance of education. As his daughter, it is honored to be graced by his presence whose example will forever inspire my human experience.

Al-fatihah.

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ABSTRACT

The shift of electronic commerce to social commerce draws tremendous opportunities for today's retailers. Social commerce website is one of the prominent social commerce mediums that harnesses the social activities while shopping in online environment by leveraging Web 2.0 and social media. The effectiveness of a social commerce website is determined not only by the products or how well the website is marketed, but also by its rendition of technical features' in terms of functionality (functional and non-functional). However, this particular area of social commerce is often overlooked especially when it comes to non-functional features. Under this circumstances, this study aims to analyze and propose technical features for social commerce website in terms of functionality. Based on the proposed technical features, a proposed design model is constructed. For evaluation, three different questionnaires were conducted for collecting data involving experienced social commerce users and experts on this area. The aim of the evaluation is to validate the proposed technical features and design model to ensure that they are accordance to the user's expectation. Based on the results, all the proposed technical features were validated positively, thus, acceptable for this study. As for the design model, a slight change has been made based on the input by the experts for improvement. In having them applied as guideline while designing a social commerce website, hopefully this research will help researchers and practitioners to grasp the key elements in during the decision making.

ABSTRAK

Peralihan dari era perdagangan elektronik kepada era perdagangan sosial telah membuka peluang keemasan kepada para peniaga pada masa kini. Laman web perdagangan sosial merupakan salah satu medium perdagangan sosial popular di mana ia menggalakkan aktiviti sosial antara pengguna semasa membeli-belah secara atas talian dengan memanfaatkan Web 2.0 dan media sosial. Untuk mengukur keberkesanan sesebuah laman web perdagangan sosial, ia bukan sahaja ditentukan produk atau keberkesan pemasaran semata-mata, malah ia juga ditentukan oleh ciriciri teknikal dari segi kefungsian (fungsian dan bukan-fungsian). Walau bagaimanapun, kefungsian laman web perdagangan sosial ini sering dipandang ringan terutamanya dari aspek bukan-kefungsian. Oleh itu, kajian ini bertujuan untuk menganalisis dan mencadangkan ciri-ciri teknikal untuk laman web perdagangan sosial dari aspek kefungsian. Berdasarkan ciri-ciri teknikal tersebut, sebuah cadangan model rekabentuk dibina. Untuk penilaian, tiga soal selidik yang berbeza telah dijalankan untuk mengumpul data di mana ia melibatkan pengguna berpengalaman dan juga pakar dalam bidang ini. Tujuan penilaian tersebut adalah untuk memastikan ciri-ciri teknikal dan juga model rekabentuk yang dicadangkan adalah bertepatan dengan kehendak pengguna. Berdasarkan keputusan penilaian yang diperolehi, semua ciri-ciri teknikal tersebut telah disahkan dengan positif dan boleh diterima pakai untuk kajian ini. Bagi model reka bentuk, sedikit perubahan telah dibuat sebagai langkah penambahbaikan berdasarkan input oleh para pakar .Diharap, dengan mengaplikasikan hasil kajian penyelidikan ini, ia dapat dijadikan sebagai garis panduan semasa merekabentuk laman web perdagangan sosial dengan membantu para penyelidik dan industri memahami unsur-unsur penting dalam membuat keputusan.

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LIST OF ABBREVIATIONS

UTM - Universiti Teknologi Malaysia

B2C - Business-2-Customer

C2C - Customer-2-Customer

SPSS - Statistical Package for Social Science

ICT - Information and Communication Technology

WOM - Word-of-Mouth

IBM - International Business Machines

CHAPTER 1

INTRODUCTION

1.1 Research Overview

In digital economy, the dawn of web 2.0 technologies and social media has transformed electronic commerce to social commerce as a new paradigm (Busalim and Hussin, 2016). With a combination of economic, social, and technological aspects, social commerce has dynamic characteristics that drawn attentions from various research disciplines including marketing, information systems, and sociology (Zhou et al., 2013).

As social commerce grows, Khan (2016) has stated, "2015 was one of the biggest years for electronic commerce around the world, and social media had a big part in it. Out of the total global electronic commerce sales, more than \$30 billion were generated directly from different social networks, an increase of \$10 billion from 2014, and more than \$25 billion from 2011". These statistics reflect a rapid growth in online shopping activities showing that a lot of credits should be given to social media.

Social commerce can be defined as a subset of electronic commerce that leverages social media to boost up transactions by stimulating consumers to greater social activities while shopping in online marketplace (Liang and Turban, 2011). Social activities in this context can be said as the action of consumers mingling and

with coming into contact or joining other consumers out of curiosity or concern about the products. They can interact and socialize with each other by making comments, share product information, like or dislike products, make useful reviews or recommendations and many more. Halji and Feartherman (2017) stated that, "consumers and brand fans in particular have become quite 'vocal' in expressing their likes, dislikes, evaluations and branded experiences" through social media. This shows that, social activities are very important to let consumers become more expressive about what they think toward products.

By having opinions expressed and shared, consumers can have enough information to make smarter choices when buying products. Eventually, trust and a sense of loyalty towards the brands and products are built because the exchanged information was really based on true experiences thus reliable as this can influence the consumer's decision to purchase the product (Curty and Zhang, 2011). As for retailers, by encouraging social activities amongst consumers in their online business plan, many benefits can be gained by them and according to Smith (2017), the benefits are as follows:

- Promotes higher numbers of conversation about their products and brands.
- Increase their product and brand's popularity.
- Create better marketing strategy to reach new customers.
- Build smarter inventory and product development options by leveraging consumers' self-generated information.
- Discover new products and awareness by personalizing the consumer experience based on known preferences.

With all the benefits mentioned, social commerce website is a very popular choice nowadays. It acts as a medium to make the social shopping business and transactions possible in online marketplace through web browser. As we know, any social commerce website that offers good products and well marketed is likely preferred by consumers. However, the success of social commerce websites is not only

determined by the products offered and how well the website is marketed, but also by the technical features offered to both customer and the website owner (Smith, 2017).

Technical features of social commerce are software artefacts that are integrated into an application and provides a specific social media functionality to promote interactions and exchanges among consumers (Curty and Zhang, 2013). In a social commerce website, technical features can be considered as one of the key players of social commerce (Huang and Benyoucef, 2013a) to establish the intended online social shopping environment. Amongst them are rating, review tool, share button, like button, social wish list, activity feed, and many others (Curty and Zhang, 2013; Huang et al., 2012). Somehow, a social commerce website that equipped with good and proper technical features is likely preferred because it helps them shopping and socialize effortless for example, with helpful features and user friendly features.

Thus, as a business owner, it is important that they have the right knowledge about what technical features a social commerce website should have. Before diving into a social commerce website project, they need to think carefully about the features needed. As to stay competitive, electronic commerce companies are expected to evaluate and chose the appropriate design of their social commerce websites. This strategic process is crucial to provide the ideal platform for elevating the consumer's experience as it will engage, refreshing and deepening relationships that will exhilarate the consumers purchase behaviors and ended buying the products or services. Therefore, this study comprehensively explores the literature on technical features of social commerce website and identify the technical features.

Based on the identified technical features, a design model will be developed to provide some insights of technical features for social commerce conceptually. In this chapter, which acts as an introduction to the study, provides information about the chosen subject, problem background, problem statements and research objectives. Further on, the scope of the study and significance of this study will be presented.

1.2 Problem Background

A new electronic commerce stream named social commerce that is empowered by Web 2.0 technologies, enables consumers to exploit the power of the social web to make more accurate decisions (Rad and Benyoucef, 2011). By leveraging social media, retailers are able to attract consumers using variety of dynamic platforms that are more engaging, interactive, lively, and community-building (Halji and Featherman, 2017). For brands to grow, empowering the voices of consumers and shopping experience is vital to employ an influence on brands and sales thus, bring success.

However, the success of social commerce website is determined not only by the products or prices offered and how well the website is marketed, but also by its technical aspect. Thus, for enabling commerce and social features together in online platform, technical features play a significance role to ensure the social shopping experience possible in online marketplace and deliver its intended purpose (Huang and Benyoucef, 2013b). For this reason, there are a wide range of technical features can be chosen and integrated into social commerce platform. Among them are rating and review tools, share and like buttons, social wish lists, social login buttons, activity feeds, and many others (Curty and Zhang, 2013; Huang et al., 2012).

With the right tools used in the right way, sales can be elevated with minimum marketing cost as high quality functionalities on electronic commerce websites may encourage purchases of specific products from specific merchants by linking them to customer networks (Rad and Benyoucef, 2011). Thus, evaluating and choosing the appropriate technical features for social commerce website is notably important to provide the ideal features to boost the consumer's experience that will exhilarate the consumers purchase behaviors and ended buying the offered products or services.

Therefore, understanding the significance of social commerce technical features integration into a social commerce website and which potential features will deliver the highest impacts on influencing consumer's behavior is absolutely a must.

Unable of doing so, could lead them to fall from competition. However, selecting the right technical features to accommodate the consumer's needs as well as making social commerce websites socially rich has its own challenges. The right strategies are needed to be recognized and applied at the right purchase decision making stage where deep understandings and knowledge are needed (Rad and Benyoucef, 2011). In addressing these challenges, many studies have explored and proposed a number of social technical features for social commerce websites.

Yet, most of the previous studies tend to propose the features in a general manner without specifying them in terms of functionality point of view whether they are functional or non-functional features. This is important to describe the desired key features (functional) of a system as well as its behaviors (non-functional) during the design phase of a website development life cycle (Shah and Patel, 2016). In other words, functional features describe what a system should do, non-functional features define how well it needs to function (Matsugu, 2015). Thus, both must be defined and emphasized altogether during specifying the features during the design phase.

As far as this concerned, many are less aware and do not recognize the importance of non-functional requirements (Shah and Patel, 2016). In this sense, many studies emphasize the functional features only without describing the non-functional features as needed for many reasons. According to Matsugu (2015), talking about what users will see and how they will interact is more exciting rather than talking about non-functional features that talks about access rights, system backups, and performance. Plus, non-functional requirements tend to be more technically oriented that functional features (Matsugu, 2015) and considered as boring. As a result, many often underemphasized non-functional features as this could disrupt effective social commerce technical strategies. Therefore, both must be specified altogether as a critical prerequisite when designing a successful social commerce website, because ultimately, they shape the quality of the final product (Matsugu, 2015) and bring soul to the social commerce website.

To demonstrate the related mechanism needed to design technical features for social commerce website in a better manner, a design model is highly required to fill the need. In a nutshell, design model is a simplified representation of proposed structure for the original details that can help and guide us to understand the establishment of a real subject (Estefan, 2008). Thus, a design model of technical features for social commerce website is needed to understand the technical features better. However, there are little studies in literatures mentioned about design model for technical features in social commerce world, let alone specifying them in terms of functional and non-functional. So far, the models were likely emphasized the functional features and only mentioned the non-functional briefly.

Hence, this study aims to fill the gaps by exploring the potential technical features of a social commerce website should have in terms of functionality (functional and non-functional) aspects that meet the social commerce characteristics. Based on the identified technical features, a design model will be proposed to provide some insights of technical features for social commerce conceptually. With this effort, it is hoped that this study will provide the solutions and contribute to those that in need.

1.3 Problem Statement

In understanding and addressing and the underlying issues, the main research question of this study is "How to construct a design model of technical features in terms of functionality (functional and non-functional) for social commerce website?". For supporting the main research question as mentioned above, sub questions are posed as bellows:

- 1. What are the technical features in terms of functionality that a social commerce website should have?
- 2. How to construct a design model of technical features in terms of functionality for a social commerce website?

3. How to evaluate the proposed design model of technical features in terms of functionality for a social commerce website?

Based on the above statements, this study will identify the technical features in terms of functionality that a social commerce website should have and construct a design model based on the identified features. Then, the design model will be evaluated to ensure the validity of the model. Thus, the objective of this study are defined in the next section.

1.4 Research Objectives

To answer the research questions mentioned earlier, there are three objectives that have been identified for this study as follow:

- 1. To identify the technical features in terms of functionality that meet the social commerce characteristics.
- 2. To propose a design model of technical features in terms of functionality for a social commerce website.
- 3. To evaluate the proposed design model of technical features in terms of functionality for a social commerce website.

1.5 Scope of the Study

This study focuses on technical features in terms of functionality for social commerce website that add social media-based features only.

1.6 Significance of the Study

The contributions of this study will bring various significances for both research and practice where this study explored the significance relations between social and technical aspects in digital economy world. In this sense, the integration of proposed technical features into a social commerce website can positively influence the consumers' purchase behaviors thus strengthening the business values. With the proposed design model, this study helps electronic commerce companies and web designers to understand the important elements of technical features conceptually in terms of functionality as well as identifying and selecting the right social commerce technical features and exploit them the right way.

Providing shopping experiences through the proposed technical features and design model will also bring many important benefits such as stimulating user engagement, and strengthening business relationships with users. Thus, it may help them to engage better with customers as well as open up better opportunities. For research, this study deepens the knowledge in the area and thus provide a foundation for future research.

1.7 Organization of Thesis

Here, an overview of the research order is presented. This research starts with chapter one by introducing the study. In this chapter, the research problem is also introduced. Following, in chapter two, the literature review is conducted and elaborated where a list of proposed technical features is presented and a theoretical design model is developed which presents the elements of technical features conceptually as the preliminary findings. Next, the methodology used to design the study are explained in chapter three where data collection and analysis process are done. The findings from chapter four are then presented in chapter five. In that chapter, the results coming from analyzing the data are presented. Chapter six which is the last

chapter, made of discussion, the limitations and the recommendations of the research. Finally, the research comes into summarization and conclusion.

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