

ROLE OF SOCIAL MEDIA ON INFORMATION ACCESSIBILITY

Farzana Parveen, Department of Operations and Management Information Systems, Faculty of Business & Accountancy, University of Malaya, Malaysia, farzanared@gmail.com

Noor Ismawati Jaafar, Department of Operations and Management Information Systems, Faculty of Business & Accountancy, University of Malaya, Malaysia, isma_jaafar@um.edu.my

Ainin Sulaiman, Department of Operations and Management Information Systems, Faculty of Business & Accountancy, University of Malaya, Malaysia, ainins@um.edu.my

Abstract

Social media is the gathering place of a large pool of consumers. It is the repository of consumer information and acts as a means of spreading information to build market presence. Most literature states that organizational usage of social media enhances customer relations, but social media also acts as a medium for information acquisition. Not many previous studies have investigated the role of social media on information accessibility. Therefore this study examined the impact of social media on information accessibility. A total of 171 organization responded to the survey and the result of the survey showed that social media usage has a positive impact on information accessibility. Also it was found that factors such as interactivity, trust and institutional pressure positively influence social media usage in organizations. This study provided a clearer understanding on the real importance of social media and its benefits towards information acquisition. The results would motivate and guide organizations in the adoption of social media for information acquisition which is important for understanding the customers, competitors and the industry and to develop strategies for enhancing business performance.

Keywords: Social media, Information accessibility, Organizational impact, Customer relations

1. INTRODUCTION

Organizations are using social media to improve their social network salience, enhance interest in their organizations, and build relationships with the online public. The relationship developed through social media not only brings customers closer to the organization but also helps organizations to get more information about the market trends, customer's needs and wants (Parveen et al. 2015). These benefits associated with social media makes it grow as an important strategic tool among organizations (Gomez Vasquez & Soto Velez 2011). Regardless of the existing debate on advantages and disadvantages of social media, investments in these technologies are growing high (Leader-Chivée & Cowan 2008). A survey by the McKinsey Quarterly on the implementation of Web 2.0 in the business sector showed that more than 75% of organizations planned to maintain or increase their investments in Web 2.0 (Chu et al. 2011). So in this case, it is important to know the benefits associated with social media usage in organizations.

Even though investments in these technologies are growing high, the most important thing is that organizations must use social media effectively and strategically to gain its full potential. For the organizations to use social media effectively there should be certain factors that influences and supports the usage in organizations. Therefore this study identifies the factors that influence social media usage among organizations. Furthermore, academic research that investigates the impact of social media on organizations is quite limited (Schultz et al. 2012). Generally the social media usage in organizations are related to the enhancement of relationship with customers but one of the most important impacts of social media usage is the improvement in information accessibility; the organizations can easily obtain the information about their potential customers, their tastes, their wants from the conversations on social media sites. Organizations can also obtain information about the activities, brand sentiments and tactics of their competitors by becoming fan of the Facebook pages of their competitors. Organizations can also gather general information about the market, new trends and industry information through social media. Moreover, organizations can also easily deliver the organizational information to the public in a timely manner (Parveen et al. 2015). However, not many previous studies have investigated the impact of social media on information accessibility. Therefore this study attempts to fill up this gap. The following section presents the literature review and the theoretical underpinnings of the study. Subsequently, the methods used to conduct the study are explained which is then followed by the description of the data analysis, findings and discussion.

2. LITERATURE REVIEW

Social media covers a wide variety of web-based technologies that enable users to contribute to, as well as consume information. These social media tools can be established anywhere with an Internet connection, and it should be considered by marketers, advertisers, and content creators as a basic part of their communications because social media affects all aspects of the Internet and transforms the role of the Internet in people's lives (Akar & Topcu 2011; UnicursalMcCann 2008). Organizations should consider using social media mainly because of the changing trends among consumers. According to Mangold and Faulds (2009), marketing managers should recognize the power and critical nature of the discussions that is being carried on by consumers via social media. They illustrated the nature of the current trend as that the Internet has become a mass media vehicle for consumer-sponsored communications. It now represents the number one source of media for consumers at work and the number two source of media at home (Rashtey et al. 2007). As the trend is changing more favorably towards social media among consumers, social media also provides various advantages to organizations.

Social media can assist organizations to create an online resource containing the accumulated wisdom of the organization, by allowing knowledge to be codified, searched, and shared (Cairncross 2001; IBM 2007). Organizations can gain information about their consumers and their target markets which enable them to produce and tailor the goods and services according to the customer needs. More and more often, businesses are investing in resources that integrate social data into their existing customer database information as part of customer relationship management (CRM) upgrades (Trainor 2012; VanBoskirk et al. 2011). As it can be seen social media is a growing phenomenon and perhaps the latest user-led innovation to emerge from the World Wide Web and Web 2.0 technologies. However, research on the organizational use of social media is new and few (Akar & Topcu 2011). Therefore this study aims to identify the factors influencing social media usage and its subsequent impact on informational accessibility of the organizations.

Figure 1 outlines the theoretical model that guides this research. The research model for this study is based on the technology, organization, and environment (TOE) framework. The model also combines the aspect of resource based view theory, institutional theory, and the DeLone and McLean IS success model. Tornatzky and Fleischer (1990) developed the TOE framework to evaluate technology adoption. The framework identifies three aspects of a firm’s characteristics namely technological, organizational and environmental. These characteristics influence the process of adopting, implementing and using technological innovations (DePietro et al. 1990; Robertson 2005; Tornatzky & Fleischer 1990). Factors relating to technological, organizational, and environmental context were examined to identify its influence on social media usage in organizations. Moreover, based on the DeLone and McLean IS success model, the relationship between social media usage and organizational impact are examined.

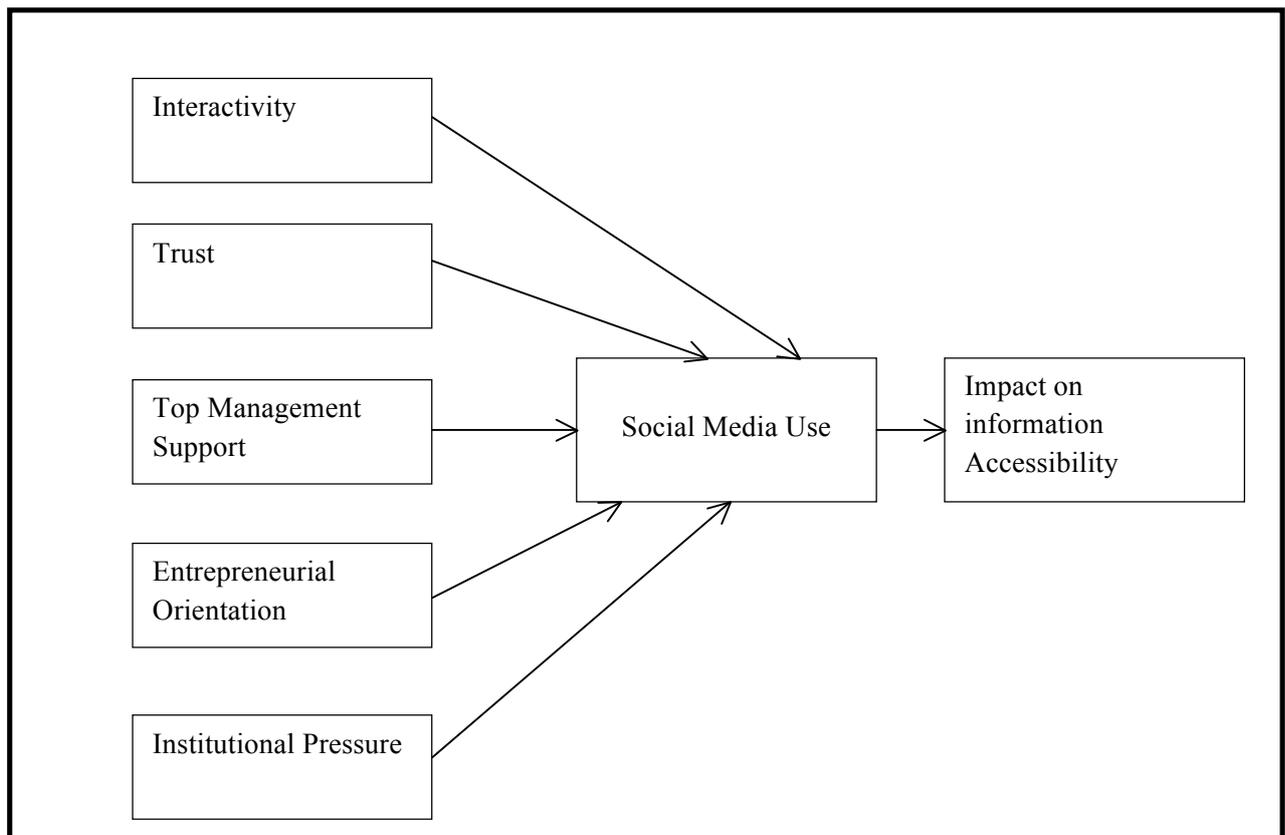


Figure 1. The Research Model

2.1 Interactivity and Social media usage

For the technological factors, the interactivity of the technology and trust on technology were examined. Technologies are perceived to possess attributes that have effect on the decision to adopt and how they will be implemented. Previous studies have found that the design and implementation of the computing systems considers the successful interaction between a human and a computer as a key factor (Lee & Kozar 2012). Among the various design characteristics, interactivity stands out as a key and distinguished factor that impacts users' response to new technologies including websites (Agarwal & Venkatesh 2002; Jiang & Benbasat 2007). Social media is considered as an interactive media. It enables two-way communication rather than one-directional transmissions or distributions of information to an audience (Mayfield 2008). E-business sites have rushed to integrate these social networking features into their websites, enabling enhanced interactive communications between consumers or between consumers and organizations (Lee & Kozar 2012). Adding social networking features also augments site credibility. Therefore, considering the interactive nature of social media, this study investigates the influence of interactivity on the usage of social media in organizations

H1: Interactivity of social media positively influences social media usage

2.2 Trust and Social media usage

Trust is one of the important factors that were investigated by previous researchers. According to McKnight and Chervany (2002), institutional trust is the subjective belief with which organizational members collectively assess that favorable conditions are in place, and that are conducive to the transaction success. McKnight et al. (1998) described two types of institution based trust – situational normality and structural assurance. Situational normality refers to the belief that success is anticipated because the situation is normal. Whereas the Structural assurances refer to belief that favorable outcomes are likely because of contextual structures, such as contracts, regulations and guarantees. In the social media context, the organizations post lot of information about their organization, products, services and other promotional activities. So there might be a need for structural assurance in social media to use it and reach large number of audience. Therefore the impact of trust (structural assurance) on social media usage is examined in this study.

H2. Trust on social media positively influences social media usage.

2.3 Top management support and Social media usage

For the organizational factors, factors such as top management support and entrepreneurial orientation of the organization were used. Numerous studies have shown the relationship between top management support and technology adoption (Chong & Chan 2012; Ramdani et al. 2009; Low et al. 2011). Social media is like a 'double-edged sword', as it provides many advantages; there are also some disadvantages due to which the top management might hesitate to use social media. Some of the issues related to social media are that social media usage by employees might affect the productivity, as employees spend more time wasting in social media sites. Reputation management is critical when using social media, dissatisfied customers or employees can post information about organization that might affect the reputation of the organization (Shirky 2008; Zyl 2009). Moreover, social media usage in an organization also requires continuous monitoring and proper staff to update the information on the site, so proper resources should be provided for the successful usage of social media. Considering all these issues, top management support can be an important factor for the use of social media.

H3: Top management support positively influences social media usage.

2.4 Entrepreneurial orientation and social media usage

Based on resource-based view theory, entrepreneurial orientation is considered as an important asset for firms competing in electronic environment (Colton et al. 2010). Entrepreneurial orientation is defined as the methods, practices, and decision-making styles managers use to act entrepreneurially. These include processes such as experimenting with promising new technologies, being willing to seize new product-market opportunities, and having a predisposition to undertake risky ventures (Lumpkin & Dess 1996). Thus, the established three key elements of this construct are innovativeness, proactiveness, and risk-taking (Covin & Slevin 1991; Wiklund 1999). For this study the innovativeness and risk taking propensity of the firm are investigated to determine the influence of entrepreneurial orientation of the firm towards social media usage.

In terms of innovativeness, it is proposed that firms with a high entrepreneurial orientation eagerly embark upon experimentation, support new ideas, and depart from existing practices (Lumpkin & Dess 1996). Risk-taking element is linked to the company's propensity to engage in projects that have uncertain outcomes or high profits and losses (Lumpkin & Dess 1996). Not many researchers have studied the direct impact of entrepreneurial orientation on technology adoption; however, some studies have examined the role of entrepreneurial orientation on various aspects of the technology and organizational performances (Elliot & Boshoff 2005; Mostafa et al. 2006). For technologies like social media which demands open and two-way communications, organizations must be ready to face both positive and negative consequences from the audience. Therefore, entrepreneurial orientation of an organization is an important factor for social media usage.

H4: Entrepreneurial Orientation of the organization positively influences social media usage.

2.5 Institutional pressure and social media usage

Institutional theory proposes that the institutional environment provides rule-like social expectations and norms for appropriate organizational structures, operations, behaviors, and practices (DiMaggio & Powell 1983; Meyer & Rowan 1977; Scott 1995; Zucker 1987). Institutional pressure refers to the pressure that emanate from institutional environments that can induce firms to adopt shared norms and routines (DiMaggio & Powell 1983). They categorized institutional pressures into normative, mimetic, and coercive pressures. The agents that may exert pressures include a firm's key customers, suppliers, competitors, and the government (Ke et al. 2009). Based on the interviews that was conducted prior to the survey to identify the key influential and impact factor of social media , the two constructs of institutional pressure are considered for further investigation in this study. Mimetic forces are pressures to copy or emulate other organizations' activities, systems, or structures. Coercive forces are the external pressures exerted by government, regulatory, or other agencies to adopt the structures or systems that they favor. Several studies have taken an institutional approach to study internet technologies' adoption and usage (Purvis et al. 2001; Chatterjee et al. 2002; Teo et al. 2003; Ke et al. 2009, Liu et al. 2010). Even for social media, it is possible to state that firms are likely to be induced to use social media due to the external pressures.

H5: Institutional pressure positively influences social media usage.

2.6 Social media usage and information accessibility

The construct system usage continues to be developed and tested by IS researchers (Gelderman 1998; Goodhue & Thompson 1995; Guimaraes & Igbaria 1997). Based on DeLone and McLean IS success model, in order to investigate the usage of social media in organizations, the informed effective use of social media was considered, as this was an important indication of technology success, which in turn

has an impact on organizations (DeLone & McLean 2003). The growth of various information technologies is providing various informational benefits to organizations. Mirani and Lederer (1998), in their study divided the Informational benefits into information access, information quality, and information flexibility. One of the most important impacts of social media usage is the improvement in information accessibility; the organizations can get the information about their potential customers from the conversations in the social media sites. Similarly they can also obtain information about their competitors and the industry directly and easily via social media (Parveen, et al. 2015). Even though social media provides improvement in informational accessibility, studies investigating this relationship are very limited. Therefore this study attempts to examine the relationship between social media usage and its impact on information accessibility.

H6: Social media usage positively influences the information accessibility of the organizations.

3. RESEARCH METHODOLOGY

For the present study, organizations that are using social media in Malaysia are the target population. The organizations that are using social media were identified by browsing through various organizations' website. The data for this study are gathered over a three-month period from March to May 2014 using the survey method. The unit of analysis for this study is the organization. Additionally, it is also important to determine the respondents representing the unit of analysis (Hair, Bush, & Ortinau, 2006). For this study, key organizational informants such as Senior Managers from the corporate communication or marketing department or the Head of social media team are the respondents following the single key-informant approach, the most commonly used method in organizational research (Kumar, Stern, & Anderson, 1993).

Before conducting the survey, interviews were conducted among the senior managers of six organizations that are using social media. Interviews were conducted to identify the purpose of social media usage for information search and the benefits associated with the usage. Factors that influenced social media usage among organizations were also identified. Based on the interview findings and after referring the literature, the identified constructs were included in the study for further investigation. In the survey questionnaire the statements were measured using multiple items, on five-point Likert scale items anchored with, "1=Strongly Disagree" and "5 = Strongly Agree". The conceptualization of trust was measured using items adapted from Chai et al. (2011), interactivity from Lee and Kozar (2012), top management support adapted from Liang et al. (2007), Chong and Chan (2012), Wang et al. (2010) and Teo and Pian (2003), entrepreneurial orientation of organizations from Covin and Slevin (1989), Naman and Slevin (1993) and Hult et al. (2004). The scales for institutional pressure were adapted from Liu et al. (2010), Teo et al. (2003) and Khalifa and Davison (2006), social media usage from Papastathopoulou and Avlonitis (2009), Elliot and Boshoff (2005) and Moen et al. (2008). Finally the measures for informational accessibility were adapted from Mirani and Lederer (1998) and Elliot and Boshoff (2005). The second part of the questionnaire focused on respondents' demographics information. Prior to the main survey, pilot test was conducted with 33 responses in order to ensure the validity of the questions and structures. Some minor revision were made and subsequently, the survey was conducted online using Survey Monkey. For data analysis, PLS technique was used to test the hypotheses of the study.

4. RESULTS

Among the 664 questionnaire distributed, 171 usable responses were received showing a response rate of 26%. More than half (53%) of the organization replied that they have been using social media in

their organization for more than 2 years, and about 32% of the organization have been using it for 1 to 2 years. This showed that most of the organizations in Malaysia have been using social media for a reasonable period of time. Therefore it is possible to study the impact of social media usage on organization.

4.1 Assessment of Measurement model

This study uses the PLS (Partial Least Square) technique to analyse data by using SmartPLS 2.0 software. Figure 2 illustrates the measurement models of the study and the factor loadings (outer loadings) of the constructs. The study uses the two-stage approach. In the first stage, the figure 2 shows that all the first order constructs for instance, coercive pressure (CP), mimetic pressure (MP) of Institutional Pressure construct and Risk taking propensity (RT), Innovativeness (Inno) from Entrepreneurial orientation constructs are directly connected with other constructs of the study.

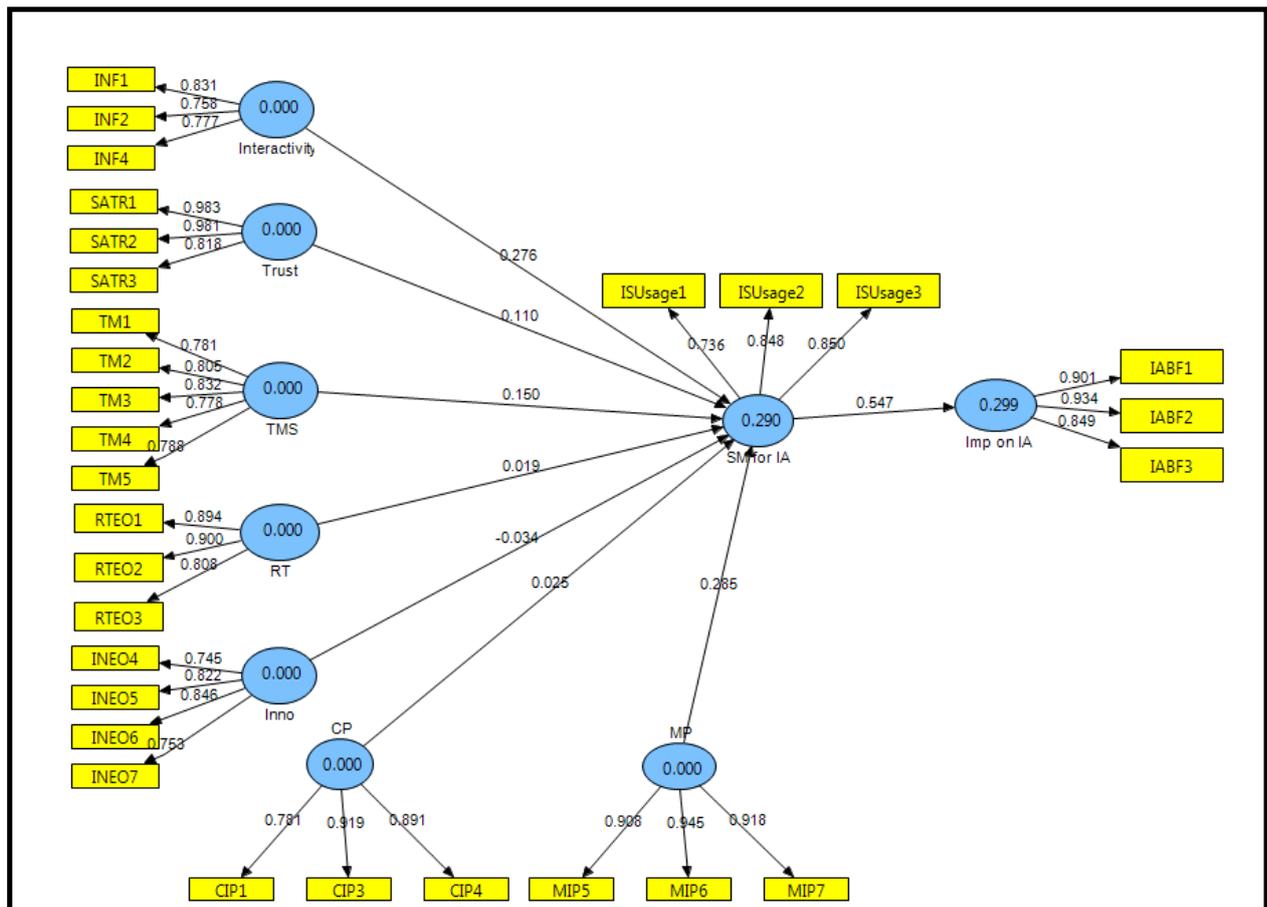


Figure 2. Measurement model with Factor Loadings

As illustrated on Figure 2, all of the indicators' outer loadings are above the threshold value of 0.708. Next in order to test the reliability and validity of the constructs, values of composite reliability and average variance extracted (AVE) are reported in Table 1. Therefore, results of the study revealed that the values of the composite reliability are greater than 0.6 and AVE is greater than 0.5 for all the constructs, thus construct reliability and convergent validity is achieved. The next evaluation criterion for reflective models is to check for discriminant validity. The results of Fornell-Larcker criterion (Refer Appendix 1) showed that that the square root of AVE for the constructs is greater than other inter-constructs' correlation value. Therefore this confirms the achievement of discriminant validity.

Constructs	AVE	Composite Reliability	Cronbachs Alpha
Interactivity	0.623	0.832	0.705
Trust	0.866	0.950	0.921
Top Management Support(TMS)	0.635	0.897	0.856
Risk Taking(RT)	0.754	0.901	0.837
Innovativeness(Inno)	0.628	0.871	0.806
Coercive Pressure(CP)	0.749	0.899	0.832
Mimetic Pressure(MP)	0.853	0.945	0.914
SM for IA	0.544	0.769	0.659
Imp on IA	0.801	0.923	0.878

Table 1. Construct Reliability and Convergent Validity

4.2 Evaluation of Second Order Constructs

The evaluation of second order constructs is similar to the assessment of first order constructs. This study modeled two second order constructs namely institutional pressure which has two first order constructs; coercive and mimetic pressures; entrepreneurial orientation with risk taking propensity and innovativeness as first order constructs. During the 2nd stage of analysis, the Latent Variable Scores (LVS) of first order constructs were used as indicators for second order constructs. The composite reliability, AVE, and outer loadings were evaluated for the second order constructs during 2nd stage of analysis. The Table 2 summarizes the evaluation results of the second order constructs.

Constructs/Indicators	AVE	Composite Reliability	Outer Loadings
Institutional Pressure	0.825	0.904	-
Coercive Pressure(CP)	-	-	0.890
Mimetic Pressure(MP)	-	-	0.926
Entrepreneurial Orientation	0.726	0.841	-
Risk taking(RT)	-	-	0.865
Innovativeness(Inno)	-	-	0.839

Table 2. Evaluation of Second Order Constructs

The results report the composite reliability and AVE of only the second order constructs, as the first order constructs have been evaluated previously. The AVE of institutional pressure was 0.8257 and entrepreneurial orientation was 0.7268. The AVE values of the second order constructs were well above the cut-off value 0.5. The composite reliability of institutional pressure was 0.9045 and entrepreneurial orientation was 0.8418. The reliability values are above the threshold of 0.70 thus supporting internal consistency reliability. The outer loadings of the indicators of second order constructs were well above the critical value of 0.70.

4.3 Assessment of Structural Model

The important criterion to assess the structural model was the estimates of path coefficients and R^2 . The estimated values for path relationships in the structural model should be evaluated in terms of sign and magnitude. The significance of the hypothesized relationship was estimated through bootstrapping. Figure 3 shows the structural model with path coefficients, t-values and R^2 value.

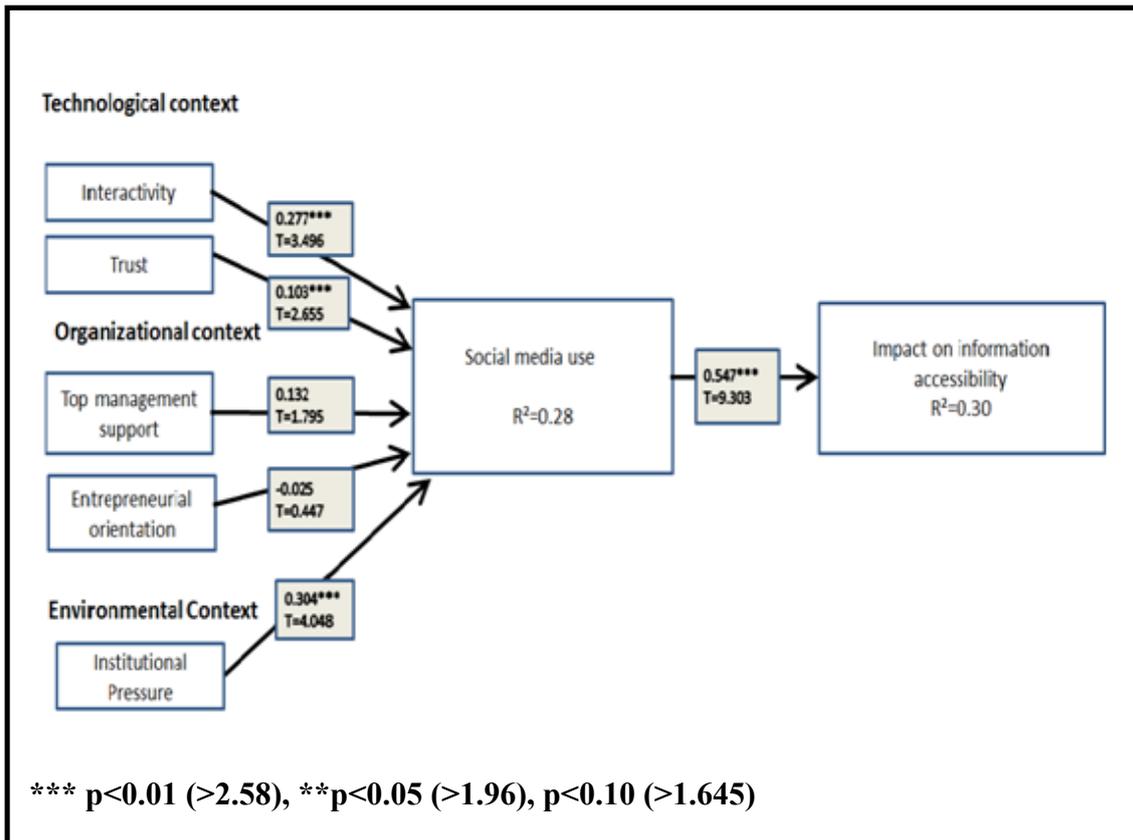


Figure 3. Assessment of Structural Model

The main criteria to assess the structural models are the R^2 of endogenous latent values. This study shows the R^2 value for the endogenous latent variables social media usage was 0.28 and impact on information accessibility was 0.30, which are considered as slightly moderate. The result of the path coefficients and t-values (Table 3) showed that interactivity, trust and institutional pressure with t-value > 2.67 at 1% significance level significantly influence social media usage among organizations. Similarly, social media usage with t-value > 2.67 at 1% significance level have an impact on informational accessibility. Therefore H1, H2, H5 and H6 are supported in the study. Table 3. Summarizes the results of Hypotheses testing

Hypotheses	Beta	T-value	Result
H1: Interactivity of social media positively influences social media usage	0.277***	3.496	Supported
H2: Trust on social media positively influences social media usage	0.103***	2.655	Supported
H3: Top management support positively influences social media usage	0.132	1.795	Not Supported
H4: Entrepreneurial orientation positively influences social media usage	-0.025	0.447	Not Supported
H5: Institutional pressure positively influences social media usage	0.304***	4.080	Supported
H6: Social media usage will have a positive impact on information accessibility	0.547***	9.303	Supported
*** p<0.01 (>2.58), **p<0.05 (>1.96), p<0.10 (>1.645)			

Table 3. Summary of Hypotheses Testing

5. DISCUSSION AND CONCLUSION

Findings of the study suggested that interactivity, trust and institutional pressures are significantly related to social media usage. On the contrary, entrepreneurial orientation and top management support were not significantly related to social media usage. The results also showed that social media usage had a positive impact on information accessibility. The results revealed that interactivity of social media is an important factor that determined social media use in organizations ($P < 0.01$). Interaction between the public and the organizations can be improved tremendously by the interactive nature of social media which influences the organizations to adopt social media. After adoption, the interactivity aspect of the technology motivates them to use it more effectively as they can interact with customers and receives feedback in a timely manner which helps to improve their business. Previous studies also provided consistent results that interactivity of the technology has a strong effect on technology adoption (Lee & Kozar, 2012; Pituth & Lee, 2006). Similarly, trust was found to have significant relationship with social media usage. The organizations post lot of information about their products, services and other promotional activities on social media sites. So trust in terms of structural assurance on social media technologies is an influential factor for its adoption and effective usage in organizations. The result is consistent with Chai et al. (2011) who founded that trust is an important factor that influences the knowledge sharing behaviors in blogs. Therefore this study found that trust on social media influences the social media usage in organizations.

Another important determinant of social media usage is the institutional pressure that emanated from the external environment ($P < 0.01$). The explanation for the result could be that pressure from various external parties such as competitors and customers had a positive influence on the organizations' adoption of social media. Since the competitors and customers are also very active in social media, it pressures the organizations to use social media effectively to communicate with them and to keep up with the trend. The finding of this study is consistent with previous studies that argued that institutional pressure was an important determinant of technology adoption (Teo et al. 2003; Ke et al. 2009, Liang et al. 2007). However, top management support was not a significant factor that influences social media usage in organizations. This result contradicted with most of the previous studies' findings which stated that top management support is an important determinant of technology adoption (Chong & Chan 2012; Ramdani et al. 2009; Low et al. 2011; Ifinedo 2011; Scupola 2009). However, the result is consistent with Wang et al. (2010)'s study which found that top management support is not a significant factor for technology adoption. Due to the reputation issues associated with social media, the top management might be reluctant to adopt social media and does not provide complete support. For some organizations, considering the positives of social media the organizations do have social media presence but don't use it effectively due to the lack of funds segregated by top managements to monitor social media usage in organizations. The last insignificant factor was

the entrepreneurial orientation of the firm. Not many studies have investigated the direct relationship between entrepreneurial orientation and technology adoption. However, similar to the study findings, Urban (2010) in his study found that entrepreneurial orientation was not significantly associated with technology orientation of the organization. In addition, Colton et al. (2010) examined the role of entrepreneurial orientation in e-tailing context and found that entrepreneurial orientation does not have a positive impact on brand strength in e-tailing. The explanation for the insignificant result would be that social media is not a big investment which involves great risk. So the risk taking propensity might not be an important factor in the adoption of social media. Moreover the organizations need not have to be very innovative to use social media; even a sole proprietor who has a small business and sells basic goods may use social media to advertise his products and services. Therefore, entrepreneurial orientation of the firm does not play an important role in social media adoption. The results also revealed that social media usage has a positive influence on information accessibility. Organizations can get information about their potential customers, their tastes, their wants easily from the conversations in the social media sites such as Facebook pages, twitter sites etc., By becoming a fan of other organizations' Facebook pages, it enables them to retrieve more information about their competitors, their activities, their tactics, and their brand sentiments which helps them to enhance their products and services in order to achieve greater impact on organizations' performance.

5.1 Implications of the Study

Literature on Information Technology stated that studies examining the determinants of IT use, the extent of IT use and firm performance in an integrative model was sparse (Devaraj & Kohli 2003). However, during the past few years, studies have been conducted to investigate the antecedents and consequences of various IT systems (Lee et al. 2010; Salwani et al. 2009; Stone et al. 2007; Zhu & Kraemar 2005). But in the context of social media, there is a lack of studies that investigated the organizational usage of social media in an integrated model (Akar & Topcu 2011; Lovejoy & Saxton 2012). Therefore the current study using an integrative model examined the determinants of social media use, the purpose of social media use and its impact.

This study investigated various factors to study its influence on social media usage. Previous studies that used TOE framework have mostly used general technological factors to study the adoption of the technology. However considering the interactive nature of social media, this study used social media specific variable such as social media interactivity to study its influence on social media usage. Similarly for organizational context, previous studies used descriptive measures such as the firm's size and scope, centralization, formalization, and complexity of managerial structure, the quality of human resource, and the amount of internal slack resources. This study rather than considering the descriptive measures, investigated the influence of entrepreneurial orientations of the firm on technology usage. Therefore this study validates and provides more support to the TOE framework. Apart from the commonly used constructs, constructs such as interactivity and entrepreneurial orientation were added to the framework to enhance it and make it more appropriate to study the web 2.0 technologies and upcoming new technologies that are highly collaborative and interactive.

Moreover, this study illustrated the use of social media for information search and subsequently its impact on easier access to information from various sources. Thus the obtained information via social media would enable the organization to have better knowledge about the customers, competitors and the market in general which helps the organizations to enhance the existing services and also to develop new products and services that are up-to-date. At the same time, this study only investigated the impact of social media on information accessibility. There may be other benefits associated with the use of social media in the organizational context which were not examined in this study. This study investigated the usage of social media considering all the social media tools in general. Since each social media tool has unique features and provides different benefits; future studies should

concentrate on one social media tool in particular and investigate it in detail, which might provide a more complete understanding of the particular social media tools' impact on organizations.

Appendix 1

	CP	Imp on IA	Inno	Interactivity	MP	RT	SM for IA	TMS	Trust
CP	0.866								
Imp on IA	0.536	0.895							
Inno	0.313	0.375	0.793						
Interactivity	0.244	0.439	0.436	0.789					
MP	0.654	0.582	0.203	0.246	0.924				
RT	0.422	0.371	0.454	0.280	0.354	0.868			
SM for IA	0.348	0.547	0.226	0.386	0.423	0.245	0.738		
TMS	0.507	0.460	0.475	0.373	0.420	0.390	0.363	0.797	
Trust	-0.041	-0.131	-0.059	-0.122	-0.088	-0.050	0.031	-0.132	0.931

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