



THE INFLUENCE OF MARKETING-RELATED MOBILE ACTIVITIES ON THE ADOPTION OF MOBILE MARKETING TRANSACTIONS: A USES AND GRATIFICATION PERSPECTIVE

Dr Gift Donga¹ Orcid ID: 0000-0001-8263-7205,
Prof Armstrong Kadyamatimba² Orcid ID: 0000-0002-9638-0858

DOI: <https://doi.org/10.14426/jeiv1i2.702>

Abstract:

There is an increasing attention being accorded to the adoption of mobile marketing transactions in recent years, as both practitioners and researchers recognise that mobile commerce (m-commerce) is poised to burst into the mainstream. This study identifies a literature gap in which there seems to be an insufficient critical mass of studies on the adoption of innovative marketing technologies within the South African context. More specifically, very few studies have been conducted regarding the contribution of mobile marketing-related activities on consumer behaviour towards m-commerce. In view of this development, guided by the uses and gratification theory, the purpose of this study is to ascertain the influence of marketing-related mobile activities on the adoption of mobile marketing transactions, specifically focusing on the South African youth consumers. To fulfil the purpose of the study, the objectives of the study are centered on examining the degree to which the following marketing-related mobile activities: (1) provide information online, (2) access content online, and (3) share content online, influence consumers' adoption of mobile marketing transactions. Following a quantitative research technique and a descriptive single cross-sectional design, data was gathered through a self-administered questionnaire, using a sample of 810 students from three selected South African universities. Three research hypotheses were advanced in line with the study objectives, and they were tested using linear regression analysis. The study findings confirm the positive significant effects of marketing-related mobile activities in driving adoption of mobile marketing transactions. Managerial implications of the findings are discussed, and limitations and future research directions are also indicated.

Keywords: *Mobile related marketing activities, adoption, mobile marketing transactions, South Africa, Gratification*

Introduction

Globally, retail remains the most dynamic urban market, with changes almost on a daily basis (Prinsloo, 2016). Of significance are rapid technological changes in the African society, especially during the past decade, and also the impact on the retail market, making it one of the most exciting fields to work in. For instance, with the increasing adoption of the internet, consumer behaviour has rapidly changed, especially as far as convenience, variety and shopping experience is concerned (Gong, Stump & Maddox, 2013). Driven by the fast pace of development in innovative technology, the business environment has currently witnessed rapid mobility and an escalation in

¹Department of Business Management. University of Venda, Thohoyandou, South Africa; geedonga@gmail.com

²Department of Business Information Systems. University of Venda, Thohoyandou, South Africa; kadya@univen.ac.za

mobile devices usage by consumers. In line with these developments, the mobile marketing industry has expanded tremendously and is focused to continue growing (Yildiz & Kitapci, 2018). Thus, the growing use of the internet in Africa, provides a prospect for developing online marketing, which requires extensive exploration.

For both the retail and for consumers, the expansion of mobile marketing is beneficial. Thus, consumers have a wider range of choices for product and services, while retailers can attract consumers from various geographical locations and of different identities, thereby increasing their client base (Yousif, 2012). Persaud and Azhar (2012) state that mobile marketing is still evolving, but it has a greater prospect of expansion as the business environment witnesses even a greater technological revolution. According to Chinomona and Sandada (2013), mobile marketing has nevertheless been received with varying perceptions, despite the encouraging mobile marketing benefits and growth forecasts. In particular, due to mobile marketing transactions' complexity and consumer privacy concerns, some individuals take a long time to adopt to mobile marketing (Mallat, 2007; Riquelme & Rios, 2010). However, other researchers (e.g., Schierz, Schilke & Wirtz, 2010; Sinkovics, Pezderka & Haghirian, 2012; Tyrväinen & Karjaluoto, 2019) argue that there have been some positive consumer intentions to adopt mobile marketing. These contrasting views show that there are still some inconsistencies among studies with regard to general acceptance and adoption of mobile marketing.

In a move to facilitate consistence and reduce fragmentation of results from studies concerning adoption of innovative marketing technologies, Shankar and Balasubramanian (2009) proposed segmentation as a strategy to better understand consumer behavioural patterns of a specific market segment. Segmentation basically involves dividing consumers into groups so that members of a group (1) are as similar as possible in that same group, but (2) differ as much as possible from members from other segments. When consumers in the market are similar in terms of education, values, needs, income and other dimensions, examining adoption tends to be quicker and easier, simply because they are likely to have similar interests and behaviour (Shambare & Donga, 2019). Therefore, this study followed the dictates of other scholars (Gong & Li, 2008; Plant, 2006; Du, 2012) who postulated that mobile marketing appears to work more effectively for some customer segments than for others. For instance, Sultan, Rohm and Gao (2009: 574) proffer that, "specific consumer segments such as the youth market are using mobile phones increasingly as single-source communication devices that allow greater access to social circles, mobile-based content, and information". As a result, globally brands have also begun to tap into mobile platforms aggressively, in order to reach the youth segments. Against this backdrop, this study positions itself within the youth market in South Africa, specifically the tertiary students who are more technology savvy and are more likely to adopt products independently.

Since m-commerce is an ever-evolving retailing medium, consumers continue to develop new behavioural patterns (Turban, Outland, King, Lee, Liang & Turban, 2017), due to the shift from conventional transactional modes to online mobile transactions. Furthermore, consumers today are far less predictable and much better informed, as they continuously seek to find new information online regarding products and services. Thus, researching consumers' activities on the digital mobile platform is crucial for marketers to gain insight on how mobile marketing-related activities affect adoption of m-commerce. However, within the South African context, little is known regarding marketing-related mobile activities, and adoption of mobile marketing by consumers. Specifically, few studies (e.g., Chinomona & Sandada, 2013) have been conducted concerning the impact of marketing-related mobile activities on consumer behavioural intention to adopt mobile marketing transactions in the South African context. As such, it became imperative for the researcher to conduct an extensive study on the influence of marketing-related mobile activities on the adoption of mobile marketing transactions in a South African market. Thus, the study presents the following objectives:

1. To determine the relationship between marketing-related mobile activity linked to providing information online and adoption of mobile-marketing transactions.
2. To ascertain the association between marketing-related mobile activity linked to sharing content online and adoption of mobile-marketing transactions.
3. To establish the relationship between marketing-related mobile activity linked to accessing content online and adoption of mobile-marketing transactions.

This study contributes to the mobile-marketing literature by developing and testing a conceptual framework that links the relationships between marketing-related mobile activity with consumers' usage of mobile devices for transactional purposes. Furthermore, theoretically this study will offer an alternative lens to view the concept of

consumer adoption of marketing technology by using the Uses and Gratification Theory (UGT) (Katz & Blumler, 1974) as the underpinning theory of the study. Most prominent technology adoption researchers (e.g., Holden & Karsh, 2010; Persaud & Azhar, 2012; Venkatesh, Morris, Davis & Davis, 2003) overlooked the predictive power of the UGT in the adoption of mobile-marketing transactions.

Literature Review

Mobile Technology and the Rise of Mobile Commerce

Trading has witnessed a seismic change with the proliferation of mobile devices which put the shopping experience in the hands of the customers (Pahwa, 2018). Driven by a widespread understanding of the Internet's capabilities, the power of electronic commerce, and advances in wireless technologies and devices, mobile commerce (m-commerce) is rapidly approaching the business forefront (Senn, 2000). According to Luong (2007), mobile commerce can be defined as, "delivery of electronic commerce (e-commerce) capabilities directly into the consumer's hands via wireless technology and the placement of a retail outlet into the customer's hands anywhere". Therefore, m-commerce makes it possible for businesses to reach end-users directly, irrespective of their location. Through mobile commerce, end-users can make purchases, do banking, and buy tickets via mobile devices. The global increase in the interest for mobile commerce is a result of a high degree of interest shown by consumers on how to access business service and information, or to communicate from any place, and it is also the desire of the business community to reach end-users any time anywhere (Bauer, Reichardt, Barnes & Neumann, 2005).

Embedded within mobile commerce is mobile marketing, which is an innovation that creates marketing opportunities because of its ability to create frequent, fast, and direct communication with millions of consumers at any time (Smutkupt, Krairit & Esichaikul, 2010). According to the Mobile Marketing Association (2009), "mobile marketing is a set of practices that enables organisations to communicate and engage with their audience in an interactive and relevant manner through and with any mobile device or network". Although it is still in its infancy, mostly on the African continent, Donga, Kadyamatimba, Zindiye and Chibonda (2019) predict that mobile marketing will grow as technology continues to evolve. Developments in mobile technology have ushered in a variety of mobile marketing services. In general, mobile marketing services are imbedded in four main categories (Demir, 2013): (1) communications services, (2) information content services, (3) entertainment services, and (4) commercial transaction services. For the purpose of this study, special attention is given only to commercial transaction services which are referred to as mobile marketing transactions in this study.

Mobile Marketing Transactions

Online marketing transactions conducted on the mobile platform are gaining popularity, due to the convenience and portability of low-cost hand-held devices (Lam, Chung, Gu & Sun, 2003; Narang & Arora, 2016). With the explosive growth of the mobile phone population and the fast adoption of wireless network technology, support for commerce transactions on the mobile platform has become a realistic and attractive option (Johnson, Kiser, Washington, & Torres, 2018). Besides, the cost and performance of hand-held devices with wireless capability have also improved tremendously in recent years. A mobile marketing transaction can be defined as an electronic transaction that is conducted using a mobile device and a wireless access network (Veijalainen, Terziyan & Tirri, 2006). The transaction is a result of communication and promotion (marketing) of an offer between a firm and its customers, using a mobile medium, device, or technology.

Generally, a mobile marketing transaction occurs when a client accesses the web-enabled services of an online business, and after necessary negotiations and communications, decides to place an order and make a payment (Siddiqui, 2002). The order and payment information is transmitted from the mobile device to a base wireless station, and from there through the mobile communication infrastructure of the service operator to the wireless application gateway of the merchant. In a typical mobile computing environment, one or more of the transacting parties are based on some wireless hand-held devices. The steady shift of consumer behaviour to online shopping from brick and mortar retail stores, has not been lost on wireless mobile device manufacturers. Mobile commerce is yet another way to purchase online products from online storefronts, or online services from automated service providers. Computer-mediated networks enable these transaction processes through online store searches and wireless point-of-sale (WPOS) capabilities.

Marketing-related Mobile Activities

Mobile phones represent a medium that has been used in many markets, primarily for voice and data communications rather than for marketing activities (Tiago & Verissimo, 2014). Given that mobile communications represent a

relatively new marketing platform, Gao et al. (2010) propose that marketing-related mobile activity such as accessing content, sharing content, and providing information, help in explaining consumer adoption of mobile marketing. Thus, these marketing activities, might prime or condition consumers toward the adoption of mobile marketing.

As espoused by Jackson (2019), advances in online technology have over the years been impacted tremendously, in the way in which marketers obtain information from consumers in order to improve targeting, segmentation, reach, and therefore profitability. For instance, consumers are nowadays able to post directly to businesses' websites, and most popular online sellers have built in online review mechanisms to solicit comments from customers shortly after their purchase has been received. Furthermore, online reviews have become an important information content source that allows consumers to provide information to businesses based on past consumption experiences. In the process of these online reviews, businesses often request consumers to also provide information to them through surveys. These surveys afford customers a chance to voice their concerns and sing their praises of online businesses with which they have a transaction history. The marketing-related mobile activity of providing information online, has offered *great relationship-building tools to establish a sense of interaction between businesses and consumers* (Delafrooz, Paim, Haron, Sidin, & Khatibi, 2009). A high degree of online business-to-consumers (B2C) interactivity, according to Wirtz et al. (2013), promotes greater adoption of m-commerce.

Relating to the mobile marketing activity of sharing content, Ernst & Young Global Limited (2015) points out that people are increasingly depending on the Internet. The youth in particular, are increasingly using social media to share information across multiple channels in an integrated fashion. This is creating a greater need for digital relevance. In recent years, online marketing has become incredibly intelligent, and at this stage marketing notifications are served based on what consumers are sharing and talking about online (van Ooijen, 2019). Sharing has become something of a phenomenon and can come in all forms, whether it is a tweet, a Facebook post, or even an email telling someone to look at a link. Marketers are increasingly able to build profiles of consumers, based on their interests and what they are sharing online, and serving relevant advertisements accordingly. Consequently, Scott (2015) asserts that the probability of consumers adopting marketing services is very high when they share highly targeted and relevant notifications online. Hughes, Swaminathan and Brooks (2019) further allude that consumers are increasingly relying on peer-to-peer communications. Therefore, content sharing has continued to grow in importance as an integral component of businesses' mobile marketing strategies.

With the ubiquity of the Internet and mobile devices, most consumers search for products and services information online; a marketing-related mobile activity which Sultan et al. (2009) refer to as 'accessing content'. According to Chinomona and Sandada (2013), the need to access content might prime consumers towards mobile marketing adoption, and businesses need to understand consumers' motivations for searching particular content online, in order to create campaigns that promote brands and encourage them to purchase their products. Moe (2003) posits that consumers' satisfaction with the content they access online, influences their attitude of purchase on the web- site. Furthermore, Joel (2017) emphasizes that more consumers than ever are set to validate their purchase decisions by using content acquired online. For instance, real-time feedback from other consumers as well as consistent and updated business information such as products offered, services offered, payment methods, and business specialties. If too little content is provided, consumers may end up not having sufficient information to make purchasing decisions (Branco, Sun, & Villas-Boas, 2015).

The Uses and Gratification Theory

According to Sultan et al., (2009) the UGT (Katz, Blumler & Gurevitch, 1973) focuses more particularly on peoples' adoption of innovation for both utilitarian or rational motives and hedonic intentions for fun-seeking and enjoyment. In contrast to other theories linked to mobile commerce adoption, the UGT is centred explicitly on clarifying the underlining factors associated with consumers' choice of new media (Sultan et al., 2009). For instance, linked to consumers' usage of the Internet, Stafford, Stafford and Schade (2004) established that consumers' usage was delineated by process, content as well as satisfying socialisation needs. Additionally, in a research conducted specifically to the mobile setting (Nysveen, Pedersen & Thorbjornsen, 2005), perceived expressiveness and perceived enjoyment was directly stimulating the youth's intentions to adopt mobile data services. Consequently, the uses and gratifications perspective, though largely overlooked by most studies, aids as a powerful theory in explaining the responsibility of personal motives related to areas, for instance, the mobile media, where the drive of the individual for media consumption can be attributed to both utilitarian and non-utilitarian (Sultan et al., 2009).

The emphasis of the theory (Katz et al., 1973) is on how people use media and not necessarily on the impact of the media on the individual. In consistence with this notion, it implies that through the youth's engagement in mobile activity (i.e., for both utilitarian and hedonic motives), the possibility of eventual adoption of mobile marketing transactions is very high. Accordingly, the study proposes incorporating the following three marketing-related mobile activities as factors influencing consumer adoption of mobile marketing transactions in a youth-market setting: (1) providing information; (2) accessing content; and (3) sharing content. Consequently, the following hypotheses were advanced:

- H₁:** A greater degree of mobile activity linked to providing information will result in greater adoption of mobile marketing transactions.
- H₂:** A greater degree of mobile activity linked to sharing content will result in greater adoption of mobile marketing transactions.
- H₃:** A greater degree of mobile activity linked to accessing content will result in greater adoption of mobile marketing transactions.

The conceptual model depicted in Figure 1 summarises the above outlined hypotheses of the study.

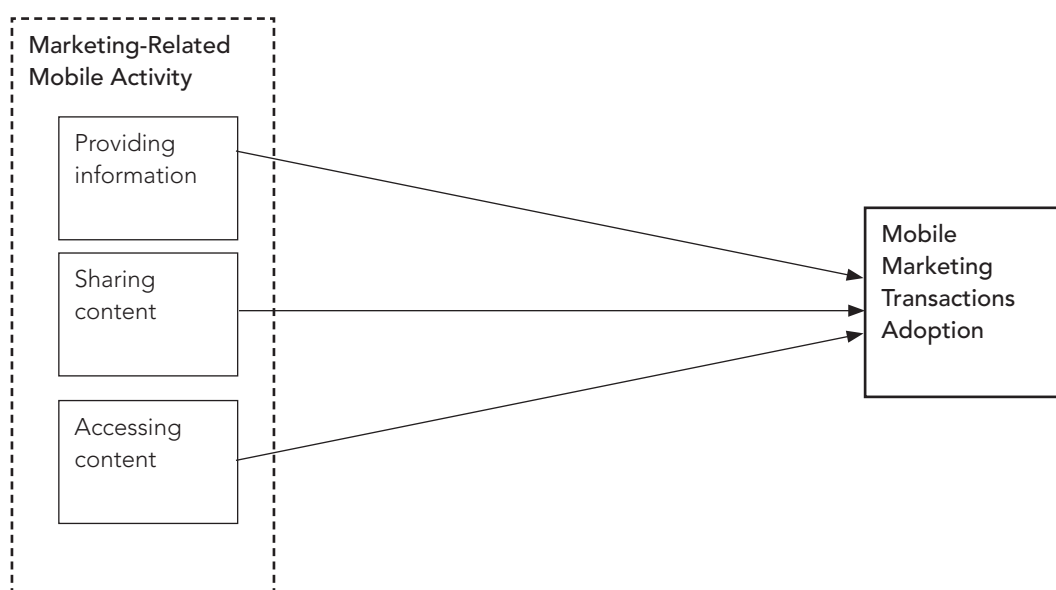


Figure 1: Proposed Conceptual Model
Source: Developed for the Study

Relating to the study population, the conceptual model implies that, youth consume online content mainly for information satisfaction (i.e., uses motives) and entertainment needs (i.e., gratification motives). Furthermore, they participate online through interacting with the content (e.g., providing and accessing content online) as well as with other users (e.g., sharing content) for enhancing social connections and virtual communities. Thus, it is through this online interaction that marketing-related activities are generated, which ultimately result in the adoption of mobile marketing transactions.

Research Methodology

Research Design and Data collection

The study followed the descriptive single cross-sectional design (Lindell & Whitney, 2001) in which only a single sample of respondents is extracted from the population of interest, and data is gathered from this sample only once. Since the study involved numerical measurements, and the variables involved were tested using some postulated hypotheses, a quantitative approach was considered appropriate for the study (Blumberg, Cooper &

Schindler, 2011). The data was gathered from respondents by a self-administered questionnaire, and respondents were requested to complete the questionnaires at their convenience. Collection points were established, where deposit boxes were placed in strategic places.

Questionnaire Design and scaling

Research scales were operationalised on the basis of previous work. Proper modifications were made in order to fit the current research context and purpose. Marketing-related mobile activity scales (i.e., information provision, accessing content, and sharing content) were all adapted from Sultan, Rohm, and Gao (2009), whilst consumer adoption of mobile marketing transactions was measured using a scale adapted from Oliveira, Thomas, Baptista and Campos (2016). Each of the three mobile-related marketing activity scales constituted of 4 items, respectively, whereas the adoption scale comprised of five items. All the measurement items were measured on a five-point Likert-type scale that was anchored by 1 = strongly disagree to 5 = strongly agree, to express the degree of agreement. Individual scale items are listed in Appendix A.

Sample

The current study sought to investigate the influence of marketing-related mobile activity on the adoption of mobile marketing transactions, particularly by tertiary students. For this reason, using a multi-stage cluster technique, the population of the study comprised of registered students from three selected South African universities. Given that the estimated total population obtained from the respective enrolment departments of all registered students within the three selected universities was very large (N= 65403 students) the researcher considered optimising costs and time associated with collecting data from a large sample. Nevertheless, to perform meaningful analysis when dealing with respondents from a large population, researchers often recommend a ratio of the number of items to respondents, and indicate a range from 5:1 to 10:1 (Pallant, 2010). Therefore, at the upper extreme there should be at least 10 respondents. Despite a great deal of contestation as to what constitutes a minimum acceptable sample, the 10:1 criterion was applied to this study, as a rule of thumb. The initial questionnaire contained 27 items¹ that had to be factor analysed. This transforms to a minimal sample size of (27 x 10) 270 respondents from each institution (cluster) or 810 respondents for the entire study. Thus, in total 810 questionnaires were distributed. Of these, 762 questionnaires were returned, representing a 94 per cent response rate.

Table 1: Demographic Profile of the Sample

Demographic characteristic		Percent
Gender	Male	54.6
	Female	45.4
Age	< 24 years	63.3
	25 - 35 years	35.8
	36 years >	1.0
Study status	Full time	94.8
	Part time	5.2
Level of study	Undergraduate	56.9
	B. Tech/Honours	22.4
	Masters	17.0
	Doctorate	3.7
Institution	UL	34.1
	VUT	32.4
	NMMU	33.5

¹This paper was extracted from a PhD thesis and only three out of nine objectives are reported. Consequently, of the total of 27 items constituting the questionnaire, only 17 items (See Appendix A) related to the objectives of this paper, are examined.

Data analysis and Results

In order to statistically analyse the measurement instrument as well as to test the study hypotheses, IBM Statistical Packages for Social Sciences (SPSS) V26 was used. In keeping with quantitative data, the following analyses were performed:

- o **Descriptive statistics** – to describe the sample’s demographic profile.
- o **Reliability analysis** – using Cronbach’s alpha, to assess the measure of internal consistency (reliability) of the measurement scales.
- o **Factor analysis** – to reduce variables into smaller groups of latent variables, including tests of content and criterion validity.
- o **Linear Regression analysis** – to test the direct effects of marketing-related mobile activity on the adoption of mobile marketing transactions.

Construct reliability

Using the Cronbach’s alpha (α) coefficient, the measuring scales were tested for internal consistency and construct reliability. Item selection and scale purification using inter-item and item-to-total correlations, were used to measure internal consistency for questions (Pallant, 2010). With the exception of demographic information, all other scales (see Table 2) were tested for reliability. According to Pallant (2010), perception scales yielding a Cronbach’s alpha of at least 0.6 are regarded as reliable and internally consistent. Cronbach’s alphas of the sub-scales ranged from 0.810 (Adoption of mobile marketing transactions) to 0.938 (Accessing content) (Table 2), which indicate an acceptable internal consistency and reliability measures for the questionnaire.

Table 2: Cronbach’s alpha (α) for the sub-scales

Sub-scale	Cronbach’s alpha (α)	Mean	No. of items retained
Providing Information	.888	.325	3
Sharing Content	.831	.301	3
Accessing Content	.938	.374	4
Adoption of Mobile Marketing Transactions	.810	.298	4

Construct Validity

Principal component analysis (PCA) was employed to determine the validity of the independent variables. Requirements to proceed with PCA were determined using Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett’s test of Sphericity (Pallant, 2010). The range of the KMO index falls between 0 and 1; Kaiser (1974; cited in Field, 2013) recommends accepting values greater than 0.5 as sufficient enough to proceed with PCA. Lastly, the Bartlett’s test, in all cases, yielded highly significant p-values ($p < 0.05$). Table 3 below summarises the PCA results.

Table 3: PCA output

Research Construct	Items	KMO	Bartlett’s test	P-Value	Community	Factor Loading
			Chi-square			
Providing Information	PI1	.792	1777.832	.000	0.555	0.789
	PI2					0.739
	PI3					0.705
Sharing Content	SC1	.500	516.852	.000	0.546	0.602
	SC2					0.783
	SC3					0.603

Table 3: PCA output (Contd.)

Accessing Content	AC1	.648	4970.098	.000	0.623	0.763
	AC2					0.663
	AC3					0.721
	AC4					0.673
Adoption of Mobile Marketing Transactions	AMMT1	.796	1292.000	.000	0.576	0.706
	AMMT2					0.619
	AMMT3					0.763
	AMMT4					0.711

Note: PI = Provision Information; SC = Sharing Content; AC = Accessing Content; AMMT = Adoption of Mobile Marketing Transactions

As depicted in Table 3, upon extraction, all the items within the six scales comprising the questionnaire, scored communalities above 0.5, which according to Field (2013) are considered satisfactory. Furthermore, the component matrix output after extraction for all the four scales, yielded high and distinct factor loadings greater than 0.5, thereby supporting the assumptions of construct validity (Civelek, 2018).

Hypotheses Testing

To test the study's proposed hypotheses, the linear regression model: $y = a + bx + e$ was individually applied to test each marketing-related mobile activity dependent variable with the independent variable (adoption of mobile marketing transactions).

The regression model consists of:

- (a) Y = Dependent variable
- (b) X = Independent variable
- (c) a = Y-axis intercept
- (d) b = Beta or the coefficient of X (independent variable)
- (e) e = Error term

Regarding the first hypothesis, which postulated that greater degree of mobile activity linked to providing information will result in greater mobile marketing transactions, the results depicted in Tables 4 to 6 reveal the standardized coefficient of each predictor, R , R^2 , F and β in linear regression analysis. The entire model reveals a significant effect of providing information online on adoption of mobile marketing transactions ($F_{(1,733)} = 632.167$, $p < 0.05$). In addition, analysing the effect size ($R^2 = 0.463$) shows that marketing-related mobile activity of providing information online, explained adoption of mobile marketing transactions with a power of 46.3%. Furthermore, as depicted in Table 6, the standardized coefficient (beta) value for providing information is positive ($\beta = 0.680$) and significant ($p < 0.05$), and thus supports hypothesis H_1 . A conclusion can therefore be advanced that a greater degree of mobile activity linked to providing information, will result in adoption of greater mobile marketing transactions by consumers.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680 ^a	.463	.462	.835

a. Predictors: (Constant), Providing information

Table 5: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	441.001	1	441.001	632.167	.000 ^b
	Residual	511.343	733	.698		
	Total	952.345	734			

a. Dependent Variable: Adoption

b. Predictors: (Constant), Providing information

Table 6: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.112	.105		10.581	.000
	Providing information	.703	.028	.680	25.143	.000

a. Dependent Variable: Adoption

Furthermore, studying the output of the linear regression analysis (see Tables 7 to 9), the test for the effect of sharing content online on adoption of mobile marketing transactions ($F_{(1,733)} = 4.150, p < 0.05$) reveals a significant relationship between the two variables. However, further analysis of the effect size depicts a low ($R^2 = 0.06$) predictory power of the independent variable. This entails that only 6% of total variation in the adoption of mobile marketing transactions was explained by sharing content. As highlighted in Table 9, the standardized coefficient (beta) value for providing information is also very low but, however, positive ($\beta = 0.75$) and significant ($p = 0.042$), and thus supports hypothesis H₂. Even though a weak significant relationship was established, a conclusion can be advanced that a greater degree of mobile activity linked to sharing content will result in greater adoption of mobile marketing transactions by consumers.

Model

Table 7: Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.075 ^a	.060	.040	1.137

a. Predictors: (Constant), Sharing content

Table 8: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.362	1	5.362	4.150	.042 ^b
	Residual	946.983	733	1.292		
	Total	952.345	734			

a. Dependent Variable: Adoption

b. Predictors: (Constant), Sharing content

Table 9: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.444	.104		32.964	.000
	Sharing content	.064	.031	.075	2.037	.042

a. Dependent Variable: Adoption

The last hypothesis of the study was to test whether greater activity linked with accessing content online would result in the adoption of greater mobile marketing transactions. The results in Tables 10 to 12 show the standardized regression coefficient of each predictor, R , R^2 , F and β in linear regression analysis. The entire model highlights a significant effect of accessing content from online stores on adoption of mobile marketing transactions ($F_{(1,733)} = 481.989$, $p < 0.05$). In addition, analysing the effect size ($R^2 = 0.397$) reveals that, marketing-related mobile activity of providing information to online retailers, explained adoption of mobile marketing transactions with a power of 39.7%. Furthermore, as portrayed in Table 12, the standardized coefficient (beta) value for accessing content is positive ($\beta = 0.630$) and significant ($p < 0.05$), and thus supports hypothesis H_3 . A conclusion can therefore be extended that, a greater degree of mobile activity linked to accessing content, will result in greater adoption of mobile marketing transactions by consumers.

Table 10: Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.630 ^a	.397	.396	.885

a. Predictors: (Constant), Accessing content

Table 11: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	377.797	1	377.797	481.989	.000 ^b
	Residual	574.547	733	.784		
	Total	952.345	734			

a. Dependent Variable: Adoption

b. Predictors: (Constant), Accessing content

Table 12: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.720	.093		18.433	.000
	Accessing content	.559	.025	.630	21.954	.000

a. Dependent Variable: Adoption

Discussion

Overall, the results highlight the increasing importance of marketing-related mobile activity in influencing consumers' decision-making towards adoption of mobile marketing transactions. In particular, the results place the importance of interactive marketing between consumers and online retailers as evident by the positive significant relationships between all the predictor variables (i.e., providing information, sharing content and accessing content) and adoption of mobile marketing transactions. Mangold and Faulds (2009) found that in recent years, mobile marketing-related activity has become a new hybrid component of integrated marketing communications that allows online retailers to establish strong relationships with their consumers. This therefore entails that marketing-related mobile activities of providing information online, sharing information about a product and services, and accessing content online, all prompt interaction between retailers and consumers. According to Pittaway (2017), the rise in internet connectivity and the affordability of smartphones entering the South African market, have all contributed to a surge in the mobile activity linked to marketing. Thus, more consumers now have devices capable of connecting with online businesses on various online information-sharing formats, including merchants' websites, social networking sites (SNSs) (e.g. Facebook, MySpace and Whatsapp), creativity works-sharing sites (e.g. YouTube and Flickr), collaborative websites (e.g. Wikipedia), and microblogging sites (e.g. Twitter) (Chu & Kim, 2011).

The above-mentioned sites foster a brand's understanding of the market as consumers can readily access or share relevant information with businesses. Furthermore, brands with a strong consumer following, can benefit from starting a direct line of communication which necessitates engagement with the very consumership that purchases their products or services. It is through this direct communication that consumers can create rapport and trust with online retailers. Consequently, this also leads to reduction in information privacy fears and consumers can voluntarily provide personal information to marketers, which ultimately influence consumer decision-making in mobile marketing transactions positively. Davis (2019) also highlights the significance of marketing-related mobile activity in steering adoption of m-commerce. According to the author, by going online, business can chart out their marketing strategies, for instance, ask consumers to share their views on a new product, suggest a flavour for a specific food brand, and even ask consumers to submit their art for a new logo or product cover. Furthermore, online businesses are not just sticking to content, but they are also creating entertaining podcasts and videos which promote ideas for new products and campaigns. Resultantly, this process makes consumers feel more involved in the marketing process, and the fact that they have provided some input in the process, makes them more likely to transact online.

Contrary to the researchers' expectation, an interesting finding was that the likelihood of sharing content had a moderate significant influence on the adoption of mobile marketing transactions (H_2 ; $\beta = 0.075$, $p < 0.05$), when compared to providing information (H_1 ; $\beta = 0.680$, $p < .05$) and accessing content (H_3 ; $\beta = 0.630$, $p < 0.05$), respectively, as is evident by the betta coefficients. This finding according to Gao et al (2010: 580), may be explained by the fact that, "youth consumers are so immersed in using mobile devices as a tool of interpersonal communication with friends and may have a particular tendency to keep their world free of outside commercial interferences". Thus, youth consumers disseminate brand-related information less in their established social networks where most of the sharing content activity is executed, and they are more likely to engage in the mobile activity of providing information and accessing content with online business individually. Jointly, however, the findings suggest that South African consumers' use of mobile phones for marketing-related mobile activity, may serve as a priming factor for future engagement in mobile marketing transactions. The results, hence, lend credence to the inclusion of the mobile-related marketing construct in the conceptual model. The researchers noted particularly, similar results on surveys conducted among the youth in China, the USA, and Pakistan (see Sultan et al., 2009).

Implications and Study Recommendations

It is important for managers to recognise the various drivers of the adoption of mobile marketing practices among consumers across global markets. The findings from this study suggest several implications to managers involved in the development of mobile marketing strategy and programs within growing mobile markets such as South Africa. These findings also suggest that managers will want to develop mobile strategies that stimulate viral mobile activity such as provision of information, information access, and content sharing, which then could lead to greater propensity to engage in mobile marketing transactions. To effectively achieve this, online retailers should not only put a heavy emphasis onto utilitarian attributes, but also take hedonic attributes in consideration while formulating online retail strategy. Academically, this study makes a significant contribution to the mobile marketing literature by exploring the impact of marketing-related mobile activities on the adoption of mobile marketing transaction in the context of South Africa – one of the few countries where m-commerce is thriving on the African continent.

To influence the youth market towards adoption of mobile marketing transactions through mobile-related marketing activity of accessing content, businesses first need to understand how that demographic consumes information, and then identify how to deliver a marketing message that appeals to them. Thus, the youths are hyper-connected online, and they consume content on multiple platforms and devices. Consequently, for the m-commerce retail to tap into this active market, it is important for them to create emotional connections through mobile-friendly content that fits the needs and preferences of the youth. A site with poor content is very likely to be overlooked, no matter what other factors may come into play. Content helps shape the aesthetics as well as the marketing communication of the business website. As a result, marketers need to ensure that they create trust with consumers through provision of relevant and accurate content on their websites.

As depicted in the results, the mobile-related marketing activity of providing significant information, influences adoption of mobile marketing transactions among the South African youth consumers. According to Olenski (2016), growing up in a digital age has made youth consumers more accustomed to providing information to a business in order to use their products or services. Therefore, it is important for businesses to understand what consumers think and feel about their personal data, including the confidence level the customer places in a businesses' ability to protect that information. Therefore, marketers need to put in place specific measures that protect consumers' information to ensure brand trust and ultimately the adoption of mobile marketing transactions. In addition, it is important for marketers to recognize that consumers are willing to share their information, if they are convinced it will satisfy their needs, while ensuring that the information is kept secure.

Last, the finding that youthful South African consumers who are deeply engaged in the mobile activity of sharing content may in fact prefer less commercial meddling in the mobile spectrum, should caution marketers about variances in behaviour among South African youth consumers, and suggest the need to modify their marketing campaigns to smaller consumer segments, based on the extent of content-sharing among friends. Furthermore, in order to induce sharing of marketing-related content among the youth consumers, marketers need to offer highly targeted advertisements, which can be customised, based on previous engagement with their content as well the particular demographic needs.

Study Limitations and Future Research

The choice of the sampling strategy may limit the generalisability of the study findings: while the sampling technique helped to gather data from an important consumer segment within the mobile market (i.e. the youth market), the findings from this research are limited in that the data was obtained from a narrow sampling frame of primarily university students. Additionally, the study's regression analysis tests between the predictor variables and outcome variable might not be final. Other causal sequences such as moderators and mediators not tested in this study, might in fact be plausible and worth investigating in future research. Future research within a broader sampling frame, should also further examine differences related to gender as well as to socioeconomic factors. Despite the limitations, this study will make an immense contribution to new knowledge of the existing body of mobile marketing literature in the African setting – a research context which happens to receive less attention from academics.

Conclusion

While there is an increased recognition of mobile commerce as a critical aspect in today's competitive business environment, the extant literature is insufficient regarding empirical evidence on how mobile marketing-related activities influence the adoption of mobile marketing transactions. However, the current study is set to close this gap by investigating the causal relationships between these constructs in the mobile commerce industry. Through the postulation of three hypotheses, a successful attempt was made in this study, of the effect of mobile-related marketing activities as predictors of consumers' adoption of mobile marketing transactions. To test the proposed hypotheses, data was collected from three selected South African tertiary institutions. The empirical result significantly supported all three posited research hypotheses. In addition to that, the current study investigated this contemporary issue in the African setting that is often a marginalised research context. As a result, the findings of this empirical study are expected to provide fruitful new insights and have implications on both scholars and retail practitioners across the globe.

References

- Bauer, H.H., Reichardt, T., Barnes, S.J. & Neumann, M.M. 2005. Driving consumer acceptance of mobile marketing: A theoretical framework and empirical study. *Journal of electronic commerce research*, 6(3): 181.
- Blumberg, B., Cooper, D. & Schindler, P. 2011. *Business Research Methods*. McGraw-Hill Education.
- Branco, F., Sun, M. & Villas-Boas, J.M. 2015. Too much information? Information provision and search costs. *Marketing Science*, 35 (4): 605-618.
- Chinomona, R. & Sandada, M. 2013. The influence of market related mobile activities on the acceptance of mobile marketing and consumer intention to purchase products promoted by SMS in South Africa. *Journal of Applied Business Research*, 29(6): 1897.
- Chu, S. & Kim, Y. 2011. Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising*, 30, (1): 47-75.
- Civelek, M.E., 2018. Essentials of structural equation modeling. *Essentials of Structural Equation Modeling* (2018).
- Davis, J. 2019. Social Media Gives Consumers and Brands a Direct Connection. [Online]. Available at: <https://ducttapemarketing.com/empowerment-social-media/> [Accessed on 19 November 2019].
- Delafrooz, N., Paim, L.H., Haron, S.A., Sidin, S.M. & Khatibi, A. 2009. Factors affecting students attitude toward online shopping. *African Journal of Business Management*, 3 (5): 200-209.
- Demir, A. 2013. Factors effecting Turkish customers' mobile marketing services adoption (Master's Thesis). Bahcesehir University.
- Donga, G., Kadyamatimba, A., Zindiye, S. & Chibonda, T. 2018. Consumer acceptance of mobile marketing through mobile phones: A case study of South African university students. *Inform. Technol. J.*, 17: 1-10.
- Du, P. 2012. Factors Influencing Consumers' Acceptance of Mobile Marketing: An Empirical Study of the Chinese Youth Market. *International Journal of China Marketing*, 2(2).
- Ernst & Young Global Limited. 2015. The future of insurance in a digital world. [Online]. Available on: [https://www.ey.com/Publication/vwLUAssets/The_future_of_insurance_in_a_digital_world/\\$FILE/EY-future-of-in-a-digital-world-design-comments.pdf](https://www.ey.com/Publication/vwLUAssets/The_future_of_insurance_in_a_digital_world/$FILE/EY-future-of-in-a-digital-world-design-comments.pdf) [Accessed on: 22 February 2019].
- Gao, T., Sultan, F. & Rohm, A.J. 2010. Factors influencing Chinese youth consumers' acceptance of mobile marketing. *Journal of Consumer Marketing*, 27(7):574-583.
- Gong, W. & Li, Z.G. 2008. "Mobile youth in China: a cultural perspective and marketing implications", *International Journal of Electronic Business*, 6(3):261-81.
- Gong, W., Stump, R.L. & Maddox, L.M., 2013. Factors influencing consumers' online shopping in China. *Journal of Asia Business Studies*, 7(3): 214-230.
- Holden, R.J. & Karsh, B.T. 2010. The technology acceptance model: its past and its future in health care. *Journal of biomedical informatics*, 43 (1): 159-172.
- Hughes, C., Swaminathan, V. & Brooks, G. 2019. Driving Brand Engagement Through Online Social Influencers: An Empirical Investigation of Sponsored Blogging Campaigns. *Journal of Marketing*, 83 (5): 78–96.
- Jackson, A. 2019. Should consumers be concerned about businesses tracking data online? [Online]. Available at: <http://inbound.business.wayne.edu/blog/should-consumers-be-concerned-about-businesses-tracking-data-online> [Accessed on: 13 October 2019].
- Joel, S. 2017. The 'Who, What, Where and How' of Updating Business Information Across the Web. [Online]. Available at: <https://synup.com/blog/update-business-info-across-web/> [Accessed on: 24 October 2019].
- Johnson, V.L., Kiser, A., Washington, R. & Torres, R. 2018. Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. *Computers in Human Behavior*, 79: 111-122.
- Katz, E. & Blumler, J.G. 1974. *The uses of mass communications: Current perspectives on gratifications research*. Sage Publications.
- Katz, E., Blumler, J.G. & Gurevitch, M. 1973. Uses and gratifications research. *The Public Opinion Quarterly*, 37, (4): 509-523.

- Lam, K.Y., Chung, S.I., Gu, M. & Sun, J.G. 2003. Lightweight security for mobile commerce transactions. *Computer Communications*, 26 (18): 2052-2060.
- Lindell, M. K. & Whitney, D. J. 2001. Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86 (1): 114-121.
- Luong, H.N. 2007. Mobile Advertising: case study of MindMatics and 12Snap Lokomobil. (Master's Thesis). Lulea Technology Universities.
- Mallat, N. 2007. Exploring consumer adoption of mobile payments—A qualitative study. *The Journal of Strategic Information Systems*, 16 (4): 413-432.
- Mangold, W.G. & Faulds, D.J. 2009. Social media: The new hybrid element of the promotion mix. *Business horizons*, 52 (4): 357-365.
- MOBILE MARKETING ASSOCIATION. 2009. MMA Updates Definition of Mobile Marketing. [Online]. Available at: <http://www.mmaglobal.com/news/mma-updates-definition-mobile-marketing> [Accessed on: 14 April 2019].
- Moe, W.W. 2003. Buying, searching, or browsing: Differentiating between online shoppers using in-store navigational clickstream. *Journal of consumer psychology*, 13 (1-2): 29-39.
- Narang, B. & Arora, J.B. 2016. Present and future of mobile commerce: Introduction, comparative analysis of m-commerce and e-commerce, advantages, present and future. In *Securing transactions and payment systems for m-Commerce* (pp. 293-308). IGI Global.
- Nysveen, H., Pedersen, P.E. & Thorbjørnsen, H. 2005. 'Intentions to use mobile services: antecedents and cross service comparisons', *Journal of the Academy of Marketing Science*, 33, (3): 330-46.
- Olenki, S. 2016. For Consumers, Data Is A Matter Of Trust. [Online]. Available at: <https://www.forbes.com/sites/steveolenki/2016/04/18/for-consumers-data-is-a-matter-of-trust/#4d2ff2d178b3> [Accessed on 28 October 2019].
- Oliveira, T., Thomas, M., Baptista, G. and Campos, F., 2016. Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, 61, pp.404-414.
- Pahwa, A. 2018. What Is M-Commerce? | The Rise Of Mobile Commerce. [Online]. Available at: <https://www.feedough.com/m-commerce-rise-mobile-commerce/> [Accessed on 12 February 2020].
- Pallant, J. 2010. *SPSS Survival Manual: A step by step guide to data analysis using SPSS, 4th Edition*. Berkshire, UK, McGraw Hill.
- Pittaway, C. 2017. Mobile payments are becoming much more regular in South Africa. [Online]. Available at: <https://www.itnewsafrika.com/2017/12/mobile-payments-are-becoming-much-more-regular-in-south-africa/> [Accessed on 22 January 2019].
- Prinsloo, D.A. 2016. Retail trends in a very dynamic South African market. *Urban Studies*, viewed, 30.
- Plant, S. (2006), "On the mobile: the effects of mobile telephones on social and individual life". [Online]. available at: www.motorola.com/mot/dod/0/234_MotDoc.pdf (accessed 20 October 2006).
- Riquelme, H.E. & Rios, R.E. 2010. The moderating effect of gender in the adoption of mobile banking. *International Journal of bank marketing*, 28 (5): 328-341.
- Schierz, P.G., Schilke, O. & Wirtz, B.W. 2010. Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic commerce research and applications*, 9(3): 209-216.
- Scott, D.M. 2015. *The New Rules of Marketing and PR.: How to Use Social Media, Online Video, Mobile Applications, Blogs, News Releases, and Viral Marketing to Reach Buyers Directly*. John Wiley & Sons.
- Senn, J.A. 2000. The emergence of m-commerce. *Computer*, 33(12): 148-150.
- Shambare., R. & Donga, G. 2019. The influence of social class and reference groups on the diffusion of innovations. In: Janine LOEDOLFF. *Consumer Behaviour: South African Psychology and Marketing Applications 2e*. Oxford University Press Southern Africa.
- Shankar, v. & Balasubramanian, S. 2009. Mobile marketing: a synthesis and prognosis. *Journal of interactive marketing*, 23, (2): 118-129.
- Siddiqui, A.T. 2002. M-commerce: Security in Mobile Transaction. *IEEE Communication Magazine on E-Commerce*.

- Sinkovics, R.R., Pezderka, N. & Haghirian, P. 2012. Determinants of consumer perceptions toward mobile advertising—a comparison between Japan and Austria. *Journal of Interactive Marketing*, 26(1): 21-32.
- Smutkupt, P., Krairit, D. & Esichaikul, V. 2010. Mobile marketing: Implications for marketing strategies. *International Journal of Mobile Marketing*, 5 (2).
- Sultan, F. & Rohm, A. 2005. The coming era of “ brand in the hand” marketing. *MIT Sloan Management Review*, 47(1): 83.
- Sultan, F., Rohm, A.J. & Gao, T.T. 2009. “Factors Influencing consumer acceptance of mobile marketing: a two-country study of youth markets”, *Journal of Interactive Marketing*, 23(4): 308-20.
- Tiago, M.T.P.M.B. & Veríssimo, J.M.C., 2014. Digital marketing and social media: Why bother?. *Business horizons*, 57 (6): 703-708.
- Turban, E., Outland, J., King, D., Lee, J.K., Liang, T.P. & Turban, D.C. 2017. *Electronic commerce 2018: a managerial and social networks perspective*. Springer.
- Tyrväinen, O. and Karjaluoto, H., 2019. A Systematic Literature Review and Analysis of Mobile Retailing Adoption. *Journal of Internet Commerce*, 18(2), pp.221-247.
- Van Ooijen, J. 2019. Driving consumer engagement through online social influencers an empirical investigation of content orientations and characteristics using mixed effects modeling. (Masters Thesis). Eindhoven University of Technology.
- Veijalainen, J., Terziyan, V. & Tirri, H. 2006. Transaction management for m-Commerce at a mobile terminal. *Electronic Commerce Research and Applications*, 5 (3): 229-245.
- Venkatesh, V., Morris, M.G., Davis, G.B. & Davis, F.D. 2003. User acceptance of information technology: toward a unified view. *MIS Quarterly*, 27 (3): 425–478.
- Wirtz, J., Den Ambtman, A., Bloemer, J., Horváth, C., Ramaseshan, B., Van De Klundert, J., Gurhan Canli, Z. & Kandampully, J. 2013. Managing brands and customer engagement in online brand communities. *Journal of service Management*, 24 (3): 223-244.
- Yildiz, O. & Kitapci, H. 2018. Exploring Factors Affecting Consumers Adoption of Shopping via Mobile Applications in Turkey. *International Journal of Marketing Studies*, 10 (2): 60-75.
- Yousif, R.O. 2012 Factors affecting consumer attitudes towards mobile marketing. *Journal of Database Marketing & Customer Strategy Management*, 19 (3): 147-162.

Appendix A: Questionnaire

Construct	Items	Source
Providing Information	<ul style="list-style-type: none"> I often provide my e-mail address to a web site using my mobile device I often register with a web site using my mobile device I often register for a competition or promotion using my mobile device Providing my personal information to websites will help me receive customised targeted offers. 	Sultan, Rohm, and Gao (2009)
Sharing Content	<ul style="list-style-type: none"> Friends often send me downloads such as applications, video clips, ringtones or screen graphics on my mobile device I often send my friends new applications, video clips, screen graphics or ringtones on their mobile devices When I receive product related information or opinion from a friend, I will pass it along to my other contacts on the social network site I am willing to recommend the product or service that I have seen advertised online to my friends or family. 	Sultan, Rohm, and Gao (2009)

Appendix A: Questionnaire (Contd.)

Construct	Items	Source
Accessing Content	<ul style="list-style-type: none"> • I often download content (wallpaper, ringtone, videos) using my mobile device. • I often access fun and entertaining content such as music or games using my mobile device. • I often pay for content such as games or music for my mobile device. • My mobile phone is useful for accessing information related to stores, products, restaurants, etc. 	Sultan, Rohm, and Gao (2009)
Adoption of Mobile Marketing Transactions	<ul style="list-style-type: none"> • I intend to use online mobile payment in the next months. • Interacting with my financial account over mobile payment is something that I would do • I believe that using mobile marketing is compatible with the way I live my life. • I believe that using mobile marketing is compatible with the way I live my life. • I believe mobile devices, in general, are the best way to conduct marketing. 	Oliveira, Thomas, Baptista and Campos (2016)