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Mobile Money Payment Adoption in Tourism: Incidence from SMEs from Zanzibar, Tanzania

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Abstract:
This paper focused on adoption of mobile money payment among SMEs in Tourism Sector. Survey design was used to collect quantitative data for testing hypothesis in a total sample size of 158 respondents in Unguja. Managerial stratified sampling technique was used to ensure representation of the sample among SMEs in tourism sector and thereafter simple random sampling was used to draw a sample from each stratum. Cronbach's alpha(p) of greater than 0.6 was found and confirmed the acceptable range of internal consistence of each variable.
Findings using multiple regression analysis revealed that perceived usefulness and perceived easiness of use have a significant influence on SMEs adoption of mobile money payments in Zanzibar. This study concluded that the benefit offered by mobile money payments such as compatibility and ease of using mobile payment have a significant influence on SMEs adoption of mobile money payment. This study recommended that for SMEs to adopt MMS, vendors have to develop the mobile money payments services which fit well to SMEs daily operations. Additionally, the government should enforce the newly developed policy that could help to speed up the adoption by increasing mobile infrastructural, technological knowledge and reducing exercise tax for mobile money devices.

Keyword: Mobile payment, mobile money payment, small and medium tourist enterprise

1. Background of the study

In this era of globalization, the demands and globalization lead to an intense competition in information technology especially for Small and Medium Enterprises (SMEs) in tourism sector. To help improve the SMEs operations in tourism, Tanzanian Government has strived to support the development of innovativeness in technology deployment. Mobilepayment adoption becomes an important factor for firms to compete within the tourism industry. As argued by Ngaruiya, *et al.* (2014) that mobile payments are increasingly being adopted by organizations as a new way of doing business in the 21st century of high competition. In related perspective, Mbogo (2010) advocate that mobile payment services by the micro businesses tend to enhance their success and growth. Ngaruiya, *et al.* (2014) indicated that the inception of mobile phone financial transaction has brought benefits to SMEs including; money transfer to be available at a low cost compared to the traditional banking system where some transactions would be done within the premises of the bank. SMEs face unique challenges due to the nature of their operations which includes their need for payment and transactional services are not always served by banks. Hence m-payment solutions for SMEs are a hot topic again after a chequered history of successes since the turn of the millennium.

Despite these benefits and government effort, the actual adoption of mobile payment in SMEs is limited (Ajmal and Yasin, 2012). This was also observed by Muciimi and Ngumo (2014) who concluded that mobile payments as a mode of

settling day to day business transactions has not received sufficient attention. On the other hand, Sokobe (2015) has evidence that, in Kenya there has been a rapidly increasing adoption of electronic payment by large enterprises but not by small and medium enterprises. The slow adoption of mobile payment by SMEs in tourism might hinder their business financial operations. To the best of researcher's knowledge, limited studies have been done to investigate factors that could influence mobile payment adoption. This implies that, the design and implementation of mobile payment has been done with little understanding of what motivate users of mobile payments users. This study fills the gap by analyzing factors influencing mobile payment among SMEs in tourism sector in Tanzania.

2. Literature Review

2.1. Theoretical Literature Review

The Technology Acceptance Model (TAM) is a specific model to explain the acceptance and use of new information technologies in organizations. According to Davis, users' motivation of actual usage is subject tothe ambience of perceived ease of use, perceived usefulness and attitude towards using a systemin addition to users' behavioral intention (Davis, et al, 1989). It is based on the fact that the adoption is based on the influence of the perceived ease and the perceived usefulness of the user which tend to influence behavior intention to adopt a particular technology. As in this study SMEs' behavior intention to actual adopt mobile payment is determined by perceive ease and perceive usefulness of mobile payment. The applicability of using TAM in studying adoption of mobile technology is well evidenced in previous studies (Almasri ,2014; Krishanan, et al., 2017). Notably example, Al-Fahim (2012) found and concluded that perceived usefulness and perceive ease of use have significant influence to SMEs adoption of mobile banking services. In this study, TAM was used to inform the researcher on the influence of perceived usefulness and perceived ease to use on SMEs adoption of mobile money payment services.

2.2. Empirical Literature Review

Aboelmaged and Gebba (2013) in their study of mobile banking adoption, the regression results indicated significant impact of perceived usefulness on attitude toward mobile banking while the effect of perceived easiness of use on attitude toward mobile banking was not supported. On the other hand, Tobbin (2010) found that, the influence of Perceived Ease of Use and Perceived Usefulness on mobile payment adoption to be significant. Similarly, Raida and Néji (2013) tested and found that perceived usefulness and perceived ease determine the attitude of the use, and that attitude determines the intent to use of e-banking by means of the multiple regressions. Moreover, Chitungo and Munongo (2013) indicated and concluded that, perceived usefulness, and perceived ease of use have a significant effect on user's attitude thus influence the intention toward mobile banking. In related perspective, Lule, *et al.* (2016) analysis revealed that Perceived Ease of Use, Perceived Usefulness, Perceived Self Efficacy and Perceived Credibility significantly influenced customers' attitude towards usage of M-banking. Given this empirical evidence, this study posits two hypotheses as follows:

- *H1: Perceived usefulness have significant influence on SMEs in Tourism adoption of mobile payment*
- *H2: Perceived ease of use has significant influence on SMEs in Tourism adoption of mobile payment*
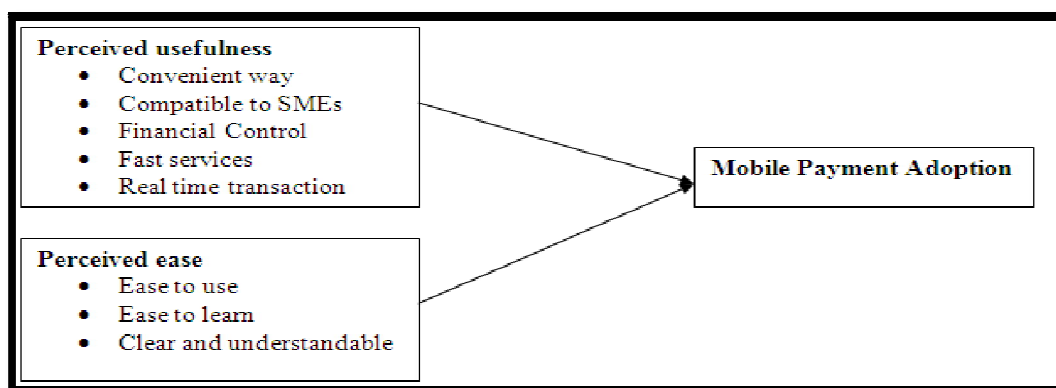
2.3. Conceptual Framework

Figure 1
Source: Constructed By Authors by Modifying Tam (2017)

3. Research Methodology

This research applied quantitative approach. Quantitative approach could be viewed as a research philosophy assuming the phenomena being studied have a stable reality measurable from the outside by an objective observer and have a

power of testing the existence of relationship. Quantitative approach was used to test relationship on hypothesis developed to determine the influence of usefulness and ease of use on mobile payment adoption. The study was conducted in Zanzibar to a targeted population of owners and employers of SMEs in tourism sector. Managerial stratified sampling technique was used to ensure representation of the sample among SMEs in tourism sector and thereafter simple random sampling was used to draw from each stratum from a sample size of 158 respondents. Questionnaire was used to collect primary data to understand the role played by MFIs to SMEs. Documentary method was also being used to support and give evidence of the data collected from a field survey. Thus, the use of multiple data sources served the triangulation cause (Greener, 2008), and enhance the quality of the collected data.

4. Findings
Findings are organized into three categories: Firm characteristics, Reliability and Major finding as described below.

4.1. Firm Characteristics

Firm characteristics	Scale Items	frequency	percent
	Owners	45	28.1
Management Level	Managers	38	22.2
	Employees	75	49.6
	Male	59	37.8
Ownership Gender	Female	41	25.2
	Both Male and Female	58	37
	1-4Employees	66	42.2
Firm Size	5-49 Employees	57	37
	50-99 Employees	36	20.7
	Less than 5 Years Old	55	34.8
Business Age	5-10 Years old	67	43.7
	Above 10 Years	36	21.5
Total		158	100

Table 1: Firm Characteristics

Table 4.1 above shows the general proportional of representation of firm characteristics in this study in terms Management level, Ownership Gender, Firm Size and Business Age. The proportional of the percent indicate that each unique firm characteristics were well represented in this study which increased the validity of the findings in this study

4.2. Reliability

Variable	Items	Cronbach's Alpha P-Value
Perceived usefulness	Convenient way Compatible to SMEs Financial Control Fast Services Real time transactions	0.654
Perceived ease	Ease to use Ease to learn Clear and understandable	0.732

Table 2: Reliability Test

To assess the reliability of the factors, in table 4.2 the researchers computed Cronbach's alpha(p) of greater than 0.6, which is coefficient of reliability and it suggests that the measures are acceptable.

4.3. Major Findings

Major findings of this study are based on two hypotheses formulated a described below:
- H1: Perceived usefulness have significant influence on SMEs in Tourism adoption of mobile payment

To test this hypothesis, multiple regression analysis was used as described in the three output tables below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775a	.601	.595	.596

Table 3: Model Summary
A.   Predictors: (Constant), Convenient Way, Compatible To Smes, Ensure Greater Financial Control, Offers Fast Services, Real Time Transactions

Table 4.3 above showed that dependent variable "Mobile Payment" is explained well by five predictors namely "convenient way, compatible to SMEs, ensure greater financial control, offers fast services and real time transactions" as demonstrated by R^2 of 60%. This means that the independent variables "perceived usefulness" is used to explain 60% of the variation in the dependent variable "mobile payment" in this study, which is higher.
Further analysis was done to determine the significant influence of perceived usefulness on mobile payment as the results are demonstrated in table 4.4 below

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	201.652	5	40.330	113.429	.000b
	Residual	134.045	377	.356		
	Total	335.697	382			

Table 4: Anovaa
a. Dependent Variable: Mobile Payment Adoption
b. Predictors: (Constant), convenient way, compatible to SMEs, ensure greater financial control, offers fast services, real time transactions

Table 4.4 ANOVAa above showed that overall, the model applied in this study can statistically significantly predict the outcome variable of relationship between dependent variable" Mobile Payment" and predictors "convenient way, compatible to SMEs, ensure greater financial control, offers fast services, real time transactions" to a large extent as demonstrated by significant p-value less than 0.05 in a ANOVA table above. This indicates that the overall hypothesis which state that perceived usefulness has a significant influence on SMEs adoption of mobile payments in Tanzania is accepted. To assess the significant influence of the attributes of perceived usefulness. Table 4.5 below depict the results of each attributes

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.272	.211		1.290	.198
	Real time transactions	.649	.042	.612	15.524	.000
	Compatible to SMEs	.110	.044	.097	2.496	.013
	Offers fast services	.168	.034	.187	4.962	.000
	Ensure greater financial control	.082	.029	.096	2.857	.005
	Convenient way	-.002	.030	-.002	-.061	.951

Table 5: Coefficientsa
a. Dependent Variable: Mobile Payment Adoption

The results provided in table 4.5 Coefficientsa above showed that all indicator variables "compatible to SMEs, ensure greater financial control, offers fast services and real time transactions" of perceived usefulness have significant influence on

SMEs to adopt mobile payment in Tanzania except convenient way. These findings in table 4.5 helps to explain the explanatory power of perceived usefulness contributed to mobile payment resources adoption among SMEs in tourism sector.

- H2: Perceived ease have significant influence on SMEs in Tourism adoption of mobile payment

To test this hypothesis, multiple regression analysis was used as described in the three-output table below.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416a	.173	.167	.856

Table 6: Model Summary
A. Predictors: (Constant), Clear and Understandable, Easy To Use, Easy To Learn

Table 4.6 above showed that dependent variable "Mobile Payment" is explained by three predictors namely "Clear and understandable, Easy to use, Easy to learn" as demonstrated by R Square of 17%. This means that the independent variables "perceived ease" is used to explain 17% of the variation in the dependent variable "mobile payment" in this study, which is low.

Further analysis was done to determine the significant influence of organizational context on mobile payment as the results are demonstrated in table 4.7 below

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.128	3	19.376	26.456	.000b
	Residual	277.569	379	.732		
	Total	335.697	382			

Table 7: Anovaa
A. Dependent Variable: Mobile Payment Adoption
B. Predictors: (Constant), Clear And Understandable, Easy To Use, Easy To Learn

Table 4.7ANOVAa above showed that overall, the model applied in this study can statistically significant predict the outcome variable of relationship between dependent variable" Mobile Payment" and predictors "clear and understandable, easy to use, easy to learn "to a large extent as demonstrated by significant p-value less than 0.05 in a ANOVA table above. This indicate that the overall hypothesis which state that perceived ease has a significant influence on SMEs adoption of mobile payments in Tanzania is accepted. To assess the significant influence of the attributes of perceived ease, table 4.8 below depict the results of each attributes

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.140	.271		7.888	.000
	Easy to use	.312	.062	.258	5.012	.000
	Easy to learn	.123	.052	.126	2.347	.019
	Clear and understandable	.173	.041	.205	4.209	.000

Table 8: Coefficientsa
A. Dependent Variable: Mobile Payment Adoption

The results provided in table 4.8 Coefficientsa above showed that all indicator variables "clear and understandable, ease to use and ease to learn" of perceived ease have significant influence on SMEs to adopt mobile payment in Tanzania to a large extent as demonstrated by p-value less than 0.05 in a coefficients table above. This findings in table 4.8 helps to explain the explanatory power of perceived ease is contributed by significant influence of "clear and understandable, ease to use and easy to learn".

5. Discussion of the Findings

- **H1:** Perceived usefulness have significant influence on SMEs in Tourism adoption of mobile payment

Findings from the current study have indicated a significant influence of perceived usefulness by yielding a regression p-value less than 0.05 in ANOVA table. These findings collaborate with the work by Maditinos, et al. (2013) and Ramayah, et al. (2003). The possible explanation of why perceived usefulness was found to be significant in the current study is explained by explanatory of indicators variables "compatible to SMEs, ensure greater financial control, offers fast services, real time transactions".

- **H2:** Perceived ease have significant influence on SMEs in Tourism adoption of mobile payment

Findings from the current study have indicated a significant influence of perceived ease by yielding a regression p-value less than 0.05 in ANOVA table. These findings collaborate with the work by Maditinos, et al. (2013) and Ramayah, et al. (2003). The possible explanation of why perceived usefulness was found to be significant in the current study is explained by explanatory of indicators variables "Clear and understandable, Easy to use and Easy to learn".

6. Conclusion and Recommendation

The findings concluded that perceived usefulness and perceived ease of use play a greater role in influencing adoption of mobile payment in Tanzania tourism sector. Further the study concluded that perceived usefulness through "compatible to SMEs, ensure greater financial control, offers fast services, real time transactions" have higher significant influence to SMEs adoption of mobile payment while perceived ease through "clear and understandable, easy to use and easy to learn" have a strong significant influence on SMEs adoption of mobile payment. Base on these findings, this study has made the following recommendations:

- While perceive usefulness was found to be significant, the study recommends a call for policies that create conducive operating environment, encouraging small firm use of mobile money payment services and embrace on an entrepreneurial culture that leads to greater understanding of opportunities offered by mobile money payment services.
- While compatibility was found to be significant, the current study recommend that the financial institutions should select the appropriate mobile technology topology which fit well with SMEs operation in tourism sector.
- While TAM was found to predict the adoption at R square of 60% greater than half in the current study, it is now recommended for researcher to use this model as a base model as it offer high predictive power.

7. Recommendation for Further Studies

This study was conducted in Unguja in Zanzibar which is located in a small geographical area of Tanzania; therefore, the finding from this study cannot be generalized to a larger population. This call for further study that could extend the geographical coverage in order to strengthen the evidence.

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