

Applying Technology Organization and Environment (TOE) Model in Social Media Marketing Adoption: The Case of Small and Medium Enterprises in Kelantan, Malaysia

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Abstract: In this study, Technology Organization and Environment (TOE) Model by Tornatzky and Fleischer is used as part of the theoretical framework. The aim of this study is to identify the factors that influence social media marketing adoption by the Small and Medium Enterprises (SMEs) in Kelantan, Malaysia. Data are collected through in-depth interviews with the SMEs in Kelantan, Malaysia. The findings indicate that technology organization and environment factors significantly influence on social media marketing adoption by the SMEs in Kelantan, Malaysia. Most participants highlighted that the ICT infrastructure requires improvements particularly in terms of Internet speed and coverage areas. The sample size only represents the views of the SMEs in Kelantan and does not cover the overall views of the SMEs in Malaysia. The study could be strengthened by increasing the sample size and including participants from other geographical areas. This study contributes to and extends our understanding of the factors of social media marketing adoption by the SMEs in Kelantan, Malaysia. A new trend of marketing through social media creates opportunities for the SMEs to expand their businesses and the government agencies could take the initiative to encourage more people to become online entrepreneurs in Malaysia.

Key words: Social media marketing, TOE Model, SME, Malaysia, size

INTRODUCTION

Of late, the social media has become a promising platform, particularly for the Small and Medium Enterprises (SMEs), to market their products and services. Due to the popularity of social media, more firms are found to actively participate in social media marketing which resulted in the social media to become a new platform for marketing and promotion (Pradiptarini, 2011). According to the Internet Live Stats, the number of Internet users in Malaysia are approximately 21 million with 18 million of the users are Facebook subscribers. The social media act as a gateway of communication in connecting people around the globe (Baird and Parasnis, 2011).

Apart from that, Facebook has become a popular choice of social media network in promoting business as it allows communication to go beyond a private one-to-one conversation to a many-to-many conversation (Hawn, 2009; Alam and Noor, 2009;

Richard *et al.*, 2011). In fact, these business owners have also realized that the social media represents a new way of interacting and communicating with the customers while providing opportunities for businesses to extend their communication, develop a reputation and promote the business's image (Becker *et al.*, 2013). Drury (2008) acknowledged that the SME sector 'must' utilize the social media or they will lose the opportunities that such media may offer.

Due to the rapid speed of Internet development, technology adoption has outpaced the development of current academic research (Kietzmann *et al.*, 2012). Nevertheless, there is a limited number of research that focuses on social media marketing adoption, particularly for the Small and Medium-sized Enterprises (SMEs). This study highlights the technological organizational and environmental factors that influence the adoption of social media marketing as part of the marketing strategies for the SMEs.

Problem statement and objectives: Despite the popularity of social media, their importance in shaping commercial online interaction (Stephen *et al.*, 2013; Mislove *et al.*, 2007) and their potential to support brands (Laroche *et al.*, 2013; Louis and Fleischer, 1990) research into social media marketing is still limited and focuses largely on the consumers rather than a business organization domain. Besides, most of the emerging literature and statistics on social media marketing have demonstrated adoption only in developed countries.

Currently, there is still limited number of studies that explore the adoption of social media marketing which particularly focus on the SMEs in developing countries such as Malaysia. Thus, this study will be able to fill up the research gap and contribute to the new body of knowledge as well as literature in the related area. The purpose of this study is to identify the factors that influence social media marketing adoption by the SMEs in Kelantan, Malaysia. The internal factors consist of the technological context (ICT infrastructure, ICT expertise and e-Business) and the organizational context (firm scope, firm size and organization readiness), while the external factors are made up of the environmental context (consumer readiness, competitive pressure and government policies).

Proposed model: This study adopted the Technology Organization and Environment (TOE) model by Tornatzky *et al.* (1990) as part of the theoretical framework. The main antecedents of social media marketing adoption by the SMEs are affected by several factors such as technology (ICT infrastructure, ICT expertise and e-Business know-how) organization (firm scope, firm size and organization readiness) and environment (consumer readiness, competitive pressure and government policies). Appropriate marketing strategies also essential for the SMEs in strategizing their business particularly in social media networks. Finally, the performance evaluation will be considered after the adoption of social media marketing in the business practices. The proposed model is presented in Fig. 1.

Literature review: Basically, there are several different theories of new technology adoption that affect the decision of the implementation of social media marketing such as the Technology Acceptance

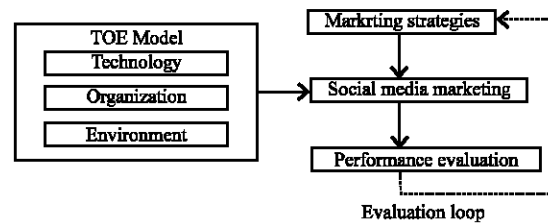


Fig. 1: Social media marketing adoption model

Model (TAM), the Diffusion of Innovation Model (DOI) as well as the Unified Theory of Acceptance and Use of Technology Model (UTAUT). Each of the theories indicate their potential influence in marketing analysis, each with a different perspective of new technology (Iqbal and ElGohary, 2014). This study adopted the TOE Model as part of the theoretical framework.

The TOE Model consists of three aspects of a business firm's context that influence the adoption and implementation which include: the technological context includes the ICT infrastructure, ICT expertise and e-Business know-how; the organizational context firm scope, firm size and organization readiness and the environmental context consumer readiness, competitive pressure and government policies (Tornatzky *et al.*, 1990). A plethora of empirical studies on the acceptance of new technologies using the TOE Model has been conducted (Awa *et al.*, 2015; Palacios-Marques *et al.*, 2015; Zhu *et al.*, 2006; Zhu and Kraemer, 2005). The SMEs play an important role in economic development and their contribution to the economy as well as ability to create more employment opportunities is widely recognized. Nevertheless, these businesses often experience a variety of challenges in the business environment such as limited financial resources, shortage of skilled workers and inadequate infrastructure (Kodakanchi *et al.*, 2006). Besides, most marketing approaches of these businesses depend on how the owner operates and runs the businesses which are often mixed and informal. Bode (2004) claimed that many SMEs do not have a strategic planning for their businesses.

Due to the advent of technologies, the social media creates new opportunities and marketing strategies for the SMEs to expand their market. A study by Bhanot (2012) indicated that the SMEs used social media particularly Facebook for several business objectives such as marketing,

communication, sales, advertising, innovation, problem resolution, customer service, human resources, information technology as well as driving cultural change. The SMEs also use social media as an additional way to communicate with customers and enhance customer relationships (Meske and Stieglitz, 2013). This statement is supported by Michaelidou *et al.* (2011) by claiming that most of the SMEs that used social media as marketing tools were able to achieve their business objectives by attracting more new customers.

MATERIALS AND METHODS

Selection of participants: This paper concentrated solely on the SMEs in Kelantan, Malaysia and specifically discussed on social media marketing adoption in the businesses by applying the TOE Model. Eight participants consisting of SME owners and/or managers were selected to participate in this interview. The selection were made based on the SME directories and online search through the social media as well as business websites. The participants were selected in accordance with these three criteria in order to be eligible in this study:

- Number of employees between 5 and not <75
- independent management. Typically, the owner is also a manager of the business
- adopt social media networking such as Facebook, Instagram, Pinterest and others for marketing

The definition of the SME is based on the definition by the SME Corp. Malaysia.

The way the interviews were conducted: The interviews were conducted from 20 February 2016 until 24 February 2016. All the participants were invited to join the interview session through the Whatsapp application and phone calls. Introductory message were sent to all the selected SMEs entrepreneurs to invite for the interview session, describe the duration of the interview session and explain the aims of the interview.

A total of 20 invitation messages were sent (Whatsapp application) and phone calls were made to potential participants. Out of the 20 invitations, 8 invitees responded positively to participate in the interview session. However, one participant have

Table 1: Summary of the response rate in Kelantan

Kelantan SMEs	
Items	Quantity
Number of invitation email sent	20
Positive responses received	8
No response	4
Refused to participate	8
Actual interview performed	7

Table 2: Profile of Kelantan SMEs

Services	ID
Beauty product	P1_Kel_Beauty
Toys supplier	P2_Kel_Toys
Restaurant	P3_Kel_Restaurant
Spa treatment	P4_Kel_Spa
Craft supplier	P5_Kel_Craft
Photography studio	P6_Kel_Photo
Apparel	P7_Kel_Apparel

withdrawn to due to some urgent matters. Some of the invitees avoided to be interviewed giving reasons such as renovation of store, working outstation during the proposed time for the interview session and some other reasons. The findings of this study was analyzed using the Atlas.ti Software. Table 1 shows the summary of the responses rate in Kelantan prior to the interview session being conducted.

The selected small business enterprises were from both the rural and urban areas in Kelantan. Four SMEs were from the rural areas and the other 4 were from the urban areas. All the SMEs can be accessed by land. Table 2 displays of the as well as their types of services and their ID.

RESULTS AND DISCUSSION

Based on the proposed model, the listed antecedents are technological context organizational context, environment context, marketing strategies, social media marketing and performance evaluation. All the listed antecedents were derived from literature and findings from previous data collection on the initial proposed model.

Technological context: The antecedents that will be discussed under the technological context are ICT infrastructure, ICT expertise and e-Business know-how. The findings indicated that most of the participants preferred to use their smartphones rather than laptops or tablets to update their business activities. They claimed that smartphones provide convenience for them to access the Internet easily

rather than using personal computers. In terms of Internet connection, five participants mentioned that they were having difficulties with the Internet speed and coverage which have inconsistent signals at certain locations:

“When I use other ISP from Company X through mobile Internet, I can receive better Internet coverage compare to Wifi offered by Company A”- P7_Kel_Apparel

“I had worst experienced with ISP from Company XX where almost a month I cannot use the Internet service” P4_Kel_Spa

In terms of IT expertise, most participants did not focus much on employee skills in IT. They claimed that it was not too difficult to look for employees who have IT skill particularly those experienced in handling and communicating through social media networks. Perhaps, all participants were aware of the importance of IT and being an e-Business know-how especially in this thriving business using the social media networks. Six of the participants highlighted that they frequently updated their businesses in social media:

“If I do not update my social media frequently, I might lose my customers”
P1_Kel_Beauty

Organizational context: Three antecedents that will be discussed in the organizational context are the firm scope, firm size and organization readiness. Five participants mentioned that they got involved in the business because of their interest. Some of them claimed that they enjoyed adopting social media marketing for the businesses. Nevertheless two participants indicated that the social media marketing slightly increase their marketing cost as they had to pay for social media advertising in order to engage with customers:

“I don’t mind to pay a certain amount of money for advertising in social media as in return more new customers will know about my products” P4_Kel_Spa

As for the firm size, most participants agreed that they often face problems marketing their products and/services through the social media especially when

it comes to the numbers of stocks. They claimed that sometimes they received massive orders from the customers but were not able to meet the demand due to stock limitation. This will affect the business as this might result in the customers to switch to other retailers.

In terms of the organization readiness, overall all the participants were ready to adopt social media marketing for their businesses. They also claimed that social media marketing have made it easier for them to reach a wider market. For example, participant P7_Kel_Apparel who sell traditional batik fabric said that some of the customers know about his batik products through Facebook and were willing to travel along the coast to purchase the products.

Environmental context: Three antecedents highlighted in the environmental context are consumer readiness, competitive pressure and government policies. Overall, most participants agreed that their customers were ready with social media marketing adopted by them. According to participant P6_Kel_Photo who runs his own photography studio, his clients most likely to communicate about the service offered by his company through Facebook rather than other social media networks:

“Most of my customers know about my services through Facebook. Some of their friends shared or tagged about my services to others and this is how my business spreads” P6_Kel_Photo

All the participants agreed that they adopted social media marketing due to competitive pressures. They claimed that they have to compete in the market in order to sustain in the business. Besides, social media creates a massive of choices for customers to purchase products or select services therefore this requires the retailers to keep pace with the current technologies. Participants were also aware of the government policies particularly the registration of business which can be conducted online.

Marketing strategies: Marketing strategies are crucial parts for SMEs. Due to the thriving market in the social media networks, it requires the SMEs develop a strategic marketing approach.

According to participant P1_Kel_Beauty, she used Facebook and Instagram to market her products.

However, she faced difficulties to maintain both social media networks due to time constraints. It was found that most of her customers preferred to purchase her products via Instagram rather than Facebook. Nevertheless, the other five participants claimed that they rely more on Facebook rather than Instagram to market their products or services online:

“When I use Facebook to market my product, I can provide more details of products to my customers. I am willing to pay a monthly subscription to Facebook advertising to market my products”
P6_Kel_Photo

All participants mentioned that most of their customers preferred to purchase online rather than visit the physical stores especially the career women and students. Most participants agreed that social media leads to positive impact on their businesses especially in reducing their marketing costs and maintaining good customer relationships.

CONCLUSION

Overall, the technological organizational and environment contexts are significant to social media marketing adoption by the SMEs. There is still a need for the improvement of the ICT infrastructure particularly in Kelantan to support the growth of participation by the SMEs in social media marketing. In terms of marketing strategies, most of the SMEs have an imbalanced usage distribution of the social media. For instance, an SME owner may have both a Facebook and an Instagram account but only uses the Facebook account regularly as their means of communication.

This study contributes to the body of knowledge with respect to social media marketing by the SMEs. For the future, this study could be extended by focusing the research areas in specific sectors of the SMEs such as tourism and hospitality, retails or others instead of generalising the study as a whole.

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