

Technological Factor and Social Media Marketing Adoption Among SMEs in Kelantan

Muhammad Faizal Samat¹, Mohd Nor Hakim Yusoff², Mohamad Ismail², Norazlan Annual¹ and Mazlina Mamat¹

¹*Faculty of Business Management, Universiti Teknologi Mara (UiTM) Kelantan, Malaysia*

²*Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia*
faizal951@kelantan.uitm.edu.my

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Abstract: Social media becomes popular among Internet applications due to increasing numbers of users' presence online. However, past studies showed the use of social media as marketing tool in SMEs is still in its infancy due to their lack of knowledge and technical skills about technology adoption. This study was conducted to identify the technological factors (compatibility, cost effectiveness and interactivity) that lead to the adoption of social media marketing among SMEs. Theoretical framework of this study was derived from Unified Theory of Acceptance and Use of Technology (UTAUT) that figure out whether the user were able to adopt the new technologies. The study was carried out in Kelantan using 134 respondents and analysed using SPSS version 22.0. Overall, the study provides supportive evidence on the factors influencing social media marketing adoption and the results could help businesses to formulate better strategy in order to implement the social media marketing.

1 INTRODUCTION

Social media differs from traditional/industrial media in many aspects such as quality, reach, frequency, usability, immediacy and permanence. Consumers not only obtain information about the product by clicking within the Internet advertisement but they can also place an order and download some products such as e-books to their computer (Haque, Al Mahmud, Tarofder, & Ismail, 2007). In regards to internet usage of social media as of 2012, Cheong, Fischer-Nielsen, Gelfgren, and Ess (2012), internet users continue to spend more time in social media than any other sites. In addition, there has been an increase in mobile social media which has created new opportunities, in particular, for businesses, which are able to utilize social media for marketing research, sales promotions, and customer relationship development among other activities.

Mangold and Faulds (2009) stated that the 21st century is witnessing the explosion of internet-based messages transmitted through social media. They have become a major factor in influencing various

aspects of consumer behavior including awareness, information acquisition, opinions, attitudes, purchase behavior, and post-purchase communication, satisfaction, and evaluation.

1.1 Problem Statement

Social media ranks among the most popular Internet applications and these include Facebook and Twitter among many others, which offer users the opportunity to get connected with each other to share their activities of common interest (O'Keefe & Clarke-Pearson, 2011). Surveys done by the Stats (2016) showed that 21,090,777 Malaysians have become active users of social media, which has also become the medium for businesses to advertise products and services since it plays a significant role in Malaysia's advertising market. SMEs are expected to improve business performance and competitiveness through the use of Internet-based applications (Shang, 2014). Overall, SMEs are expected to be significant users of the Internet and social media. Although access to social media has

improved, engagement and use of the Internet is still at low levels within small firms (Shang, 2014).

1.2 Objectives

The objective that guided this study was to explore the potential relationship between technological factors and social media marketing adoption among SMEs.

2 LITERATURE REVIEW

2.1 Social Media Marketing

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2.2 Technological Factor

Advances in technology make it possible for many businesses to operate either completely online or partially online. Creating an online business is done by building a website and combining it with a business system. The costs for conducting business online from a website are minimal compared to costs incurred with a physical business location. However, brick-and-mortar businesses also find it convenient to conduct some of their operations on the Internet. Technology also plays a role in helping companies create closer working relationships.

Today's business world has been deeply influenced by social media and the application of social media in business is widespread. According to El-Gohary (2012), recent research into social media adoption and use has been motivated by the desire to predict factors which can lead to better business performance. Alam and Noor (2009) in their study found that SMEs nowadays are increasingly using and adopting social media in their business.

There are many factors that associated to technology. For this study, interactivity, cost effectiveness and compatibility have been chosen as to measure technological factors. Past studies have found that the planning and usage of data frameworks considers the fruitful connection between humans and innovation as a key element (Lee & Kozar, 2004; Shillair et al., 2015). Among the different planning qualities, interactivity emerges as a key and recognized variable that affects clients' reaction to new innovations including sites (Agarwal & Venkatesh, 2002; Ainin, Parveen, Moghavvemi, Jaafar, & Mohd Shuib, 2015; Jiang & Benbasat, 2007). Handayani and Lisdianingrum (2011) explored appropriation and utilization of Facebook in two Indonesian SMEs, and found that Facebook can be utilized as an effective free Internet promotional platform to reach a wide segment of the market. Therefore, it can be hypothesized as:

H1: The greater the interactivity of social media, the more likely social media marketing will be adopted by SMEs.

Rigby and Bilodeau (2015) had discovered critical relationship between cost and adoption of technology. In addition, Genç and Öksüz (2015) observed that cost effectiveness is a vital variable in the selection of new technology. Therefore, it can be hypothesized as:

H2: The greater the cost effectiveness of social media, the more likely social media marketing will be adopted by SMEs.

According to Gutierrez, Boukrami, and Lumsden (2015), compatibility is important factor in adopting of technology. However, according to Dwivedi, Papazafeiropoulo, Ramdani, Kawalek, and Lorenzo (2009), compatibility is irrelevant in calculating the reception of business frameworks. From these arguments, it can be hypothesized as:

H3: The greater the compatibility of social media, the more likely social media marketing will be adopted by SMEs.

2.3 Linking the Technological Factor and Social Media Marketing Adoption among SMEs

The research framework for the study at hand was derived from Unified Theory of Acceptance and Use

of Technology (UTAUT). UTAUT is a technology acceptance model introduced by Venkatesh, Morris, Davis, and Davis (2003) that try to explain the degree of acceptance of the use of information technology. This theory figure out whether the user will be able to adopt the new technologies. UTAUT consists four main factors which are performance expectancy, effort expectancy, social influence and facilitating conditions that will influence the dependent variables which are behavioral and usage, however, for this study, only a part of the theory being used which are facilitating conditions (technological factors) that will influence the behaviors which are adoption of social media marketing.

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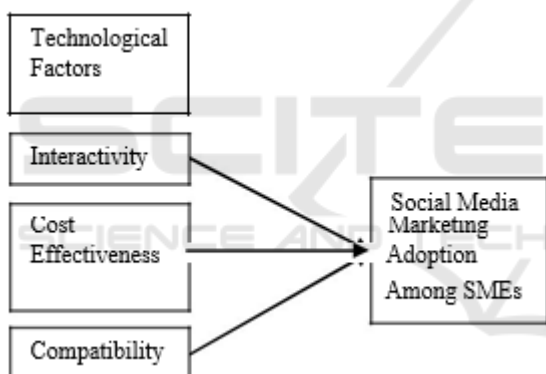


Figure 1: Theoretical framework.

3 METHODS

This study used quantitative approach to test the hypothesis in order to get reliable results. The study was conducted in the East Coast Region of Peninsular Malaysia which is Kelantan. The main tool to collect the data was questionnaires and 150 respondents were selected to answer the questions. The study used non-probability sampling, which is judgemental sampling. The basic criterion to be become the respondents of this study was they must own a business in Kelantan and applied social media as part of their operation. After the major data collection, 134 completed questionnaires were returned and the raw data was manually keyed in through SPSS version 22.0 and

analysed. The hypotheses were tested using the linear regression analysis.

4 RESULTS AND DISCUSSION

4.1 Normality

Normality test was conducted and measured using skewness and kurtosis. Normality test was used to determine if a data significantly deviate from a normal distribution.

Table 1: Normality result.

	SMM Adoption	Interactivity Cost Effectiveness	Compatibility
Skewness	-0.885	-0.763	-0.576
Kurtosis	0.422	0.977	0.019

Based on the above table, the result of normality test range from -0.576 to 0.977, considered that all value is acceptable. According to George and Mallery (2016) the value between - 2 and +2 are acceptable and consider as a normal. It means that all variables that were used in this study are normal. Hence, the researcher can proceed for further analysis.

4.2 Demographic Profiles

Table 2: Frequency and percentage distribution.

Demographic	N	%
Type of Industry		
Manufacturing	32	23.9
Service	82	61.2
Others	20	14.9
Total	134	100.0
Type of Company Internet Connection		
UniFi	26	19.4
Streamyx	54	40.3
TMNet	29	21.6
Jaring	24	17.9
Leased Line (ISDN)	1	0.7
Total	134	100.0
Years of Using Internet for Business Purposes		
Less than 5 years	96	71.6
6-10 years	3	2.2
11-15 years	34	25.4
16-20 years	0	0.0
Above 20 years	1	0.7
Total	134	100.0

Source: Survey

A total of 134 respondents completed the questionnaire and summarized in Table 2 as above. For the type of industry category, 61.2 percent of the total numbers of respondents were in service, 23.9 percent were in manufacturing and 14.9 percent were others. In terms of type of company ownership category, majority of the respondents were sole proprietors which indicated the percentage of 68.7 percent, 24.6 percent were partnership business and 6.7 percent were limited company. When respondents were asked about their age of business, 41.0 percent reported to be operating for 4-8 years, followed by 39.6 percent were less than three years of operation, while 14.2 percent were 9 to 15 years in business. Only 4.5 percent were above 20 years while 0.7 percent are above 16 to 20 years. In terms of type of company internet connection, 40.3 percent of the total number of respondents used Streamyx, TMNet (21.6 percent), UniFi (19.4 percent), Jaring (17.9 percent) and Leased Line (0.7 percent). Finally, when the respondents were asked about how many years they has been using Internet for business purposes, 71.6 percent reported they had used less than 5 years. The respondents had used 6 to 10 years of Internet has 25.4 percent, followed by 11 to 15 years (2.2 percent) and lastly, only 0.7 percent of the total number of respondents reported that they have been using internet for more than 20 years for business purposes.

4.3 Reliability Analysis

Generally, Cronbach's alpha was used to measure the reliability and value of less than 0.60 are considered to be poor, whereas those close to 0.70 are considered good and those over 0.80 are considered to be high (Amiri et al., 2010). The average alpha values for variables for every section are shown in Table 3 below.

For social media marketing adoption, the overall Cronbach's Alpha is 0.930 or 93.0 percent, with the highest value of was 0.923 while the lowest was 0.906. For interactivity, the Cronbach's Alpha value was 0.835 or 83.5 percent, and the Cronbach's Alpha for every item ranged between 0.758 to 0.811. For cost effectiveness, the overall Cronbach's Alpha is 0.819 or 81.9 percent, with the highest value of was 0.791 while the lowest was 0.710. For compatibility, the Cronbach's Alpha value was 0.834 or 83.4 percent, and the Cronbach's Alpha for every item ranged between 0.760 to 0.819. As a conclusion, in general, the Cronbach's Alpha values were higher for all sections with the Cronbach's Alpha value 0.899 or 89.9 percent.

Table 3: Reliability test.

Variable	Cronbach's Alpha
Social Media Marketing Adoption	0.930
Interactivity	0.835
Cost Effectiveness	0.819
Compatibility	0.834

Source: Survey

4.4 Pearson Correlation Analysis

Pearson Correlation analysis is a statistical analysis that summarizing the strength of association between two metric variables (Malhotra, 2011). The correlation is a technique on how strongly pairs of variables are correlated.

Table 4: Correlation coefficient.

	SMM Adoption	Interactivity	Cost Effectiveness	Compatibility
SMM Adoption	1			
Interactivity	0.563**	1		
Cost Effectiveness	0.630**	0.805**	1	
Compatibility	0.663**	0.713**	0.821**	1

** Correlation is significant at the level 0.01 level (2 tailed)

The relationship between interactivity, cost effectiveness and compatibility with social media marketing adoption by SME has been tested. Interactivity (r value = 0.563, p-value < 0.01) indicated that positive relationship between interactivity with social media marketing adoption and have a moderate strength of association with social media marketing adoption. In addition, cost effectiveness (r value = 0.630, p-value < 0.01) showed that there is a positive relationship and have a moderate strength of association between cost effectiveness with social media marketing adoption. Lastly, compatibility (r value = 0.663, p-value < 0.01) indicated that positive relationship between compatibility with social media marketing adoption and have a moderate strength of association with social media marketing adoption.

4.5 Hypotheses Testing

The study hypothesized that interactivity have a significant relationship with social media marketing adoption (t-value = 7.817, p-value = 0.000). Thus, the result H1 is supported. Besides that, the study revealed cost effectiveness have a significant relationship with social media marketing adoption (t-

value= 9.327, p-value = 0.000) hence, the result H2 is supported. And finally, compatibility have a significant relationship with social media marketing adoption (t-value = 10.179, p-value = 0.000). Thus, the result H3 is supported. As for conclusion, all the variables has a significant relationship with social media marketing adoption by SME.

Table 5: Hypotheses testing.

Hypotheses	t-value	Sig	Result
H1: The greater the interactivity of social media, the more likely social media marketing will be adopted by SMEs	7.817	0.000	Supported
H2: The greater the cost effectiveness of social media, the more likely social media marketing will be adopted by SMEs.	9.327	0.000	Supported
H3: The greater the compatibility of social media, the more likely social media marketing will be adopted by SMEs.	10.179	0.000	Supported

5 CONCLUSIONS

The study was to identify the relationship between technological factors and social media marketing adoption among SME in Kelantan. For hypothesis testing, linear regression was used as statistical tools. Technological factors that hold three dimensions which are interactivity, cost effectiveness and compatibility, is found and concluded to be significantly linked to social media marketing adoption by SME in this study. The impact of these factors is high as these factors employed high R squared value, thus, it can be concluded that in order for firm to adopt social media marketing, they need to look into these three indicators which are interactivity, cost effectiveness and compatibility.

As a conclusion, it is recommended that businesses especially small medium enterprises to consider the technological factors that has been determined in this study such as interactivity, cost effectiveness and compatibility in order for them to adopt social media marketing in their firm.

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