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Determinants of Social Media Marketing Adoption among Small and Medium Enterprises in Dar es Salaam - Tanzania

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ABSTRACT

The general objective of the study was to examine the determinants of social media marketing adoption among Small and Medium Enterprises (SMEs) in Ilala Municipality, Dar es Salaam. The study provides the effects of technological, organizational and environmental factors on adoption of social media marketing in the SMEs sector. This study used descriptive research design; thus primary data were collected using a structured questionnaire, whereas multiple regression analysis was used to analyse the collected data from 122 SMEs owners who were selected through simple random sampling. The SPSS software was used for data analysis. The results from multiple regression analysis showed that technological factors had positive and significant relationship with the adoption of social media marketing in SMEs (p = 0.001). Moreover, the findings showed that organisational factors and adoption of social media marketing were positively related (p = 0.000). Furthermore, the findings indicated that there was positive and significant relationship between environmental factors and adoption of social media marketing in SMEs (p = 0.002). The study concludes that technological, organizational and environmental factors determine social media marketing adoption for SMEs. However, organizational factors are the major determinants of social media marketing adoption in SMEs. The study recommends that the management of SMEs should improve organizational environment such as employee skills by providing training in order to increase the use of social media marketing in SMEs. Government should provide support and comprehensive policy to foster growth of SMEs in Tanzania through adoption of social media marketing, and the SMEs management should accommodate technology innovation to support easy adoption of Social media marketing.

Keywords*: Social Media Marketing, Technological, Organizational and Environmental Factors*

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1.0 Introduction

The adoption of social media is rapidly becoming essential for businesses (Malesev & Cherry, 2021). Social media involve exchanging user-generated content, using real-time feedback and building communities of consumers to support business processes (Effendi et al., 2020; Hartanto & Soelaiman, 2021). Rugova & Prenaj (2016) consider social media as those digital platforms, services and apps built around the merging of content sharing, public communication, and interpersonal connection. Moreover, Malesev & Cherry (2021) add that social media are internet based platforms and contents that allow the formation and exchange of user created contents, usually using either mobile or web-based technologies.

Currently, social media are widely used by large and small companies as marketing tools because they help companies and consumers to co-create products (Khamaludin et al., 2022; Rugova & Prenaj, 2016). Trawnih et al., (2021) suggest that firms can use social media applications in various areas, including sales and marketing, research and development, customer support and operations. Social media adoption in Small and Medium Enterprises (SMEs) has created a lot of opportunities (Patma et al., 2021). Ali-Abbasi et al. (2022) affirm that the unprecedented growth of social media usage has widened up new windows for SMEs to get in touch with their customers. Social media offer an innovative method of reaching out more customers (Rugova & Prenaj, 2016). With the help of social media channels, communications between SMEs and customers have been enhanced at a rapid pace (Malesev & Cherry, 2021; Trawnih et al., 2021). In particular, social media are viewed as essential tools for facilitating and enhancing the degree of customer interaction (Patma et al., 2021). Thus, social media marketing has become an indispensable tool for customer relationship approach in SMEs.

According to Hartanto & Soelaiman (2021), SMEs are very dynamic in their operation. Thus, it is easy for SMEs to adopt new technologies such as the use of social media for marketing activities (Ali-Abbasi et al., 2022). SMEs are suitable adopters of change, are more flexible in their operations, and better adapt and accept recent technological changes than large firms (Malesev & Cherry, 2021; Rugova & Prenaj, 2016). On the other hand, due to small size and more straightforward structure, SMEs seek new ways of adopting evolution and advancement in social media within the marketplace (Erlangga, 2021).

In the context of Tanzania, most of the SMEs are experiencing adoption barriers in accepting new technologies such the use of social media (Swallehe, 2021). It can be argued that adopting and integrating social media into SMEs' marketing process

will not only widen new avenues of opportunities but also modify its business operational processes (Hartanto & Soelaiman, 2021). Social media are viewed as essential tools for facilitating and enhancing the degree of customer interaction and that is why social media marketing has become an indispensable tool for customer relationship approach in the business firms (Khamaludin et al., 2021; Erlangga, 2021).

Despite the fact that social media marketing plays a significant role to increase the business performance, SMEs need to adopt technology innovation appropriately (McCannal & Barlow, 2015), but studies on social media adoption among SMEs in Tanzania is still at an infancy stage (Qalati et al., 2021). In Tanzania, SMEs are still experiencing challenges of adopting social media marketing (Swallehe, 2021). However, in the context of the SMEs sector, little is known about factors determining social media usage (Trawnih et al., 2021; Rugova & Prenaj, 2016).

Moreover, previous studies indicate that there is no common agreement among scholars about the determinants of social media marketing adoption among SMEs. Some of the studies found that technological features, organizational characteristics and owners' knowledge have positive and significant relationship with social media marketing adoption in SMEs (Trawnih et al., 2021; Effendi et al., 2020; Ali-Abbasi et al., 2022). Other scholars have revealed that technological context had no significant effect on social media marketing adoption in SMEs (AlSharji et al., 2018; Hartanto & Soelaiman, 2021). Previous studies indicate that there are conflicting ideas among scholars on the determinants of social media marketing adoption among SMEs. Consequently, this study aimed to examine the determinants of social media marketing adoption among Small and Medium Enterprises (SMEs).

2.0 Literature Review

2.1 Technology-Organization-Environment (TOE) Theory

This study was grounded on Technology-Organization-Environment (TOE) theory. This theory was developed by Tornatzky and Fleischer's (1990) to examine organizations across several perspectives (AlSharji et al., 2018). Previous studies such as ones by Trawnih et al. (2021), Hartanto & Soelaiman (2021), and Effendi et al. (2020) used the TOE theory to explain how technological, organizational and environmental factors may influence the adoption of social media in SMEs. This theory is basically used to explains technology adoption in company and describe how the process of adopting technological innovations is affected by technological factors, organizational factors, and environmental factors (Trawnih et al., 2021; AlSharji et al., 2018).

This study used TOE theory to explain social media adoption in SMEs due to various reasons. First, this theory is widely accepted in explaining social media adoption in SMEs. Previous scholars such as Trawnih et al. (2021), Hartanto & Soelaiman (2021), and Effendi et al. (2020) used the TOE theory. Second, previous studies on the TOE model have shown that it has broad applicability and can explain adoption in a number of technological, industrial and national contexts. It is the only framework that fully covers environmental factors (AlSharji et al., 2018). Also, the TOE theory has consistent empirical support in various technological and information system domains, and is a generic theory of technology diffusion (Trawnih et al., 2021; AlSharji et al., 2018). The theory can be used to investigate different types of innovation including social media adoption (AlSharji et al., 2018; Hartanto & Soelaiman, 2021).

2.1.1 Technological Factors

A technological factor is defined as any technology that is either being used by a company or that is available and is recognized to be potentially useful, but is not yet being used (Ali-Abbasi et al., 2022; Trawnih et al., 2021). Another study by Effendi et al. (2020) considers technological factors to focus on internal and external technologies that are beneficial for organizations that discuss the technical knowledge needed to apply social media. Previous studies such as one by Trawnih et al. (2021) and Effendi et al. (2020) indicated that technological factors and adoption of social media marketing are positively related. Conversely, the studies by other scholars like Hartanto & Soelaiman (2021) indicate that there is insignificant relationship between technological factors and social media marketing adoption. Thus, the following hypothesis statement was formulated:

H_1: Technological factors have positive effects on adoption of social media marketing in SMEs.

2.1.2 Organizational Factors

Previous studies such as ones by Malesev & Cherry (2021) and Rugova & Prenaj (2016) have defined organizational factors as all the features of the organisation including firm size, employees' skills, and top management support and cost perception. Moreover, AlSharji et al. (2018) describe organizational factors as the overall features of an organisation including staff and their relationships and networks. The organisational factors referred to as the characteristics and resources of the firm including the firm's size, employees' skills, and top management support (Erlangga, 2021; Rugova & Prenaj, 2016; Kidd et al., 2022). Preceding studies such as ones by Matikiti et al. (2018), Trawnih et al. (2021), and Effendi et al. (2020) indicated that organisational factors and adoption of social media marketing are positively related. Therefore, the following hypothesis statement was formulated:

H_2: Organizational factors have positive effects on adoption of social media marketing in SMEs.

2.1.3 Environmental Factors

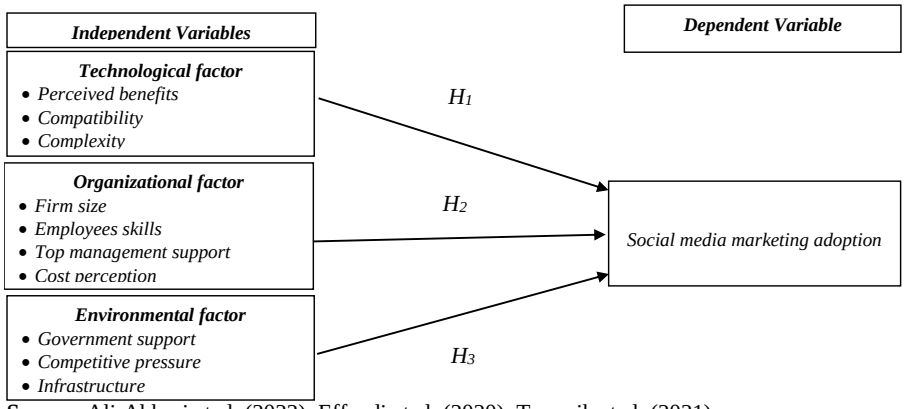
The environment is all those factors outside an organisation, including the conditions in which it operates. It therefore covers industry structure, availability of technology and any regulatory requirements (Hartanto & Soelaiman, 2021; Kidd et al., 2022). Rogers (2002) argues that the business environment is one of the vital factors that can either encourage or hinder the process of technology adoption. In this study the environmental factors are considered as relating to external factors whose support is necessary for the survival and growth of SMEs. Previous studies such as ones by Trawnih et al. (2021) and Effendi et al. (2020) indicated that environmental factors and adoption of social media marketing are positively related. Thus, the following hypothesis statement was formulated:

H_3: Environmental factors have positive effects on adoption of social media marketing in SMEs.

2.2 Conceptual Framework

The conceptual framework of this study is illustrated in Figure 1. It shows that technological, organizational and environmental factors affect social media marketing adoption in SMEs. This is supported by studies such as ones by Ali-Abbasi et al. (2022), Effendi et al. (2020), and Trawnih et al. (2021) who found positive effect of technological, organisational and environmental factors on social media marketing adoption. It also suggests that technological factors as independent variables of the study affect social media marketing adoption in SMEs through perceived benefits, compatibility and complexity. Moreover, the conceptual mode assumes that organizational factors affect social media marketing adoption through firm size, employees' skills, top management support, and customers and cost perception. Furthermore, environmental factors affect social media marketing adoption through government support, competitive pressure and infrastructure.

Figure 1: Conceptual Framework



Source: Ali-Abbasi et al. (2022); Effendi et al. (2020); Trawnih et al. (2021)

3.0 Research Methodology

Descriptive research design was used in this study. This research design allows collection of data from a larger sample at relatively low costs (Hair et al., 2010). Moreover, the study employed quantitative approach because it aimed to establish the relationship between the studied variables. The study was conducted in Ilala Municipality. The area was selected because it has the largest number of SMEs compared to other municipalities in Dar es Salaam. According to Small Industries Development Organization "SIDO" (2020), a large number of SMEs are in Dar es Salaam city, particularly in Ilala Municipality.

The study population involved business owners who undertook day to day activities of Small and Medium Enterprises (SMEs) in Dar es Salaam city. According to SIDO (2020), there are 27,889 registered SMEs in Ilala. Therefore, the study population was 27,889 SMEs owners from Ilala Municipality. According to Adam (2021), sample size estimation is required to be derived using a specific formula. According to Stevens (1996), the sample size that was used for multiple linear regression in this study was determined as follows:

$N = 50 + 8\ m$…….. (i)

Where:

N = Sample size for multiple linear regression and m = Sum of independent variables. The sum of independent variables in this study is 10 variables. Therefore, the sample size for this study is

$N = 50 + 8(10)$…….. (ii)

$N = 130$

This study targeted business owners who undertook day to day activities of Small and Medium Enterprises (SMEs) in Dar es Salaam city. In order to obtain respondents, the study used simple random sampling as proposed by previous studies such as Erlangga (2021); Khamaludin et al. (2022) where the respondents were given equal chances of being chosen randomly to make generalization representing the given population of 27,889 SMEs owners. The current study used simple random sampling to select SMEs owners who were involved in the day to day activities of SMEs in Ilala Municipality. Respondents were picked from lists of SMEs using a table of random numbers. Then the researcher administered a closed-ended questionnaire to gather information from selected respondents, focusing on demographic information and relationship among constructs of the study.

The variables that were examined in this study are technological, organizational and environmental factors (independent variables), and the dependent variable was

social media. Responses to technological, organizational, environmental factors, and social media marketing adoption were measured on a 5-point Likert-like scale on which there were five alternative answers which ranged from 1 = Strongly disagree to 5 = Strongly agree.

Table 1: Measurement of the Variables

Variables	Construct	Measurement	Source
Technological factors	• Perceived benefits • Compatibility • Complexity	5-point Likert scale	Erlangga (2021); Malesev & Cherry (2021)
Organizational factors	• Firm size • Employee skills • Top management support • Cost perception	5-point Likert scale	Khamaludin et al. (2022); Rugova & Prenaj (2016)
Environmental factors	• Government support • Competitive pressure • Infrastructure	5-point Likert scale	Malesev & Cherry (2021); Rugova & Prenaj (2016)
Social media marketing adoption	• Social media presence • Social media customers' interaction • Social media posts	5-point Likert scale	Rugova & Prenaj (2016); Patma et al., (2021).

This study used a structured questionnaire for collection of primary data. The study used this method because it allows quantification of data for quantitative analysis as suggested by Khodaei et al. (2022). Also, the use of questionnaire provided a chance for the researcher to give clarifications to participants on issues that needed explanation, and this motivated the respondents to answer all questions.

The analysis of data was aided by Statistical Package for Social Scientists (SPSS). Descriptive and inferential analyses were conducted as proposed by Patma et al., (2021). For inferential analysis, multiple regression analysis was used as recommended by Malesev & Cherry (2021) to assess the strength of the relationships between social media marketing adoption and its predictor variables. Multiple linear regression was appropriate as all explanatory variables involved a number of predictors. Thus, the following multiple regression equation was used.

$$Asmm = f(Tf, Of, Ef) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (i)$$

The equation (i) above can be presented in the following empirical equation

$$Asmm = \beta_0 + \beta_1 Tf + \beta_2 Of + \beta_3 Ef + \varepsilon_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (ii)$$

Where:

Asmm = Adoption of social media marketing, β_0 = Regression coefficient, β_1, β_2, β_3 = Constant regression term, Tf = Technological factor, Of = Organizational factor, Ef =Environmental factor and ε_i = Error term

4.0 Results

4.1 Respondents' Profiles

This study explored the profile of the respondents for the purpose of gaining insight of the nature and characteristics of the respondents based on the age of the respondents, gender and education level. The results indicate that a large number of SMEs owners 58 (47.5%) were aged between 21 to 40 years, followed by those with 41 to 60 years (32.0%), and 11.5% of the SMEs owners were below 20 years. Moreover, the results in Table 2 show that few of the SMEs owners (9.0%) were aged 61 years and above. The findings imply that more young entrepreneurs are involved in SMEs operations than older people. Also, they are more involved in social media activities. As it was found by Ali-Abbasi et al. (2022), young SMEs owners are more involved in social media marketing activities compared to older people.

On the other hand, the results in Table 2 provide the distribution of the studied SMEs owners in terms of gender. The findings reveal that the majority of the SMEs owners for this study (62.3%) were males and a small number of the SMEs owners were females (37.7%). The results imply that males are more involved in SMEs than females. It may also imply that males are more risk takers compared to females. Similar findings were reported in the previous studies such as ones by Effendi et al. (2020) and Trawnih et al. (2021) who found that males are more involved in the SMEs operations compared to females.

Furthermore, the findings show that a large number of the SMEs owners (40.2%) had secondary/high school education, and 27.9% of the SMEs owners had attained certificate or diploma education. The findings in Table 2 show that 16.4% of the SMEs owners had Bachelor's Degrees or Advanced Diploma qualification, and those with primary school level education were 12.3% of the SMEs owners. Moreover, the least number (3.3%) was recorded from the Master's Degree and PhD group. The findings imply that SMEs operations are done by educated owners with secondary or high school education, certificate or diploma, Bachelor's Degrees or Advanced Diploma qualifications.

Table 2: Demographic Characteristics of the Respondents

Age of the Respondents	Frequency	Per cent
Below 20 years	14	11.5
21 – 40 years	58	47.5
41 – 60 years	39	32.0
61 and above	11	9.0
Total	122	100.0
Gender of the Respondents		
Male	76	62.3
Female	46	37.7
Total	122	100.0
Level of Education		
Primary school	15	12.3
Secondary/High school	49	40.2
Certificate/Diploma	34	27.9
Bachelor degree/Advanced Diploma	20	16.4
Master's degree and PhD	4	3.3
Total	122	100.0

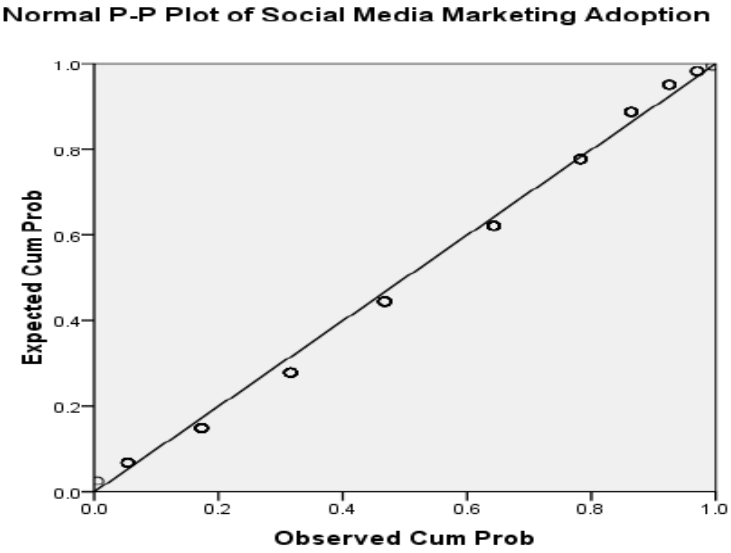
4.1 Results of Multiple Regression Assumptions

This study used multiple regression to test the relationship between variables. Thus, it was necessary to comply with the assumptions of the linear regression model. To ensure the study complied with the assumptions of linear regression model, the principal assumptions of linear regression model were tested. According to Osborne and Waters (2002) and Zhang and Belsky (2022), there are four principal assumptions of linear regression model which are: linearity, normality, autocorrelation and multi-collinearity.

4.1.1 Linearity Test

One of the assumptions of multiple linear regression is linearity (Xu and Gui, 2021). Therefore, the study tested for a linear relationship between the independent variables (technological, organizational and environmental factors) and the dependent variable (social media marketing adoption). This study tested for linearity assumption by inspection of scatter plots. The results from inspection of scatter plots indicated no violation of the linearity assumption, as data points on the scatter plots closely resembled a straight line, as indicated in Figure 2. According to Xu and Gui (2021), relationship is linear if data points on the scatter plot are close to the straight line.

Figure 2: Scatter Plot



According to Reading (2020), scatter diagram is an extremely simple statistical tool used to show a relationship between two variables. Thus, it must be accompanied by other methods to reach conclusion on linearity of data. Therefore, this study used another method (correlation analysis) to test for linearity of data as suggested in previous studies such as ones by Mmasi and Mwaifyusi (2021) and Erlangga (2021).

The results from correlation analysis in Table 3 indicate that the correlation between social media marketing adoption and technological factor was $r = 0.826$ with $p < 0.000$); organizational factor had an $r = 0.748$ with $p < 0.000$), and environmental factor had an $r = 0.836$ with $p < 0.000$). The existence of strong correction between variables implies that the linearity assumption was not violated in this study.

Table 3: Correlations Coefficients

		Technological Factor	Organizational Factor	Environmental Factor	Social Media Marketing Adoption
Technological Factor	Pearson Correlation	1	.183	.228	.826
	Sig. (2-tailed)		.000	.000	.000
	N	122	122	122	122

Organizational Factor	Pearson Correlation	.183	1	.146	.748
	Sig. (2-tailed)	.000		.000	.000
	N	122	122	122	122
Environmental Factor	Pearson Correlation	.228	.146	1	.836
	Sig. (2-tailed)	.000	.000		.000
	N	122	122	122	122
Social Media Marketing Adoption	Pearson Correlation	.826	.748	.836	1
	Sig. (2-tailed)	.000	.000	.000	
	N	122	122	122	122

4.1.2 Normality Test

According to Schmidt and Finan (2018), normality assumption avows that there is a normal distribution of sample for independent variables. In this study, test for normality of data was performed by using skewness and kurtosis statistics as proposed by previous studies such as ones by Patma et al. (2021) and Rugova and Prenaj (2016). Schmidt and Finan (2018) recommend the acceptable threshold value for both skewness and kurtosis to be ±2, but other scholars such as Ali-Abbasi et al. (2022) and Zhang and Belsky (2022) argue that the acceptance of threshold values for both skewness and kurtosis are up to ±7. This study found that the values for both skewness and kurtosis were within the threshold value of ±7.

The results in Table 4 indicate that skewness statistics were within the range from 0.109 to 0.39. On the other hand, the results show that Kurtosis statistics ranged from –0.447 to 0.252. The results imply that normality assumption was met in this study since the values for both skewness and kurtosis fell within the threshold value of ±7.

Table 4: Skewness and Kurtosis Results

	N	**Skewness**		**Kurtosis**	
	Statistic	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Technological Factor	122	.325	.219	-.185	.435
Organizational Factor	122	.109	.219	-.396	.435
Environmental Factor	122	.621	.219	.252	.435
Social Media Marketing Adoption	122	.390	.219	-.447	.435
Valid N (listwise)	122				

4.1.3 Autocorrelation Test

Autocorrelation problem occurs when error terms are not independent of each other (Xu and Gui, 2021). Multiple regression model requires a data set to be free from autocorrelation problem (Schmidt and Finan, 2018). In this study, test for autocorrelation assumption was carried out by using Durbin-Watson (DW) statistic as it is recommended in the previous studies such as ones by Trawnih et al. (2021) and Mmasi and Mwaifyusi (2021). According to Sunarsih et al. (2020), the study is free from autocorrelation in case the DW value is approximately or equal to 2. The results in Table 5 show that the Durbin-Watson (DW) value was 1.961. Since, DW value was approximately 2, this implies that there was no statistically significant autocorrelation problem.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.848[a]	.719	.603	2.22612	1.961

a. Predictors: (Constant), Environmental Factor, Technological Factor, Organizational Factor

b. Dependent Variable: Social Media Marketing Adoption

4.1.4 Multi-Collinearity Test

Multiple regression model requires a data set to be free from multi-collinearity. Multi-collinearity problem is the situation in which independent variables are highly correlated with each other in a multiple regression equation. The current study employed Tolerance values and Variance Inflation Factors (VIFs) to test the multi-collinearity assumption as recommended by Trawnih et al. (2021) and Mazengo and Mwaifyusi (2021). According to Hair et al. (2010), tolerance values less than 0.2 and VIF values greater than 5 show the existence of multi-collinearity problem. The findings in Table 6 show that both Tolerance and VIF values did not exceed the threshold values. The results imply that this study was free from multi-collinearity problem.

Table 6: Multi-Collinearity Statistics

	Collinearity Statistics	
Model	Tolerance	VIF
Technological Factor	.992	1.008
Organizational Factor	.991	1.009
Environmental Factor	.997	1.003

a. Dependent Variable: Social Media Marketing Adoption

4.2 Results from Validity and Reliability Test

4.2.1 Reliability Test

Internal consistency was tested by using Cronbach's Alpha coefficient as suggested by previous studies such as Malesev & Cherry (2021); Patma et al. (2021). The cut-off point of 0.7 and above was considered to be good as recommended by Hair et al. (2016). The results in Table 7 show that the coefficient of Cronbach's Alpha for technological factors, organizational factors, environmental factors and social media marketing adoption were greater than the recommended value of 0.7. Cronbach's Alpha values ranged from 0.756 to 0.869. The results confirm that reliability of the instrument was not violated in this study.

Table 7: Cronbach's Alpha Coefficient

	Cronbach's Alpha
Technological Factor	0.869
Organizational Factor	0.756
Environmental Factor	0.816
Social Media Marketing Adoption	0.822

4.2 Validity Test

4.2.1 Content Validity

Content validity was attained by conducting a comprehensive literature review in relation to technological factors, organizational factors, environmental factors and adoption of social media marketing in SMEs. Additionally, all variables for this study originated from the theory as suggested by Erlangga (2021). Therefore, content validity was observed in this study.

4.2.2 Convergent Validity

This is a situation in which the scale items of a certain construct share high proportions of variance (Hair et al., 2010). In this study, convergent validity was examined through factor loadings as recommended by Malesev & Cherry (2021). According to Hair et al. (2010), the threshold value of factor loadings should be 0.5 or above.

This study employed Exploratory Factor Analysis (EFA) to measure convergent validity. A study by Malesev & Cherry (2021) proposed that EFA can be used to measure convergent validity by examining factor loadings. The results in Table 9 show that factor loadings for technological factors, organizational factors, environmental factors and adoption of social media marketing were above 0.5. The findings imply that convergent validity was not violated. According to Hair et al. (2010), convergent validity is attained when the value of factor loadings is 0.5 or

above. On the other hand, the findings in Table 3 show that correlation between social media marketing adoption and technological factors was $r = 0.826$ with $p < 0.000$); between social media marketing adoption and organizational factors $r = 0.748$ with $p < 0.000$), and between social media marketing adoption and environmental factors $r = 0.836$ with $p < 0.000$). The existence of strong correlation between the variables implies that linearity assumption was not violated in this study. The presence of strong correlation implies that convergent validity was not violated.

4.2.3 Discriminant Validity

Discriminant validity shows how the dimensions differ from other latent dimensions (Hair et al., 2010). This study tested for discriminant validity by comparing the Average Variance Extracted (AVE) of each dimension with the square of the correlations between the dimensions. According to Hair et al. (2010), to test for discriminant validity, the AVE value for technological factors, organizational factors, environmental factors and adoption of social media marketing were compared with the square of the correlations. The findings in Table 9 indicate that the AVE values for technological factors, organizational factors, environmental factors and adoption of social media marketing were greater than the squared correlation coefficients. The results suggest that discriminant validity was not violated in this study.

According to Erlangga (2021), it is necessary to conduct Kaiser-Meyer-Olkin (KMO) test before EFA. Malesev & Cherry (2021) suggested that Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of sphericity must be tested for the purpose of identifying the fitness of the data for EFA. The findings in Table 8 show that the value of KMO was 0.907, while, Bartlett's test for sphericity was significant ($p \leq 0.000$). The results imply that the data were fit for EFA.

Table 8: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.907
Bartlett's Test of Sphericity	Approx. Chi-Square	691.291
	Df	10
	Sig.	.000

In this study, the results from KMO and Bartlett's Test indicate that the data were fit for EFA; the KMO value was 0.907 while the Bartlett's Test of Sphericity was significant at $p < 0.05$.

Table 9: EFA Output

Variables	Loading	AVE
Technological Factor		.818
Perceived Benefits	.729	
Compatibility	.694	
Complexity	.545	
Organizational Factor		.891
Firm Size	.798	
Employees Skills	.653	
Top Management Support	.933	
Cost Perception	.696	
Environmental Factor		.895
Government Support	.816	
Competitive Pressure	.784	
ICT Infrastructure	.653	
Social Media Marketing Adoption		.854
Social Media Presence	.848	
Social Media Customers Interaction	.743	
Social Media Posts	.783	

Extraction Method: Principal Component Analysis.

4.2.4 Face Validity

Face validity refers to validity at face value. This shows the degree to which the data collection instrument, specifically the questionnaire, appears to measure what it was intended to measure (Khodaei et al., 2022). This study ensured face validity by looking at the questionnaire as suggested by Sacomori et al. (2022).

4.3 Descriptive Statistics

Table 10 presents descriptive analysis results for technological factors, organisational factors, environmental factors and social media marketing adoption in terms of number of observations, minimum values, maximum values, means and standard deviations.

Table 10: Descriptive Statistics

	n	Minimum	Maximum	Mean	Std. Deviation
Technological factor	122	4.00	13.00	8.2951	1.96956
Organizational factor	122	4.00	16.00	10.0164	2.65661
Environmental factor	122	3.00	13.00	6.3770	1.91699
Social media marketing adoption	122	3.00	13.00	7.3033	2.22268
Valid N (listwise)	122				

The findings in Table 10 show that all variables had a total of 122 observations. Also, the findings show that the minimum value for technological factors was 4.0; the maximum value was 13.00; the mean was 8.2951; and the standard deviation was 1.96956. Also, the findings indicate that organizational factors had a minimum value of 4, a maximum value of 16.00, a mean value of 10.0164 and a standard deviation 2.65661. Moreover, environmental factors had a minimum value of 3, a maximum value of 13.00, a mean value of 6.3770 and a standard deviation of 1.91699. Furthermore, the maximum and minimum values for social media marketing adoption were 3.0 and 13.00 respectively, with a mean value of 7.3033 and a standard deviation value of 2.22268.

4.4 Findings from Multiple Regression

The results in Table 11 indicate that the coefficient of determination (R^2) was equal to 0.719. The results imply that 71.9% of adoption of social media marketing in SMEs was explained by three independent variables, namely technological factors, organizational factors and environmental factors.

Table 11: Results from Multiple Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6.900	1.300		5.306	.000
	Technological Factor	.520	.303	.218	4.198	.001
	Organizational Factor	.645	.477	.353	4.582	.000
	Environmental Factor	.460	.306	.238	3.511	.002

a. Dependent Variable: Social Media Marketing Adoption

$R^2 = .719$

4.5 Discussion of the Findings

4.5.1 Technological Factors and Adoption of Social Media in SMEs

The study examined whether technological factors could have positive effect on adoption of social media marketing in SMEs as it is stated in the first hypothesis (H_1). Empirical findings in Table 11 strongly supported the first hypothesis, because of positive and significant contribution of technological factors to adoption of social media marketing in SMEs (B-value = 0.520, t = 4.198, p = 0.001). This implies that a unit increase in technological factor would lead to 0.520 increases in the scores of adoption of social media marketing in SMEs. This means that understanding and incorporating technological factors in business operations of SMEs lead to easy adoption of social media marketing adoption for business growth and better

performance. The results support the TOE theory which assumes that technological factors have positive effects on adoption of social media marketing.

The results are consistent with results of previous works by Trawnih et al. (2021) and Malesev and Cherry (2021) who found technological factors to be determinants of social media adoption due to existence of positive and significant relationship between such factors and social media adoption. Similar results were obtained in Indonesia by Effendi et al. (2020) who concluded that technological factors had positive and significance relationship with social media adoption in SMEs. This is confirmed by Erlangga (2021) who also revealed that there is positive and significant relationship between technological factors and social media adoption. SMEs decision makers must be shown that technological factors provide considerable influence on the use of social media by SMEs.

A recent work by Ali-Abbasi et al. (2022) asserts that technological factors significantly influenced the adoption of social media marketing in SMEs in Malaysia. In order to increase social media uses among SMEs, technological factors such as perceived benefits, and compatibility of the social media must be improved. The findings, however, contradict those findings by Hartanto & Soelaiman (2021) and Chatterjee et al. (2021) who found that technological factors are not significantly related with social media adoption. However, the study was conducted in large organisations where technological and management factors are quite different from those of Tanzanian SMEs.

4.5.2 Organizational Factors and Adoption of Social Media in SMEs

This study also analysed effects of organizational factors on adoption of social media marketing in SMEs. It was found that organisational factors had significant and positive effects on adoption of social media marketing in SMEs. This implies that improvement in organisational factors play significant contribution to increasing adoption of social media marketing in SMEs.

The results in Table 11 indicate that organisational factors and adoption of social media marketing are positively related (B-value = 0.645, t = 4.582, p = 0.000). This means that a unit increases in organizational factors would lead to 0.645 times increase in the scores of adoption of social media marketing in SMEs. The findings suggest that there is positive and significant relationship between organizational factors and adoption of social media marketing in SMEs. Hence, H_2 of the study was supported that organizational factors which had positive effect on adoption of social media marketing in SMEs. The findings are similar to findings of previous works such as ones by Khamaludin et al. (2022) and Rugova & Prenaj (2016) who

found organisational factors and social media adoption being positively and significantly related. Organisational factors are among the key factors determining the adoption of social media in SMEs due to existence of positive and significant association between organisational factor and social media adoption. This aligns with the TOE theory which explains about technology adoption based on organizational features.

On the other hand, a previous research by Effendi et al. (2020) found that organizational factors and adoption of social media adoption in SMEs are positively and significantly related. The same results were found in the same year by Eze et al. (2020) in Nigeria, who revealed that organisational factors have positive and significant relationship with social media marketing technology adoption in SMEs. This was confirmed by Wulandari (2021) who also revealed that there is positive and significant relationship between organisational factors and social media adoption in SMEs. However, the results are contrary to results of a study by Ahmad et al. (2018) in UAE who found that organisational factors have no significant effect on social media adoption in SMEs. However, the study that was conducted in UAE might have influenced by the country having different socio-economic, political and technological environments. Thus, SMEs decision makers must be shown that organisational factors provide considerable influence on the use of social media by SMEs.

4.5.3 Environmental Factors and Adoption of Social Media in SMEs

The current study aimed at examining the effect of environmental factors on the adoption of social media marketing in SMEs. The results show that environmental factors positively affected the adoption of social media marketing in SMEs, and hence H_3, which stated that environmental factors have positive effects on adoption of social media marketing in SMES, was accepted in this study.

The findings in Table 11 indicate that there was positive and significant relationship between environmental factors and adoption of social media marketing in SMEs (B-value = 0.460, t = 3.511, p = 0.002). This means that that a unit increase in environmental factors would lead to 0.460 times increase in the scores of adoption of social media marketing in SMEs. This implies that, as environmental factors increase, the adoption of social media marketing in SMEs also increases. The results support the TOE theory which assumes that environmental factors have positive effects on adoption of social media marketing.

These findings are in agreement with those found by other scholars such as Rugova and Prenaj (2016) and Patma et al. (2021) who found positive and significant

relationships between environmental factors and adoption of social media marketing in SMEs. Therefore, SMEs decision makers must observe environmental factors key factors determining the adoption of social media marketing in SMEs. However, the findings are contrary to ones from a study by Ahmad et al. (2018) in UAE, who revealed that environmental factors have no significant effect on social media adoption in SMEs. However, the study was conducted in UAE, a country with different socio-economic, political and technological environments.

5.0 Conclusion and Recommendations

5.1 Conclusion

Findings from this study revealed that technological factors; specifically perceived benefits, compatibility and complexity; have significant and positive effects on adoption of social media marketing in SMEs. With respect to these findings, it is concluded that technological factors significantly and positively affect adoption of social media marketing in SMEs. It can be said that technological factors are among the determinants of social media marketing adoption in SMEs.

One of the specific objectives in this study was to analyse organizational factors affecting the adoption of social media marketing in SMEs. The findings indicate that organisational factors have a significant and positive relationship with the adoption of social media marketing in SMEs. Thus, the study concludes from these findings that organizational factors (i.e. firm size, employee skills and cost perception) lead to increase in adoption of social media marketing in SMEs. In other words, organizational factors are among the determinants of adoption of social media marketing in SMEs.

Another specific objective of the study aimed to investigate environmental factors affecting adoption of social media marketing in SMEs. The results showed that environmental factors had significant and positive influence on adoption of social media marketing in SMEs. This means that, as environmental factors increase, the adoption of social media marketing in SMEs also increases. Hence, the study concludes that environmental factors such as government support, competitive pressure, and infrastructure are determinants of social media adoption in SMEs. This means that environmental factors predict the adoption of social media marketing in SMEs, due to presence of positive and significant relationship between environmental factors and the adoption of social media marketing in SMEs.

5.2 Recommendations

It is recommended that, for facilitating the adoption of social media marketing, the management of SMEs should create better environment for their businesses to use

social media marketing. It is also recommended that the management of SMEs should invest more in enhancing technological environment by ensuring that SMEs are able to adopt social media platforms for marketing activities. Moreover, the management of SMEs should make sure that technology is accommodated into marketing strategy of the SMEs; this will facilitate smooth adoption of social media marketing.

It is also recommended that the government should develop a comprehensive and SMEs protection policy in order to foster the growth of the SMEs in Tanzania. This will increase the adoption of social media marketing. It is also recommended that the government, through Small Industries Development Organization (SIDO), should ensure that SMEs owners are trained on various issues including the benefits of using social media marketing. Also, provision of training to SMEs employees is one of the strategies for increasing the adoption of social media marketing.

The study recommends that the government should support the adoption of social media marketing in SMEs by improving ICT infrastructure; this will play significant contribution to increase the use of social media. It is also recommended that, while providing a well-defined and comprehensive SMEs protection environment, efforts should include improvement of the legal and regulatory issues governing the use of social media in Tanzania. This will increase the use of social media among SMEs.

5.3 Areas for Further Studies

This study recommends various areas where impending studies can be conducted. The current study examined the effect of technological, organizational and environmental factors on adoption of social media marketing in the SMEs industry. Other scholars may research on the existing relationship between these constructs on specific SMEs sector like insurance, transport, health and fashion business. Also, future studies may classify SMEs according to their products or services offered. On the other hand, this study was limited to Dar es Salaam region – Ilala district, but other studies may extend the study to include other districts within the same or other regions in Tanzania in order to gather more information on the effect of technological, organizational and environmental factors on adoption of social media marketing. Future research may also consider combining the TOE theory with other theories such as the Technology Acceptance Model (TAM) in order to have a comprehensive model to explain the determinants of social media adoption in SMEs. Furthermore, the current study was a cross-sectional one in the sense that data were collected at a single point of time. Therefore, future studies should consider conducting longitudinal studies in examining the determinants of adoption

of social media marketing in SMEs. Additionally, the same study may be replicated to other countries in the SMEs sector and compare the results. This is because perceptions of the SMEs owners vary according to cultural norms.

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