THE USE OF ICTs AND OTHER SOCIAL MEDIA, AND THEIR EFFECTIVENESS IN DISSEMINATING HEALTH-RELATED INFORMATION ABOUT CHRONIC ILLNESS: A STUDY ON SERIAN DISTRICT, SARAWAK

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Corporate Master in Business Administration
2012
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A thesis submitted in fulfillment of the requirements for the degree of Corporate Master in Business Administration

Faculty of Economics and Business
Universiti Malaysia Sarawak
2012
Statement of Originality

The work described in this Final Year thesis, entitled

"THE USE OF ICTs AND OTHER SOCIAL MEDIA, AND THEIR EFFECTIVENESS IN DISSEMINATING HEALTH-RELATED INFORMATION ABOUT CHRONIC ILLNESS: A STUDY ON SERIAN DISTRICT, SARAWAK"

is to the best of author’s knowledge that of the author, except where due reference is made

6 July 2012

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ABSTRACT

THE USE OF ICTs AND OTHER SOCIAL MEDIA, AND THEIR EFFECTIVENESS IN DISSEMINATING HEALTH-RELATED INFORMATION ABOUT CHRONIC ILLNESS: A STUDY ON SERIAN DISTRICT, SARAWAK

By

Teddy anak Edwin Chapun

(This study was carried out in order to understand about the use of ICTs and other social media, and their effectiveness in disseminating health-related information about chronic illness among the Serian community in Sarawak.) The objectives of the study are as follows. Firstly, this study attempts to profile consumer health information in obtaining health-related information in Serian District, and in what ways were they utilize ICTs and other social media to seek, obtain and consume health-related information. Secondly, it identifies some factors that can influence the effective utilization of ICTs and other social media in the context of these consumers. The factors that have been identified are: socio-demography; infrastructure’s accessibility; skills and knowledge; attitude towards health; and creative information delivery. Thirdly, this study aims to provide pragmatic recommendations to relevant agencies and stakeholders including health marketers and campaigners about the effective ways of capitalizing on ICTs and other social media to benefit the Serian District population and to encourage them to become active consumers in seeking, obtaining and consuming health information.)
This study deployed a survey method to obtain data. A set of questionnaire survey was distributed to 200 respondents around the Serian District. Out of this, only 193 responses were analyzed. Overall, the outcomes from the survey revealed that a majority of the respondents reported that they do not actively seek, obtain and consume health information via the internet and website applications and had little awareness about any health campaigns including chronic illness around the Serian District. Further, a majority of them reported that they have an online social network account such as Facebook. However, the application of such forms of social media was only limited on the social related activities. In other words, a majority of the respondents did not take advantage yet or reported initiatives to actively seek health-related information through social media.

The survey findings also show that the identified factors such as infrastructure’s accessibility, skills and knowledge, attitude towards health and creative information delivery can influence the effective utilization of ICTs and other social media in the context of consumer health information in obtaining health-related information in Serian District. With regards to sources to obtain health-related information, this study found that, in addition to the use of traditional mode or channels such as face-to-face consultation with doctors or other health practitioners, advice from family or friends, radio, television and printed materials, the respondents reported that they do obtain information related to health using the internet and web applications. Based on the research findings, this study further highlights several recommendations and possible initiatives to be undertaken by the relevant agencies to benefit the communities of Serian District with regard to effective use of ICTs and social media for seeking and obtaining health-related information.
ABSTRAK

PENGGUNAAN ICT DAN MEDIA SOSIAL LAIN, SERTA KEBERKESANAN
DALAM MENYEBARLUASKAN MAKLUMAT BERKAITAN KESIHATAN
MENGENAI PENYAKIT KRONIK: KAJIAN DI DAERAH SERIAN, SARAWAK

Oleh
Teddy anak Edwin Chapun

Kajian ini telah dilakukan untuk memahami tentang penggunaan ICT dan media sosial, serta keberkesanannya dalam menyebarkan maklumat berkaitan kesihatan mengenai penyakit kronik, khususnya untuk komuniti Serian. Terdapat tiga (3) objektif mengapa kajian ini dilaksanakan. Pertama, kajian ini cuba untuk memprofi konsumer maklumat kesihatan dalam mendapatkan maklumat berkaitan kesihatan di Daerah Serian dan bagaimanakah caranya mereka memanfaatkan ICT dan media sosial dalam mencari, mendapat dan menggunakan maklumat berkaitan kesihatan. Kedua, kajian ini dilaksanakan untuk mengenalpasti faktor yang boleh mempengaruhi keberkesanan penggunaan ICT dan media sosial dari perspektif konsumer. Faktor yang telah dikenalpasti dan dicadangkan adalah faktor sosiodemografik; faktor akses kepada infrastruktur, faktor kemahiran dan pengetahuan, faktor sikap terhadap kesihatan dan faktor kreativiti dalam penyampaian maklumat. Ketiga, kajian ini dilaksanakan untuk menggariskan cadangan yang pragmatic kepada agensi berkaitan mengenai cara efektif penggunaan ICT dan media sosial yang dapat member faedah kepada komuniti di Serian dan menggalakkan mereka untuk lebih aktif dalam mencari, mendapat dan menggunakan maklumat berkaitan kesihatan dengan sebaiknya.

Berdasarkan penemuan kajian, beberapa cadangan pragmatik telah digariskan untuk perhatian pihak atau agensi berkenaan dalam member manfaat kepada konsumer maklumat kesihatan di daerah Serian dalam keberkesanan penggunaan ICT dan media sosial untuk mencari, mendapat dan menggunakan maklumat berkaitan kesihatan.
ACKNOWLEDGEMENT

First among all, I would like to praise to God, finally I had managed to complete my thesis which part of this course requirement.

It is such a joyful and happy feeling, I would like to wish thank you very much to my supervisor, Dr. Rohaya Mohd Nor, which is the most important person in completion of this thesis. To her, I must sincerely say that it is would not have been possible without her ideas, guidance, advise, support and commitment in ensuring that I manage to complete this thesis successfully.

With this opportunity, I also must express my gratitude and appreciation to Serian’s hospital, clinics, villages and public communities in Serian District that willingly to allow and participate in giving the feedback on the questionnaire survey distributed which had produce significant impact to my project results. Not forgetting, the appreciation also goes to my friends that helping me a lot in numerous ways in doing this project and it is will be always remembered for the efforts, ideas and suggestion given by them in order to make the project more proper.

Last but not least, the support, love and blessing from my family have always been there to ensure that I completed successfully this project, even though there are too many obstacles that I had been through but at the end I manage to overcome it. Once again, I would like to wish thank you very much for the assistance, guidance, advice and support from you all.
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CHAPTER 1
INTRODUCTION

1.0 Introduction

Consumer health information is defined as "any information that enables individuals to understand their health and make health-related decisions for themselves and families" (Patrick and Koss (1995) cited from Khalil (2001, p84)). This includes information targeted for: individual and community-based health promotion and improvement; self-care practice; shared decision making such as between doctor and patient; patient education and rehabilitation; effective use of the health care system including selecting insurance or a provider; and the development and role of peer-group support ((Patrick and Koss (1995) cited from Khalil (2001, p84)). In general, health information is available in various healthcare settings as well as locations such as home, school, library, workplace, store, public spaces and other open areas that are accessible to public. In the context of today's era where ICTs permeate our day to day routines, there are abundance of health related information can be found through the internet and website applications provided by healthcare practitioners, government agencies, NGOs, the World Health Organization etc.

Whilst many have acknowledged about the role of ICTs and other social media can be leveraged to effectively disseminate health-related information to consumer health information, yet there have been very little efforts to study this area of research in the Malaysian context. In general, the advantages of leveraging ICTs and the new forms of
media, i.e., social media applications, are many. One cannot argue that the use of ICTs and social media to disseminate health information can lead to speedy delivery and access of information. It also can enable creative health information content development and delivery that can easily being customized to the needs of the consumer health information. The use of ICTs and social media also can permit important health information to reach a wider audience and across geographical regions and time zone. It is also cheaper to disseminate information via these communication platforms. Several studies such as by Gurstein (2000; 2005), Felician (2003) and Myers (2003) further highlighted that the use of ICTs can lead to dissemination of healthcare information, bringing the patients closer to care givers and able to bridge the social and economic gaps that divide the rural and urban communities. The World Health Organization (2004) also agreed that the technology including ICTs is the backbone for the health sector in communicating and providing their services. ICT infrastructures now are the critical elements to improve the healthcare quality and safety (Institute of Medicine, 2000).

Despite these identified benefits, the challenges are still about understanding the consumer health information and finding ways to encourage them to be an active health information seeker via the use of ICTs and social media applications. From the research standpoint, many efforts are still needed to examine the consumer health information in the context of developing country such as Malaysia. To date, many available research findings are largely contained within the context of developed countries or within the setting of urban or cosmopolitan lifestyle. More research is needed to examine about this area of interest in the context of rural communities.
In general, this study aims to respond to this limitation in the literature. It investigates the use of ICTs and other social media, and their effectiveness in disseminating health-related information about chronic illness in the context of Serian District population.

1.1 Problem Statements

In Malaysia, many initiatives have been undertaken by the government to promote the use of ICTs and to reduce the digital divide between the rural and urban communities. One significant effort in Malaysian history was the initiatives by the government to launch the Multimedia Super Corridor (MSC). In the context of supporting health, the MSC initiatives include a comprehensive ICT and multimedia development projects, telehealth and e-Health projects, e-Government and several other initiatives that aim to integrate Malaysian healthcare consumer and meeting the needs via the use of ICTs. In 2001, the government continues to roll-out ICT infrastructure and facilities to reduce the digital divide between the urban and rural communities. Systematic efforts and initiatives have been undertaken to provide the internet access facilities and now, the internet access has reached schools, libraries and clinics even in some rural areas of Sarawak. Figure 1.1 shows the evidence about the growing penetration rate of Malaysia in 2011, in which, Malaysia is ranked within the top 10 of the internet users in Asia.
As argued before, despite this positive development with regard to ICT use and infrastructure, research has yet determine the effective use of ICTs and social media applications in the context of consumer health information. From the standpoint of Sarawak, the issue of digital divide is nothing new and studies have noted about the great challenges for Sarawak to have effective healthcare delivery due to its geographical region and remote areas that have poor road condition and facilities. Whilst the broadband has penetrated Sarawak, yet it has been acknowledged that the quality of access is relatively poor as compared to access quality in West Malaysia. Populations from major cities of Sarawak such as located in Kuching, Sibu, Miri and Bintulu do enjoy the sufficient internet access.
Framing from this context of problem, this study proposed to focus on Serian District to examine the use of ICTs and other social media, and their effectiveness in disseminating health-related information about chronic illness in the context of Serian District population. This study also attempts to highlight the needs to focus on chronic illness in the context of attracting consumers to seek, obtain and consume health-related information through ICTs and other social media applications. It is no doubt that chronic illness is one of the major health issues and concerns in Malaysia. The growing rate of sufferers of chronic health diseases is largely due elements such as stress, unhealthy lifestyle, food consumption and others. Based on the 2008 Statistics of Census of Deaths by the Department of Statistic of Malaysia, heart disease was reported to be one of the causes of mortality which 14.5% of deaths in Peninsular Malaysia, 5.2% of deaths in Sarawak were caused by heart diseases and Sabah had recorded about 7.4% of deaths due to cerebrovascular disease.

1.2 Research Objectives

The objectives of the study are as follows:

1.2.1 General Objective

- This study investigates the use of ICTs and other social media, and their effectiveness in disseminating health-related information about chronic illness in the context of Serian community in Sarawak.
1.2.2 Specific Objectives

Meanwhile the specific objectives of this study are as follows:

- To profile the consumer health information that consumes health-related information through the use of ICTs and other social media in Serian District.
- To identify the influential factors that can contribute to the effectiveness of ICTs and other social media use in disseminating the health-related information to consumer health information in Serian District.
- To provide recommendations for relevant agencies with regard to the effective use of ICTs and other social media applications in disseminating health-related information targeted for rural communities of Sarawak.

1.3 Research Questions

The following are the constructed research questions to achieve the objectives of the research.

Research Question 1 (RQ1):
What is the profile of consumer health information in Serian District, and in what ways these consumers use ICTs and other social media to seek, obtain and consume information?

Research Question 2 (RQ2):
What are the factors that can influence the effective utilization of ICTs and other social media?
Research Question 3 (RQ3):

What are the possible initiatives to improve the dissemination of health-related information through ICTs and other social media to be undertaken by relevant agencies, and to further encourage active participation of rural health consumers of health information?

1.4 Significance of the Study

The importances of this study are as follows:-

Firstly, from the standpoint of research, this study is important to address the limitations in the literature. As highlighted before, more research in this area are needed to enhance the understanding about consumer health information from the rural areas. This can reduce further biases with regard understanding of these consumers and meeting their needs.

Secondly, from the standpoint of healthcare agencies and institutions, campaigners and NGOs, the findings of this research can be very beneficial. More importantly, the findings from the study can further illuminate some effective ways of engaging ICTs and social media applications by these agencies to increase understanding and awareness about health issues targeted for rural communities.

Thirdly, from the standpoint of policy makers, the findings of the research are importance to establish understanding about the effective use of the available infrastructures and facilities that can create benefits to rural communities. This study can further highlight
whether the communities are actively engaged in seeking health-related information using ICTs to enhance their understanding about health issues.

1.5 Empirical Setting

Focus and Scope of the study

The population of Sarawak according to the 2010 Distribution of Population by State was recorded at 2,420,009. It was noted that the population growth for 10 years period was 8.78%. The declining rate of population growth had been noted, and many factors can contribute to this.

The Serian District has been chosen for the empirical setting of this research which Serian District is located about 60 kilometers from Kuching City. The district covers an area of 2,039.9 square kilometers (based on Wikipedia website). The district has more than 200 villages and recorded 90,763 populations in 2010 (Jabatan Perangkaan Malaysia, 2010). The majority of the population is Bidayuh (65%), and the followed by other ethnic groups that are Iban, Chinese and Malays. Serian District is also suitable for the study because of its accessibility to ICT infrastructures and health facilities such as a hospital. Serian Hospital and a small number of private clinics are available to provide health facilities. Ramli & Taher (2008) acknowledged that efforts to tackle the management of chronic illnesses among the rural populations including Serian are still remains fragmented, inefficient and poorly coordinated. Whilst it can be easily observed that the use of traditional campaign methods such as via poster and signboard is quite visible in Serian, yet no systematic study has been
undertaken to examine whether such methods are effective to disseminate the health-related information about chronic illness among the Serian communities.

Due to time and financial constraints, the target respondents were randomly chosen around the Serian town area and nearby villages. Further details about this can be found in the Methodology Section.

1.6 Research Framework

Figure 1.2 shows the model of the study. The study identifies four (4) factors as independent variables which are: infrastructure’s accessibility, skills and knowledge, attitude towards health and creative information delivery. One dependent variable is identified which is effective use of ICTs & other social media mechanisms. The following hypotheses were developed and proposed.

Hypothesis 1 (H1):
There is a relationship between infrastructure’s accessibility factor and effective use of ICTs and others social media.

Hypothesis 2 (H2):
There is a relationship between skills and knowledge factor and effective use of ICTs and others social media.
Hypothesis 3 (H3):
There is a relationship between attitude towards health factor and effective use of ICTs and others social media.

Hypothesis 4 (H4):
There is a relationship between creative information delivery factor and effective use of ICTs and others social media.