

INVESTIGATING THE FACTORS AFFECTING THE SME OWNERS' BEHAVIORAL INTENTION TO ADOPT SOCIAL MEDIA: AN EMPIRICAL STUDY

Gazi Md. Shakhawat Hossain

Masters of Business Administration (MBA), Management Science and Engineering (MSE), School of Management (SOM), Huazhong University of Science and Technology (HUST), Hubei, Wuhan, P.R. China.

Maruf Hasan

Masters of Public Administration (MPA), Administrative Management, College of Public Administration (CPA), Huazhong University of Science and Technology (HUST), Hubei, Wuhan, P.R. China. marufhasannasim@yahoo.com

Saira Fareen

Masters of Public Administration (MPA), Administrative Management, College of Public Administration (CPA), Huazhong University of Science and Technology (HUST), Hubei, Wuhan, P.R. China.

ABSTRACT

The aim of this study is to investigate the factors that influence the SME owners' behavioral intention to adopt social media in their current business operations. This study proposed a technology adoption and usage model with five core determinants of behavioral intention to adopt social media in SMEs. The data used to test the hypothesis were collected from 200 SME owners. Finally, the research model was analyzed using Structural Equation Modeling (SEM). The results indicated that performance expectancy, perceived feasibility, and technological competence (estimated p-value < 0.05) have significant effects on intention to adopt social media. However, perceived desirability, and propensity to act (estimated p-value > 0.05) does not affect behavioral intention. The decision-makers would allow designing and implementing policies and strategies that emphasize the usefulness, efficiency, and the adequate help and guidance, and user privacy issues for increasing the adoption of social media during small business operations.

Keywords: Small and Medium Enterprises (SMEs), Social Media, and Behavioral Intention.

1. INTRODUCTION

Small and Medium Enterprises (SMEs) are regarded as the engine of growth of the world economy because they contribute to more than eighty percent of a nation's economic growth and account for more than ninety percent of the entire businesses (Stephen Childers, 2008). According to Jagongo and Kinyua (2013), SMEs play a significant role in creating employment opportunities as well as ensuring economic stability in many countries across the globe. Small and Medium-sized Enterprises (SMEs) are recognized as the backbone of any economy (Bahaddad, AlGhamdi, & Houghton, 2012; WL Fong, 2011). The SME sector is viewed as an essential component of modern industrialized societies (Rahayu & Day, 2015). SMEs represent an important part of the emerging economies of developing countries, more specifically in Bangladesh.

About 6.0 million SMEs are actively performing in Bangladesh which were contributing 25 per cent of the total GDP, employing about 31 million people and providing 75 per cent of household income (Asian Development Bank, 2017). Various categories of SMEs together contribute between 80 to 85 per cent of industrial employment and 23 percent of total employment in Bangladesh (Ahmed & Chowdhury, 2009). Moreover, the Bangladesh Bureau of Statistics (2018) indicated that SMEs in Bangladesh accounted

for more than 99% of private sector industrial establishments and created job opportunities for 70%–80% of the non-agricultural labor force. Chowdhury and Azam (2015) says that more than 90% of the industrial enterprises in Bangladesh are in the SME size-class.

Social media represent a new way of doing business (Andzulis, Panagopoulos, & Rapp, 2012; Aral, Dellarocas & Godes, 2013). Social media platforms connect millions of users (Samuel & Joe, 2016). The utilization of ICTs tools like the use of social media in business and organizational settings is relatively new (Wamba & Carter, 2013). These tools have been found to play a crucial role in the success of businesses today (Jagongo & Kinyua, 2013; Kuikka & Äkkinen, 2011) and it allows business to have a presence in online spaces (Culnan, Mchugh, Zubillaga, Uarterly, & Xecutive, 2010). Besides, these areas of potential benefit, researchers have investigated the role of social media in customer knowledge management. For example, Chua and Banerjee (2013) suggested that firms should use social media to gain knowledge about their customers and engage them in knowledge sharing. Another key benefit of social media is that they represent a source of attraction for SMEs to have more flexible forms of collaboration with each other (Dyerson, Harindranath, & Barnes, 2008). Through using the social media tools, businesses can form brand-centric communities and engage customers in rich dialogues about their products (Vlachvei & Notta, 2014).

Perhaps as a result of the lack of literature on social media adoption within the SME context (He, Wang, &Zha, 2014; Durkin, McGowan & McKeown, 2013), little is known about why small firms engage in or avoid the use of technologies (Beier & Wagner, 2014). The significance of social media to SMEs requires further investigation and thus more research into the adoption and use of social media technology is needed (Kim, Lee, & Lee, 2013Aral et al., 2013; Andzulis et al., 2012; Constantinides, Romero & Boria, 2009; He et al., 2014).

The SME sector is a focal point of this research. It makes a significant contribution to employment. This sector has not been explored in terms of its adoption and usage of Information Systems (IS). There have been very few published papers concerning IS. To date, most of the studies related to ICTs use in Bangladesh have addressed their impact on government organizations and large businesses. In summary, then, this study is motivated by the scarcity of research on social media adoption and use by SMEs owners.

The main aim of this study is to empirically examine the factors that influence the owners' behavioral intention to adopt social media among SMEs in a developing country context and to develop and test a framework that guides the adoption process of social media among SMEs. Specifically, Shapero's Entrepreneurial Event (SEE) Model will be utilized to achieve this goal. In a nutshell, the following research questions have been identified to help to achieve this aim:

• What are the factors that influence the SME owners' behavioral intention to adopt social media in Bangladesh?

Several behavioral models have been applied to examine the behavioral intention to use of information technology by end-users. Amongst these models are the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980). Theory of Planned Behavior, (TPB) (Ajzen, 1985), Technology Acceptance Model (TAM) (Davis, 1989), Extension of the Technology Acceptance Model (TAM2) (Venkatesh& Davis, 2000), Diffusion of Innovation Model (DOI) (Rogers, 2010), and Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003). Following these models, in 2003 Venkatesh and his colleagues developed a new model called Unified Theory of Acceptance and Use of Technology (UTAUT).

2. CONCEPTUAL MODEL AND HYPOTHESIS DEVELOPMENT

2.1 Background



Source: Adapted from (Shapero & Sokol, 1982; Krueger, 1993; Krueger, &Brazeal, 2018; Krueger, 2000)

Figure 1: Research Model

One of the first intention-based and comprehensive academic models is the Entrepreneurial Event Model (EEM), proposed by (Shapero & Sokol, 1982). Shapero's model posited that "inertia guides human behavior until something interrupts or displaces that inertia." Shapero also suggested that displacement can be negative or positive where individuals are attracted to innovation and initiate action. After our evaluation of the theories, we resolved that the integration of frameworks is the way forward for understanding the

contextual issues associated with social media adoption in developing countries SMEs. Thus, we integrated one of the most commonly used models; the UTAUT established by Venkatesh et al. (2003). Our survey of existing literature shows that certain models dominate SMEs adoption research. Therefore, we revise the EEM (Shapero & Sokol, 1982; Krueger, 1993) and validate it in the context of technology acceptance, to investigate SME owner's intention to use of social media among SMEs in Bangladeshi context. This research aimed to empirically examine the factors affecting the owners' behavioral intention to adopt social media among SMEs with the view of developing country's contexts.

From this perspective, the SEE model has been used for identifying behavioral intention to use of Social Media. This model can measure individual intention towards technology adoption and use. The constructs for the research model that are integrated from the Entrepreneurial Event model are (i) perceived desirability, (ii) perceived feasibility, (iii) propensity to act and (iv) behavioral intention to use. The following section discusses several empirically testable hypotheses from the proposed model. These hypotheses describe the relationships between each of the individual factors on the intention to use. The research model is shown in Figure 1.

2.2. Universal Behavioral Intention (Bi) to Use of Technology Acceptance Predictors

2.2.1 SMEs Owner's Performance Expectancy (PE)

Venkatesh et al. (2003) define PE as the degree to which owners of SMEs' perceive that using technology is useful in their job and helps them to attain benefit in their enterprise. Prior studies found that PE has the strongest effect on BI to use new technology (Venkatesh & Zhang, 2010; Dijk, Peters & Ebbers, 2008) Given that PE is considered as distinct optimal determinants of behavioral intention to use of social media among the SMEs, this study hypothesizes that:

H1: SME owners' PE will have a significant effect on BI.

2.2.2 SMEs Owner's Perceived Venture Desirability (PD)

According to Krueger and Brazeal (2018), PD refers to the extent to which an individual feel personally capable of starting a business or performing the task. PD is the strongest determinant of BI to the use of technology (Zampetakis, 2008; Guerrero, Rialp & Urbano, 2008; Nasurdin, Ahmad, & Lin, 2009). A study by Fitzsimmons and Douglas (2011) suggested that PD positively influences the behavioral intention to use technology in their jobs. Besides, it is postulated that PD has a significant positive influence on owners' BI to use technology like social media among SMEs. Following the above rationale, this study hypothesizes that:

H2: SME owners' PD will have a significant effect on BI.

2.2.3 SMEs Owner's Perceived Venture Feasibility (PF)

PF is conceptualized by Shapero and Sokol (1982) in the Entrepreneurial event model as the degree to which owners perceived that they are capable and have the skill to use technology in their job. Prior research in the technology acceptance context found that PF has a positive effect on BI to use of technology in SMEs over time (Liñán & Santos, 2007; Shook & Bratianu, 2010). Therefore, a high level of PF will lead to a moderate level of the SME owners' BI to the use of technology. Based on above prior studies following hypothesis was posited:

H3: SME owners' PF will have a significant effect on BI.

2.2.4 SMEs Owner's Propensity to Act (PA)

Shapero and Sokol (1982) defined the PA as a degree to which perceive disposition to use of technology decision, as it reflects the volitional components of intentions. This study changed the word to a propensity to use, and it was conceptualized as the SME owners' decision to act. The PA was conceptualized as a stable personality trait (Krueger, 2000) and is closely related to the locus of control (Bateman & Crant, 1993). The PA as direct determinants of BI to use of technology in SMEs and find a significant and positive relationship between PA and SME owners' BI that investigated by Krueger (1993). Given that PA as distinct predictors of BI to use of social media in SMEs, this study hypothesizes that:

H4: SME owners' PA will have a significant effect on BI.

2.2.5 SMEs Owner's Technological Competence (TC)

Rogers (2010) identified five attributes of the technology that may influence the decision to adopt or reject a given technology in organizations. Tornatzky, Fleischer, and Chakrabarti (1990) explain the factors that affect a firm's decision to use technology like social media and e-commerce (Nezakati, Jofreh, Liong & Asgari, 2012). The TC is serving as a foundation for understanding the internal and external factors that conceptualized by (Van Huy, Rowe, Truex, & Huynh, 2012; Awa, Ojiabo & Emecheta, 2015). Therefore, it is postulated that a higher level of TC will increase SMEs owners' BI to use of social media among the SMEs. The above discussion led this study to posit the following hypothesis:

H5: SME owners' PF will have a significant effect on BI.

3. METHODOLOGY OF THE STUDY

3.1 Measurement Instruments

This is the first empirical study to investigate the factors that influence the adoption of social media by SME owners. To test the research model, the author designed an empirical study using a survey tool that measures the variables anticipated to predict the owners' intention to use social media. The detailed items of each construct and their sources are listed in Table 1.

Construct	Code	Corresponding Items	Source
	PF-1	I find social media to be useful in my business	(Venkatesh et al. 2003)
	121	i mid sooral media to be useful in my business.	(Venkatesh et al., 2005)
SMEs Owner's	PE-2	Using social media increases my productivity.	
Performance	PE-3	Using social media, increase my chances of getting more benefit in	
Expectancy	120	my business	
(PE)		-	
	PE-4	Using social media gives me competitiveness power in my business.	
	PD-1	Using IS social media in my business is much more desirable for me.	(Shapero & Sokol, 1982;
			Krueger, 1993)
SMEs Owner's	PD-2	I would enjoy the personal satisfaction of using social media in my	
Desirability (PD)		business.	
	PD-3	Using social media in my business is an attractive idea.	
	PD-4	I am very enthusiastic to use social media in my business	
	I D-4	1 and very charastic to use social media in my business	
SMEs Owner's	PF-1	I would feel comfortable using social media in my business.	(Shapero & Sokol, 1982;
Perceived Venture	PF-2	I have the skills and canabilities required to use social media	Krueger, 1993)
Feasibility (PD)	11 2		
	PF-3	It would be very feasible for me to use social media in my business.	
	PA-1	I will learn to operate social media in my business.	(Shapero & Sokol, 1982;
			Krueger, 1993; Krueger,
	PA-2	I will use social media to achieve more opportunity in my business.	2000)
SMEs Owner's	PA-3	I will use social media because I cherish the feeling of useful service.	
Propensity to Act			
(PA)	PA-4	I will use social media that enables me to run my business	
		successiony.	
SMEs Owner's	TC-1	I believe social media is status symbols	(Van Huy et al., 2012;
Technological	TC-2	The result of using social media applications is apparent to me	Awa et al., 2015)
Competence (TC)	10.2	The result of using social media appreadons is apparent to me.	
	TC-3	Social Media allow me to better communicate with our customer	
	BI-1	I predict I would use social media if it is available in the future.	(Venkatesh et al., 2003;
			Shapero & Sokol, 1982;
Behavioral Intention	BI-2	I have a serious thought of using social media in my business if it	Stopford &
(B1) to Use of Social Media among SMFs		was available, in the next 2 months.	Baden- Fuller, 1994)
Storie among Styles	BI-3	I plan to use current social media in my work in the next year.	

Table 1. Summers of Construct with Massurement Items	
Table 1: Summary of Construct with Measurement items	

3.2 Data Collection/Measures

The present study develops a research framework to predict intention to adopt and use social media by SME owners in their business. Questionnaires were designed to gather information about the constructs in the research model. This research used a questionnaire consisting of three sections. The first section introduced the research area and objectives of the study. The second section included demographic questions (gender, age, education, marital status, internet knowledge, internet usage, network facility at work). The third section included 29 items designed to measure seven constructs, which were adapted from previous research (Venkatesh et al., 2003; Shapero & Sokol, 1982; Stopford & Baden- Fuller, 1994; Krueger, 1993; Van Huy et al., 2012; Awa et al., 2015). A Likert scale is appropriate when the research needs to measure the respondents' intentions toward constructs. Thus, the 5 point- Likert type scale was built to gather the information. We chose owners of the business because s/he is the most influential people affecting innovation and change in organizations. The questionnaires were distributed based on probability sampling to the SME owners. A total of 390 questionnaires were sent to SME owners, and 207 complete questionnaires were collected with a respondent rate of 53.08%.

3.3 Data Analysis Tools

The data collection effort began the last week of September 2018 and continued for 42 days. Responses were collected from 207 participants. Statistical analyses were conducted using SPSS - 23 and AMOS -23. A preliminary regression analysis was conducted to remove outliers that exceeded limits on specific measures. Seven surveys were removed during this step, leaving a final sample size of 200, which satisfies the generalizability conditions and the adequacy of analysis. Moreover, the internal consistency of the scale items is checked with Cronbach's alpha coefficient while the convergent and discriminant validities are checked with the multitrait-multimethod matrix. Finally, the research model was analyzed using Structural Equation Modeling (SEM).

4. DATA ANALYSIS

4.1 Demographic Information of Respondents

As shown in table 2, 193 (96.5%) were male and 7 (3.5%) were female. Also, the age distribution shows that about two-thirds of respondents (63.5%) were aged 36 - 55 years old and one-third of respondents 73 (36.5%) were aged 18 - 35 years old. Respondents were asked to specify their education level. The majority of the respondents have been educated to college or higher education level: 83 (41.5%) are bachelor, while 43(21.5%) and 53 (26.5%) have a high school or college level of education. More than 60% of the respondents are married. Over 90 (55.0%) of the sample has a high level of internet knowledge and experience. Also, 147 (73.5%) of the respondents used the internet a few times a week; 133 (66.5%) of the respondents have dial-up connections at work; 28% of the respondents have broadband at work, and only 9 (4.5%) have no computer facilities in their workplace. Consequently, this study has significant effects on the SME owners' intention to adopt social media in their business.

Va	Variables		Percentage (%)
Gender	Male	193	96.5
	Female	007	3.50
Age	18 - 35 Years Old	073	36.5
	36 - 55 Years Old	127	63.5
Education	High School	043	21.5
	College	053	26.5
	Bachelor	083	41.5
	Higher Education	021	10.5
Marital Status	Single	066	33.0
	Married	134	67.0
Internet Knowledge	Poor	039	19.5
	Moderate	071	35.5
	Good	046	230
	Very Good	044	22.0

Table 2: Demographic Information of Respondents

Internet Usage	Once a month	035	17.5
	Once a Week	018	9.00
	Few Times a Week	147	73.5
Network Facility at Work	No Computer	009	4.50
	Dialup	133	66.5
	LAN	039	19.5
	Broadband	019	9.50

4.2 Descriptive Statistics of the Constructs

According to the research setting, the five constructs of the research model affecting the SME owners' behavioral intention to use social media in business; these results, including average, median, and standard deviation of the constructs, are presented in table 3 below-

		I					
Constructs	PE	PD	PF	PA	TC	BI	
Mean	4.09	3.88	4.00	3.81	4.10	3.98	
Median	4.00	4.00	4.00	4.00	4.00	4.00	
Standard Deviation	0.96	0.97	1.03	0.89	1.14	0.99	

Table 3: Descriptive Statistics of the Constructs

The results in Table 3 shows that, in general, the BI to adopt social media is quite positive among those who have been using the technology; the average is around 4.00 (of maximum 5.00) in all variables related to PE (4.09), PD (3.88), PF (4.00), PA (3.81) and TC (4.10). The perception of PA appears to be somehow lower, with an average of 3.81. The high average of the TC (4.10) variable indicates that users have a positive attitude towards using social media services because they are more efficient. This means that user EE and TC is an important factor in such technology adoption. Thus, SME owners should consider ways to increase PE in terms of saving time and cost, regarding these services.

4.3 Investigating Univariate Normality

Normality refers to the shape of the data distribution for an individual variable and its correspondence to the normal distribution. According to Hair, Anderson, Tatham, and Black (2010) univariate normality can be tested graphically or statistically. The statistical technique for testing univariate morality is Pearson's Skewness parameter, while the graphical analysis is a visual check of the histogram that compares the experiential data values with a distribution approximating the normal distribution. In this study, a visual examination of the histogram of the data was mainly used to test the univariate normality that the shapes of all univariate distribution were reasonably usual and acceptable. Additionally, the finding in Table 4 indicates that all values of the variables were within the accepted range of skewness and kurtosis i. e. -2.58 + 2.58 (Hair et al., 2010).

Table 4: Univariate Normality of the Construct

Constructs	PE	PD	PF	РА	TC	BI
Skewness	-0.97	0.37	-0.54	-1.03	-0.23	0.53
Kurtosis	0.23	-0.70	0.28	1.86	0.66	0.26

4.4 Internal Consistency of the Contracts

The reliability of the measurement of the constructs was analyzed with Cronbach's Alpha, which measures the internal consistency of the factor measured by different variables. From Table 5, it is seen that the reliability of the factor measurement is relatively high and excellent, the value of Cronbach's Alpha varying between 0.73 in PA and 0.95 in TC. This indicates that the constructs are internally consistent and reliably measured. The weakest value of reliability was in PA (0.73), which can be following from the fact that only four items were used for measuring this construct; but according to Nunnally (1978), this value is at an acceptable level.

Constructs	No. of Items	Cronbach's Alpha (α)	Comments
PE	4	0.94	Excellent Reliability
PD	4	0.81	High Reliability
PF	3	0.93	Excellent Reliability
РА	4	0.73	High Reliability
ТС	3	0.95	Excellent Reliability
BI	3	0.83	High Reliability

Table 5: Reliability Results

4.5 Assessment of Construct Validity and Unidimensionality

The main objective of the Confirmatory Factor Analysis (CFA) is to assess the construct validity of the proposed measurement model (Hair et al., 2010). Assessing construct validity using the CFA involved an assessment of the convergent validity and discriminant validity.

4.5.1 Convergent Validity

Based on the CFA results, we analyzed the convergent validity of all the multiple-item scales, following the guidelines from previous literature (Fornell & Larcker, 1981). Convergent validity was assessed in terms of factor loadings and average variance extracted (AVE). According to Hair et al. (2010), convergent validity requires a factor loading greater than 0.50 and an AVE no less than 0.70. As shown in Table 6, all items had significant factor loadings higher than 0.50. Reliability was assessed in terms of Composite Reliability (CR), which measures the degree to which items are free from random error and therefore yield consistent results. CR in the measurement model ranged from 0.892 to 0.962 (see Table 6), above the recommended cutoff of 0.70 (Fornell & Larcker, 1981; Nunnally, 2010).

Variables	Items	Estimated	CR	AVE
		(Loadings)		
Performance Expectancy	PE-1	0.918	0.960	0.857
	PE-2	0.928		
	PE-3	0.913		
	PE-4	0.944		
Perceived	PD-1	0.842	0.960	0.822
Desirability	PD-2	0.979		
	PD-3	0.930		
	PD-4	0.870		
Perceived	PF-1	0.920	0.907	0.766
Feasibility	PF-2	0.905		
	PF-3	0.795		
Propensity	PA-1	0.679	0.892	0.776
to Act	PA-2	0.603		

 Table 6: Convergent Validity Results of the Measurement Model

	PA-3	0.973		
	PA-4	0.849		
Technological Competence	TC-1	0.946	0.962	0.895
	TC-2	0.949		
	TC-3	0.943		
Behavioral	BI-1	0.913	0.959	0.885
Intention	BI-2	0.951		
	BI-3	0.959		

4.5.2 Discriminant Validity

Discriminant validity is assessed by comparing the square roots of average variance extracted (AVE) to the inter-factor correlations between constructs. According to Fornell and Larcker (1981) to test discriminant validity, the square roots of AVEs should be higher than the correlations to satisfy discriminant validity requirements. Moreover, Hair et al. (2010) asserted that if the AVEs are higher than the squared inter-scale correlations of the construct, then discriminant validity is supported. In this study, discriminant validity was assessed by comparing the absolute value of the correlations between the constructs and the square roots of AVEs by constructs. As shown in Table 7, all squares root of the AVEs (diagonal cells) are higher than the correlations between constructs and that confirms adequate discriminant validity.

Table 7: Discriminant Validity Results of the Measurement Model

Constructs	PE	PD	PF	PA	ТС	BI
Performance Expectancy	0.926					
Perceived Desirability	0.610	0.907				
Perceived Feasibility	0.416	0.533	0.875			
Propensity to Act	0.579	0.505	0.532	0.880		
Technological Competence	0.658	0.658	0.800	0.777	0.946	
Behavioral Intention	0.540	0.450	0.557	0.551	0.464	0.940

4.6 The Structural Model

4.6.1 Results of the best fitting model

SEM is the most suitable analysis to estimate the strength of the causal relationship of constructs. Bagozzi and Yi (1988) suggested a set of fit indices used to examine the structural model (refer to Table 8; The Comparative Fit Index (CFI), Goodness of Fit Index (GFI) (Hair et al., 2010) Normed Fit Index (NFI), and Root Mean Square Error of Approximation (RMSEA) were used to judge the model fit. The Comparative Fit Index is a recommended index of overall fit (Anderson & Gerbing, 1988) GFI measures the fitness of a model compared to another model (Hair et al., 2010), NFI measures the proportion by which a model is improved in terms of fit compared to base model, and the last RMSEA provides information in terms of discrepancy per degree of freedom for a model. As suggested in the literature (Bentler, 1990; Kline, 2011) model fit was assessed by several indices. The accepted thresholds for these indices χ^2/df ratio should be less than 3; the values of GFI, NFI, CFI, and IFI should be greater than 0.9; and RMSEA is recommended to be up to 0.05 and acceptable up to 0.08 (Gefen & Straub, 2005). As shown in Table 8, all of the model-fit indices exceed the respective common acceptance levels suggested by previous research, demonstrating that the model exhibited a good fit with the data collected. Thus, we could proceed to examine the path coefficients of the structural model.

Fit Indices		Benchmark	Value	Comments	
Absolute Fit Measure	ures	CMIN (x ²)		42.426	
		DF		32	
		CMIN $(x^2) / DF$	3.00	1.3251	Good Fit
Incremental Measures Parsimonious Measures		GFI	0.90	0.9668	Good Fit
		RMSEA	0.08	0.0467	Good Fit
	Fit	AGFI	0.80	0.921	Good Fit
		NFI	0.90	0.985	Good Fit
		CFI	0.90	0.993	Good Fit
		IF	0.90	0.994	Good Fit
		RFI	0.90	0.957	Good Fit
	Fit	PCFI	0.50	0.475	Good Fit
		PDF	0.50	0.440	Good Fit

Table 8: Results of the Best Fitting Model

DF = Degrees of Freedom, GFI = Goodness of Fit Index, RMSEA = Root Mean Square Error of Approximation, AGFI = Adjusted Goodness of Fit Index, NFI = Normed Fit Index, CFI = Comparative Fit Index, IFI = Incremental Fit Index, RFI = Relative Fit Index, PCFI = Parsimony Comparative Fit Index, PNFI = Parsimony Normed Fit Index.

4.6.2 Path Coefficients of the Structural Model

The test of the structural model was performed using SEM. The test of the structural model includes: (i) estimating the path coefficients, which indicate the strengths of the relationships between the dependent variables and independent variables, and (ii) the R-square value, which represents the amount of variance explained by the independent variables. The path coefficients in the SEM model represent standardized regression coefficients (β). Figure 3 shows the results of the analysis. The squared multiple correlations for the structural equations index indicates that 67% of the variation in the dependent variable is explained by the variation in the independent variables. Properties of the causal paths (standardized path coefficients (β), p-value and hypotheses result) are shown in Table 9 and displayed in figure 2



Figure 2: Structural Model

4.6.3 Testing the Hypotheses on Behavior Intention

Table 9, and Figure 2 depict that it is worth noting that the effect of PE on BI was significant at 0.05 level ($\beta 1 = 0.316$, t = 1.93). Thus, H1 was supported. Using social media would improve business performance and productivity. As expected, PD had an insignificant influence on BI ($\beta 2 = -0.092$, t = 0.63). Thus, H2 was not supported. Consistent with the theoretical expectation, PF had a significant positive influence on BI ($\beta 3 = 0.497$, t = 3.56) at 0.05 level, suggesting support for H3. Likewise, the effects of PA on BI were insignificant at the 0.05 level ($\beta 4 = -0.112$, t = 1.05). Hence, H4 was not supported. SME owners would feel comfortable using social media in their own business. They would also be able to use social media even if there was no one around to help them. The final hypothesis is about the relationship between TC on BI to use of social media. As shown in Table 9 ($\beta 5 = -0.165$, t = 1.84, p = 0.05), hypothesis H5 was supported. In this respect, SME owners are more likely to be influenced by TC. However, SME owners' BI to adopt social media strongly relies on PE, PF, and TC. Therefore, an increase in the level of PE, PF, and TC; increases future usage intentions of social media.

Table 9: Results of Hypotheses Testing on BI

Humothosia	Dath	9 Volue	t Voluo	D Volue	Humothogia Statua
Hypothesis	rau	p - value	t-value	r -value	nypotnesis Status
	IV DV	_			
\mathbf{H}_{1}	PE → BI	0.316	1.93	0.05	Supported**
\mathbf{H}_{2}	PD → BI	-0.092	0.63	0.52	Not supported
\mathbf{H}_{3}	PF → BI	0.497	3.56	0.00*	Supported**
\mathbf{H}_4	PA → BI	-0.112	1.05	0.29	Not supported
H_5	TC \rightarrow BI	0.165	1.84	0.05	Supported**

5. **DISCUSSIONS**

This study confirms this fact as it was clear from participants' answers that the main use of social media was to promote products and services. Further, the results show that few adopters claimed an increase in sales due to being present in social media. The results may suggest that SMEs need to be aware of the benefits of social media for their businesses, as this would help them to adopt these technologies. Interestingly, the results of this study show that few of the non-adopters SMEs were aware of the benefits of social media. This finding is consistent with earlier studies (Jones, Clarke-Hill, Comfort, & Hillier, 2008; Ramdani & Kawalek, 2007) that investigated the adoption of enterprise systems in SMEs. Consistent with previous studies exploring the adoption of other types of ICTs (Safari, Fricke & Wachendorf, 2016; Ifinedo, 2011; Ramdani, Kawalek, & Lorenzo, 2009' Ramdani & Kawalek, 2007; Grandon & Pearson, 2004; Scupola, 2003; Lertwongsatien & Wongpinunwatana, 2003; Premkumar & Roberts, 1999), relative advantage was found to influence the adoption of social media by SMEs. In respect to social media adoption in the SME setting, the results of this study support the findings of Ainin, Parveen, Moghavvemi, Jaafar, and Shuib (2015) who indicated that social media managers of SMEs. In this study, PF was found to be an important factor that influences the adoption of social media by SME owners. This finding is following many previous studies (Oliveira, Thomas, & Espadanal, 2014; Grandon & Pearson, 2004; Thong, 1999; Grover, 1993) indicating that PF has a direct impact on the adoption of ICTs tools. It is also consistent with (Ramdani & Kawalek, 2007) who found PF to be a significant determinant of Enterprise Systems (EAs) adoption. Thus, this may suggest that the majority of investigated SMEs perceive social media to be easy to learn and simple to use. Regarding PA, the results of this study show a strong sign of this factor with the SMEs' decision to adopt social media. This is consistent with the findings of earlier studies (Ainin et al., 2015; Wang & Yang, 2010; Ramdani & Kawalek, 2007; Grandon & Pearson, 2004) which found that PA is a significant factor in the adoption of technology. TC was found an important factor influencing the adoption of social media by SMEs. This finding supports previous research into IS innovations adoption (Azam, 2015; Hussin & Noor, 2005; Seyal & Abdrahman, 2003). It also confirms the results of (Ramdani & Kawalek, 2007). In a social media context, the results of a study by Wong (2012) indicated that the personal usage of Facebook is a stronger driver of business usage. The experience and familiarity with social media on a personal level may assist decision-makers to adopt them at the corporate level. This means that personal usage of social media applications may facilitate the decision to adopt them in the enterprises.

6. IMPLICATIONS

The study's empirical findings could also have useful implications for SMEs from different perspectives like general and methodological. Two general implications are arising from the empirical findings. The most obvious is the development of a model that can be used by Bangladeshi SMEs to evaluate the technological conditions under which social media technologies. Another important general implication, raised by some of the interviewees in phase one of the research study, is that SMEs should consider the adoption of social media at an early stage rather than following a 'wait and see' strategy. Being an early adopter has been suggested to be advantageous in the case of any IS innovation as SMEs will be able to reach customers and expand their market share (Lertwongsatien & Wongpinunwatana, 2003). Moreover, the use of the UTAUT and EEM model serves as a practical model for examining the factors that influence the SME owners' intention to adopt social media. The findings of this study would help and

provide useful information to the researchers and practitioners, such as government policy decision-makers. This would allow us to design and implement policies and strategies for increasing the adoption of social media in enterprises.

7. CONCLUSIONS

This paper contributed to the study of the adoption of social media in SMEs by applying a model that joins UTAUT and EEM, along with technological competence. The effort was to measure the contribution of the separate variables in the presence of a multitude of effects. The results demonstrated the importance of these factors in influencing intention to use in the UTAUT model. The newly developed model was validated in the context of technology acceptance, and the results showed that the model can predict the SME owners' intention to use social media in enterprises. The integrated model can account for 54.4 % of the variance in intention, which is impressive and relatively high. Overall, the findings of this study significantly enhance our understanding of owners' technology adoption like social media among the SMEs.

8. LIMITATIONS AND FUTURE RESEARCH DIRECTION

The findings can also provide useful recommendations for the development of practice and policymaking. This study used a sample with a possible geographical bias as it focused on SMEs located in one geographical area of Barishal City Corporation (BCC), Barishal division, Bangladesh; this introduces difficulties in generalizing the results to other SMEs in the remaining governorates and regions of Bangladesh. Given that the research has examined the adoption of social media among SMEs in only one region in Bangladesh, future research is needed to replicate the study in other regions of the country to help to assess the generalizability of the results and to understand potential differences between SMEs in rural and urban areas. The second strand of future research in this area would be to carry out cross-national/cross-regional studies. Conducting cross-national/cross-regional studies would deepen our knowledge about the adoption of social media in SME settings.

REFERENCES

- [1] Ahmed, K., & Chowdhury, T. A. (2009). Performance evaluation of SMEs of Bangladesh. International journal of Business and Management, 4(7), 27-38.
- [2] Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Shuib, N. L. M. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. Industrial Management and Data Systems, 115(3), 570–588.
- [3] Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In Action Control (pp. 11–39).
- [4] Ajzen, I., &Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Prentice-Hall.
- [5] Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. Psychological Bulletin, 103(3), 411–423.
- [6] Andzulis, J., Panagopoulos, N. G., & Rapp, A. (2012, July 1). A review of social media and implications for the sales process. Journal of Personal Selling and Sales Management, Vol. 32, pp. 305–316.
- [7] Aral, S., Dellarocas, C., & Godes, D. (2013). Introduction to the Special Issue —Social Media and Business Transformation: A Framework for Research. Information Systems Research, 24(1), 3–13.
- [8] Asian Development Bank (2017). Strategic Issues and Potential Response Small and Medium Enterprise Development and Export Expansion. Asian Development Bank (ADB), Dhaka.
- [9] Awa, H. O., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs. Journal of Science and Technology Policy Management, 6(1), 76–94.
- [10] Azam, M. S. (2015). Diffusion of ICT and SME performance. Advances in Business Marketing and Purchasing, 23A, 7–290.
- [11] Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. Journal of the Academy of Marketing Science, 16(1), 74–94.
- [12] Bahaddad, A. A., AlGhamdi, R., & Houghton, L. (2012). To What Extent Would E-mall Enable SMEs to Adopt E-Commerce? International Journal of Business and Management, 7(22).
- [13] Bangladesh Bureau of Statistics (2018). Report on Laboure Force Survey, 20015-16, BBS, April.
- [14] Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior: A measure and correlates. Journal of Organizational Behavior, 14(2), 103–118.
- [15] Beier, M., & Wagner, K. (2014). Individual and Corporate Decisions to Adopt Social Media: Perception of Risks and Benefits in Small Firms. SSRN Electronic Journal.
- [16] Bentler, P. M. (1990). Comparative fit indexes in structural models. Psychological Bulletin, 107(2), 238-246.
- [17] Chowdhury, M. S. A., Azam, M. K. G., & Islam, S. (2015). Problems and Prospects of SME Financing in Bangladesh. Asian Business Review, 2(2).
- [18] Chua, A. Y. K., & Banerjee, S. (2013). Customer knowledge management via social media: The case of Starbucks. Journal of Knowledge Management, 17(2), 237–249.
- [19] Constantinides, E., Romero, C. L., &Boria, M. A. G. (2009). Social media: A new frontier for retailers? In European Retail Research (Volume 22) (pp. 1–28).
- [20] Culnan, M. J., Mchugh, P. J., Zubillaga, J. I., Uarterly, M. Q., & Xecutive, E. (2010). How Large U.S. Companies can use twitter and other social media to gain business value 1,2 the need for a new approach to implementing social media. in mis quarterly executive (vol. 9).
- [21] Davis, F. D. (1989). Preparation of Rutile TiO 2 Films by RF Magnetron Sputtering Related content Role of He Gas Mixture on the Growth of Anatase and Rutile TiO 2 Films in RF Magnetron Sputtering KunioOkimura and Akira Shibata -Deposition of High-Quality TiO 2 Films by RF M. Japanese Journal of Applied Physics KunioOkimura et Al Jpn. J. Appl. Phys, 34(September), 319–340.

- [22] Dijk, V. A. G. M., Peters, O., & Ebbers, W. (2008). Explaining the acceptance and use of government Internet services: A multivariate analysis of 2006 survey data in the Netherlands. Government Information Quarterly, 25(3), 379–399.
- [23] Durkin, M., McGowan, P., &McKeown, N. (2013). Exploring social media adoption in small to medium-sized enterprises in Ireland. Journal of Small Business and Enterprise Development, 20(4), 716–734.
- [24] Dyerson, R., Harindranath, G., & Barnes, D. (2008). National survey of SMEs' use of IT in four sectors. 2nd European Conference on Information Management and Evaluation, ECIME 2008, 12, 139–148.
- [25] Elasrag, H. (2011). Enhancing the competitiveness of the Arab SMEs.
- [26] Fitzsimmons, J. R., & Douglas, E. J. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. Journal of Business Venturing, 26(4), 431–440.
- [27] Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. Journal of Marketing Research, 18(1), 39.
- [28] Gefen, D., & Straub, D. (2005). A Practical Guide To Factorial Validity Using PLS-Graph: Tutorial And Annotated Example. Communications of the Association for Information Systems, 16.
- [29] Grandon, E. E., & Pearson, J. M. (2004). Electronic commerce adoption: An empirical study of small and medium US businesses. Information and Management, 42(1), 197–216.
- [30] Grover, V. (1993). An Empirically Derived Model for the Adoption of Customer-based Interorganizational Systems. Decision Sciences, 24(3), 603–640.
- [31] Guerrero, M., Rialp, J., & Urbano, D. (2008). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. International Entrepreneurship and Management Journal, 4(1), 35–50.
- [32] Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2010). Multivariate Data Analysis (7th Edition). In Uppersaddle River, New Jersey: Pearson Education International.
- [33] He, W., Wang, F. K., & Zha, S. (2014). Enhancing social media competitiveness of small businesses: Insights from small pizzerias. New Review of Hypermedia and Multimedia, 20(3), 225–250.
- [34] Hussin, H., & Noor, R. M. (n.d.). Innovating business through e-commerce: exploring the willingness of malaysiansmes.
- [35] Ifinedo, P. (2011). Internet/e-business technologies acceptance in Canada's SMEs: An exploratory investigation. Internet Research, 21(3), 255–281.
- [36] J. Stephen Childers, J. (2008). Small Business E-Commerce Adoption through Qualitative Lens: Theory and Observations. Journal of Small Business Strategy, 19(1), 35–54.
- [37] Jagongo, A., & Kinyua, C. (2013). The Social Media and Entrepreneurship Growth (A New Business Communication Paradigm among SMEs in Nairobi). International Journal of Humanities and Social Science, 3(10), 213–227.
- [38] Jones, P., Clarke-Hill, C., Comfort, D., & Hillier, D. (2008). Marketing and sustainability. Marketing Intelligence & Planning, 26(2), 123–130.
- [39] Kim, H. D., Lee, I., & Lee, C. K. (2013, March). Building Web 2.0 enterprises: A study of small and medium enterprises in the United States. International Small Business Journal, Vol. 31, pp. 156–174.
- [40] Kline, R. B. (2011). Principles and practice of structural equation modeling.
- [41] Krueger, Jr., N. F., & Brazeal, D. V. (2018). Entrepreneurial Potential and Potential Entrepreneurs. REGEPE Revista de Empreendedorismo e Gestão de PequenasEmpresas, 7(2), 201–226.
- [42] Krueger, N. (1993). The Impact of Prior Entrepreneurial Exposure on Perceptions of New Venture Feasibility and Desirability. Entrepreneurship Theory and Practice, 18(1), 5–21.
- [43] Krueger, N. (2000). The Cognitive Infrastructure of Opportunity Emergence. Entrepreneurship Theory and Practice, 24(3), 5–23.
- [44] Kuikka, m., & äkkinen, m. (2011). Association for information systems ais electronic library (aisel) determining the challenges of organizational social media adoption and use recommended citation kuikka, meri and äkkinen, miia, "determining the challenges of organizational social media adoption and use."
- [45] Lertwongsatien, C., & Wongpinunwatana, N. (2003). E-commerce adoption in thailand: An empirical study of small and medium enterprises (smes). Journal of Global Information Technology Management, 6(3), 67–83.
- [46] Liñán, F., & Santos, F. J. (2007). Does social capital affect entrepreneurial intentions? International Advances in Economic Research, 13(4), 443–453.
- [47] Nasurdin, A. M., Ahmad, N. H., & Lin, C. E. (2009). Examining a model of entrepreneurial intention among Malaysians using SEM procedure. European Journal of Scientific Research, 33(2), 365–373.
- [48] Nezakati, H., Jofreh, M., Liong, G. L. W., & Asgari, O. (2012). Assessing e-commerce adoption by small and medium enterprises in Malaysia, Singapore and Thailand. World Applied Sciences Journal, 19(10), 1406–1411.
- [49] Nunnally, J. (2010). Psychometric Theory 3E.
- [50] Nunnally, J. C. (1978). Psychometric Theory (2 editioned).New York: McGraw Hill Book company. McGraw Hill Book Company.
- [51] Oliveira, T., Thomas, M., & Espadanal, M. (2014). Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors. Information and Management, 51(5), 497–510.
- [52] Premkumar, G., & Roberts, M. (1999). Adoption of new information technologies in rural small businesses. Omega, 27(4), 467–484.
- [53] Rahayu, R., & Day, J. (2015). Determinant Factors of E-commerce Adoption by SMEs in Developing Country: Evidence from Indonesia. Procedia - Social and Behavioral Sciences, 195, 142–150.
- [54] Ramdani, B., & Kawalek, P. (2007). SME adoption of enterprise systems in the Northwest of England: An environmental, technological, and organizational perspective. IFIP International Federation for Information Processing, 235, 409–429.
- [55] Ramdani, B., Kawalek, P., & Lorenzo, O. (2009). Predicting SMEs' adoption of enterprise systems. Journal of Enterprise Information Management, 22, 10–24.
- [56] Rogers, E. M. (2010). Diffusion of innovations. Simon and Schuster.

- [57] Safari, H., Fricke, T., & Wachendorf, M. (2016). Determination of fibre and protein content in heterogeneous pastures using field spectroscopy and ultrasonic sward height measurements. Computers and Electronics in Agriculture, 123, 256–263.
- [58] Samuel, B. S., & Joe, S. (2016). Social media and entrepreneurship. Social Sciences (Pakistan), 11(5), 639-644.
- [59] Scupola, A. (2003). The adoption of internet commerce by SMES in the south of Italy: An environmental, technological and organizational perspective. Journal of Global Information Technology Management, 6(1), 52–71.
- [60] Seyal, A. H., & Abdrahman, M. N. (2003). A preliminary investigation of e-commerce adoption in small & medium enterprises in brunei. Journal of Global Information Technology Management, 6(2), 6–26.
- [61] Shapero, A., & Sokol, L. (1982). The Social Dimensions of Entrepreneurship in Encyclopedia of Entrepreneurship. In Englewood Cliffs.
- [62] Shook, C. L., & Bratianu, C. (2010). Entrepreneurial intent in a transitional economy: An application of the theory of planned behavior to Romanian students. International Entrepreneurship and Management Journal, 6(3), 231–247.
- [63] Stopford, J. M., & Baden-Fuller, C. W. F. (1994). Creating corporate entrepreneurship. Strategic Management Journal, 15(7), 521–536.
- [64] Thong, J. Y. L. (1999). An integrated model of information systems adoption in small businesses. Journal of Management Information Systems, 15(4), 187–214.
- [65] Tornatzky, L. G., Fleischer, M. & Chakrabarti, A. K. (1990). Processes of technological innovation, Lexington . 6(3), 326– 340.
- [66] Van Huy, L., Rowe, F., Truex, D., & Huynh, M. Q. (2012). An empirical study of determinants of E-Commerce adoption in SMEs in Vietnam: An Economy in Transition. Journal of Global Information Management, 20(3), 23–54.
- [67] Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. Management Science, 46(2), 186–204.
- [68] Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly: Management Information Systems, 27(3), 425–478.
- [69] Venkatesh, V., & Zhang, X. (2010). Unified theory of acceptance and use of technology: U.S. vs. China. Journal of Global Information Technology Management, 13(1), 5–27.
- [70] Vlachvei, A., & Notta, O. (2014). Social Media adoption and managers' perceptions. International Journal of Strategic Innovative Marketing, 01.
- [71] Wamba, S. F., & Carter, L. (2013). Twitter adoption and use by SMEs: An empirical study. Proceedings of the Annual Hawaii International Conference on System Sciences, 2042–2049.
- [72] Wang, X., & Yang, Z. (2010). The effect of brand credibility on consumers' brand purchase intention in emerging economies: The moderating role of brand awareness and brand image. Journal of Global Marketing, 23(3), 177–188.
- [73] WL Fong, M. (2011). Chinese SMEs and Information Technology Adoption. Issues in Informing Science and Information Technology, 8, 313–322.
- [74] Wong, C. (2012). Facebook Usage by Small and Medium-sized Enterprise: The Role of Domain-Specific Innovativeness. Global Journal of Computer Science and Technology, 12(4), 52–59.
- [75] Zampetakis, L. A. (2008). The role of creativity and proactivity on perceived entrepreneurial desirability. Thinking Skills and Creativity, 3(2), 154–162.

AUTHOR'S PROFILE



GAZI MD. SHAKHAWAT HOSSAIN is a student of Master of Business Administration (MBA), major in Management Science and Engineering (MSE), School of Management (SoM) at Huazhong University of Science and Technology (HUST), Hubei, Wuhan, P.R. China. He obtained the Bachelor of Business Administration (BBA) degree from the program of Management Studies, University of Barishal, Bangladesh. He was faculty first at BBA faculty in this university. His research interest includes Human Resources Management (HRM), Corporate Social Responsibility (CSR), Information System (IS) Innovation, Small and Medium Enterprise (SME), E-government, Green Marketing and Work-Life Balance (WLB). He has published papers in journals such as European Journal of Business and Management, North American

Academic Research, International Journal of Science and Business, International Journal of e-Education, e-Business, e-Management and e-Learning (IJEEEE), International Journal of Academic Research in Economics and Management Sciences and International Journal of Innovative Research.



MARUF HASAN is pursuing his Masters in Administrative Management from College of Public Administration (CPA) at Huazhong University of Science and Technology (HUST), Hubei, Wuhan, P.R. China. He obtained the Bachelor of Business Administration (BBA) degree in Finance and Banking fromManarat International University, Dhaka, Bangladesh. He has servedas President of Manarat International University Business Club (MIUBC). His research interest includes Human Resources Management (HRM), Corporate Social Responsibility (CSR), Public Economics (PE), Public Administration (PA), Small and Medium Enterprise (SME), E-government, Green Marketing and Work-Life Balance (WLB). He has published paper in journal of International Journal of Science and Business.



SAIRA FAREEN is a student of Public Policy. Currently she is pursuing her MS in Administrative Management from College of Public Administration at Huazhong University of Science and Technology, Hubei, Wuhan, PR. China. She has earlier obtained her double bachelor's degrees in Business Administration in Human Resource Management as her major as well as in English Literature. She has taken various courses pertaining to International Relations and International Law. Furthermore, she has taken online courses with British Council pertaining to Developing Policy and its effective implementation. She is a serving as government employee in Pakistan. Her work experience also includes her job in Multinational Banks before joining the public sector. Her research interests include Human Resource Management, Banking and

Finance, New Public Management (NPM), Small and Medium Enterprise (SME), E-Government, and Corporate and Social Responsibility (CSR).