Effect of Word-of-Mouth Dimensions on Brand Loyalty: A case of mobile money services in Tanzania

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Abstract: *This paper aimed at determining the individual effects of WOM dimensions (Positive Valence WOM, Negative Valence WOM, WOM content, and WOM intensity) on brand loyalty in the Tanzanian mobile money service industry. The research areas included Sumbawanga and Mpanda Municipal councils from Rukwa and Katavi regions respectively. A structured questionnaire was used to collect data from 300 randomly selected respondents whereas Structural Equation Modeling was applied to analyze the collected data. The findings from this study reveal that Positive Valence WOM, WOM content and WOM intensity have a positive and significant impact on brand loyalty. However, Positive Valence WOM was highly influential than other WOM dimensions. The results also indicate that negative Valence WOM has a negative impact on brand loyalty. The paper concludes that the studied WOM dimensions are predictors of brand loyalty except for the Negative Valence WOM. Thus, it is recommended that mobile money operators (MMOs) should give more emphasis on creating Positive Valence WOM if they are to greatly benefit from WOM recommendation which is less cost full but more powerfully marketing tool than any other marketing tool.*

Key words: Brand loyalty, Word of Mouth, Mobile Money Services, Tanzania

Introduction

Brand loyalty is a well-researched marketing concept that has been widely discussed by numerous researchers and business practitioners over the past decades. The majority of scholars have focused on conceptualizing, measuring, and identifying the factors influencing the loyalty of customers towards different brands. Brand loyalty is defined as a tendency of customers to be faithful to a brand by repurchasing it (Akhavanfar, 2015). On the other hand, WOM refers to the discussions held by customers on issues related to usage, features, and their personal experience about the product or service (Kumar, 2016).

Literature reveals that identifying factors that make customers loyal to brands is an important task to businesses for their survival in the market. There are many advantages of having loyal customers to the brand. For example, loyal customers have positive attitudes and behaviors like repeat patronage and purchases that may inspire other actual or potential customers (Ngoma & Ntale, 2019). Loyal customers are not prone to promotion lures, reduces marketing costs for businesses, act as a source of competitive advantage and increase profits to the organization

(Matonya, Jan-Erik & Ngaruko, 2019). Therefore, the success of business firms depends mainly on its ability to attract loyal customers.

However, in this competitive business situation, the great challenge of MMOs is finding better ways on how to make their customers loyal to their mobile money service brands. Using WOM recommendations as a factor for building loyalty of mobile money services seems to be the means through which MMOs can survive in the existing competition. This is because customers trust more on what their colleagues say about the particular service brand. WOM is also a low-cost strategy that produces a strong loyal customer base (Barreda, Bilgihan, Nusair & Okumus, 2015) and is thousands of times more powerful than conventional marketing (Silverman, 2011).

Recently, Tanzania has experienced remarkable growth in mobile money services and an increased number of mobile money service providers which has increased competition among mobile money operators (Matonya et al. 2019). A study by Ndesangia (2015) shows that most of the Tanzanian mobile phone customers are non-loyal as they change their mobile phone brands from time to time, according to the prevailing trend and fashion. Some of these customers have become multiple users of mobile money service brands. This problem has also been experienced in other countries. For example, a study by Yehia and Massimo (2016) in Spain also found that mobile phone customers are not loyal to mobile phone brands.

Consequently, scholars and marketing practitioners have been looking for factors that build the loyalty of customers towards different brands. However, evidence shows that no study encompasses all factors which influence brand loyalty (Matonya et al., 2019). There is much evidence that studies that considered the relationship between WOM and brand loyalty have generated inconsistent and debatable findings. Some studies (Balakrishnan, Dahnil & Yi, 2014; Ngoma & Ntale, 2019; Praharjo & Kusumawati, 2016) regards WOM as one of the antecedents of brand loyalty whereas others (Eelen, Özturan & Verlegh, 2017; Nikhashemi, Paim & Khatibi, 2015; Niyomsart & Khamwon, 2016; Wong, Kwok & Lau, 2015) have pointed out that brand loyalty is an antecedent of WOM. Kim and Hyun (2019) postulates that WOM has no impact on brand loyalty. This creates a research gap that needs to be filled and to ascertain the relationship between WOM and brand loyalty.

Moreover, the majority of studies have concentrated searching on the overall effect of WOM on brand loyalty while leaving the individual effect of WOM dimensions on brand loyalty under searched. Studies about the effect of WOM on brand loyalty are also scarce and focused on the developed countries. However, customer loyalty is context-specific (Ngoma & Ntale, 2019). Thus, there was a need to conduct this study to establish evidence of what drives customer's loyalty towards brands in developing countries particularly Tanzania. Hence, this paper aimed at determining the individual effects of WOM dimensions on brand loyalty. This study contributes to the theory of the relationship between WOM dimensions and brand loyalty as previous studies of this nature are limited particularly in the developing economies.

Literature Review

Brand loyalty

Brand loyalty refers to a consumer's commitment to continuously repurchase certain brands in the future, regardless of the situation and marketing efforts of other brands possibly making those customers switching brands (Semadi and Ariyanti, 2018). Brand loyalty is important to the development and sustainability of the mobile money services industry. It is the ultimate goal of companies aiming to be sustainable and save operational costs like marketing costs, particularly in the competitive business environment. Loyalty acts as a high bonding factor between the customer and a brand. Loyal customers are less sensitive to prices increases and are willing to pay premium prices for individual brands as opposed to other choices since they may have discernment of unique value in that individual brands (Shin, Amenuvor, Basilisco & Owusu-Antwi, 2019). Brand-loyal customers are also confident that the competing brands will not offers the exceptional value they are getting from their loyal brand. Hence, establishing loyal customers to your brands seems to be the best long term strategy of having a higher strong customer base and market share.

On the other hand, loyalty programs such as redeemable points, discounts, free items, and exceptional treatment to some customers are not always successful and that their short-term advantages lead to liabilities (Ong, Lee & Ramayah, 2018). The loyalty programs miss relevance, have inflexible reward structures, and entrenched with poor quality customer care (Magatef & Tomalieh, 2015). Moreover, the benefits accrued from short-term loyalty programs can easily become unattractive in case there is a price discount move from a competitor. In other words, loyalty generated through value saving motives in a loyalty program is not sustainable. This is because customers are more concerned with saving money and they can defect anytime to the other brand offered by a competitor perceived to provide better value and enjoyment. Hence establishing strong customer-brand relationships through measuring brand loyalty and finding factors influencing brand loyalty rather than loyalty programs is indisputable for marketing researchers and practitioners.

However, a review of the literature reveals that there have been different approaches used to measure brand loyalty. The earliest approach was the behavioral approach which based on the repetitive buying behavior of customers (Sheth, 1968). The author refers to behavioral loyalty as "a function of a brand's relative frequency of purchase in time-independent situations, and it is a function of relative frequency and purchase pattern for a brand in time-dependent situations" (p.398). The behavioral approach was challenged by not separating the true loyal buyers with spurious loyalty buyers. Hence another approach evolved namely attitudinal approach which includes the buyer's psychological commitment to repurchase the brand (Russell-Bennett, McColl-Kennedy & Coote, 2007). However, to measure true brand loyalty, researchers should use both the attitudinal and behavioral approaches (Pan, Sheng, & Xie, 2012; Saini & Singh 2020; Zhang *et al.,* 2020). Despite its usefulness, the two-dimension approach (behavioral and attitudinal approach) has produced inconsistencies and debate among scholars (Worthington, Russell-Bennett & Hartel, 2009). This led to the development of the tri-dimension which includes behavioral, emotional and cognitive loyalty. Cognitive loyalty is referred to as a

decision made by the customer to stay with a brand while considering the switching costs and brand's traits (Worthington *et al.* 2009). On the other hand, emotional loyalty is the degree of positive feelings triggered by repurchasing a respective brand. However, the current study opted for the attitudinal, behavioral and cognitive measurements to measure the true loyalty of customers towards mobile money service brands to add more knowledge on the brand management literature.

Word of Mouth

WOM refers to the discussions held by customers on issues related to usage, features, and their personal experience about the product or service (Kumar, 2016). According to Almossawi (2015), WOM is the condition where people talk about companies' products or services which may either be positive or negative. Customers use these discussions as a means for purchase decisions. According to Rakic and Rakic (2018, p.243) "A special advantage of WOM is the fact that personal or advertising messages originating as one-to-one communications can - and occasionally do – reach millions of customers within days".

However, the literature reveals that WOM has undergone three streams of researches. The first stream concentrated on searching as to why customers prefer to share information regarding the products and services they experience. Scholars in this group have come up with various reasons which include extreme satisfaction or dissatisfaction of service, product or brand (Anderson, 1998), uniqueness of the product or service (Bone, 1992), and commitment to the company (Dick and Basu, 1994). The second stream paid attention to searching for the circumstances under which customers rely on WOM to make their purchasing decisions. Scholars in this group have concluded that customers who are risk aversions in purchasing decisions (Bansal & Voyer, 2000), deeply participating in purchasing decisions (Bansal & Voyer, 2000) and those with little knowledge of product category (Gilly, Graham, Wolfinbarger & Yale 1998) are more likely to rely on WOM. The third stream focused on the reasons why some personal sources of information are more effective compared to others. Literature indicates that strong ties (Bansal & Voyer, 2000) and perceptual affinity (Gilly *et al.,* 1998) are amongst the reasons which make some sources of information to be more influential than others.

Moreover, scholars have realized that word of mouth is more powerfully than any other means of marketing communications. Earlier studies like that of Day (1971) and Buttle (1998) revealed that the ability of WOM in changing undesired tendency into positive attitudes is estimated to be nine times powerful as compared to advertising. On the other hand; Silverman (2011, p.58) pointed out that "WOM is thousands of times more powerful than conventional marketing". It worth mentioning also that, the power embedded in the WOM can be used to patronize or work against a particular brand. Hence, companies are forced to find ways that foster positive WOM recommendations as the traditional marketing like advertisement has reduced its efficiency and customers trust more on advice given by their fellows and relatives (Armelin, 2011). However, limited studies have been done while considering WOM as an antecedent of brand loyalty, particularly in the service industry. The extant literature also reveals that the few studies done have focused on developed economies leaving the developing economies such as Tanzania

under-researched. Hence this study was an attempt to fill this gap.

In measuring WOM, previous studies have used the uni-dimension (Kim, Han & Lee, 2001) whereas others used the multi-dimension (Andreia, 2012; Goyette, Richard, Bergeron & Marticotte, 2010) approach. Goyette *et al.* (2010) developed a comprehensive WOM measure for online customers as an effort to extend the work by Harrison-Walker who proposed a two-dimension scale: WOM praise and WOM activity (Harrison-Walker, 2001). In their study, Goyette, *et al.* (2010) proposed four dimensions namely WOM intensity (3 items), positive valence WOM (2 items), negative valence WOM (2 items) and WOM content (2 items). However, the current study, utilized the approach by Goyette *et al.* (2010) hence testing its suitability for offline customers.

Theories and Development of Hypotheses

From the social exchange theory (SET) literature (Homan, 1958, Blau, 1964), it is suggested that WOM recommendations from colleagues and relatives make existing and potential customers to be loyal to the brands. The theory postulates that a set of reciprocity relationships exists between individuals. For example, a customer using a certain mobile money service brand when gives positive WOM recommendation to another existing or potential customer, that customer will also become loyal to that brand as a reciprocity reaction to their relationship. This is because customers in the service industry have more trust in WOM given by their fellows who have experience with the service provider (Taghizadeh, Taghipourian & Kazhae 2013). Literature suggests that there is a paucity of information regarding the relationship between WOM and brand loyalty. On the other hand, existing studies have generated inconsistent and debatable findings. Other scholars (Balakrishnan *et al.*, 2014; Ngoma & Ntale, 2019; Praharjo & Kusumawati, 2016), see WOM as an antecedent to brand loyalty whereas others consider WOM as the consequence of brand loyalty (Nikhashemi *et al.*, 2015; Niyomsart & Khamwon, 2016; Wong *et al.*, 2015). Unlike these studies, Kim and Hyun (2019) and Rahayu (2018) studied the influence of WOM on brand loyalty. The results revealed that WOM does not influence brand loyalty. This provides the need to have more researches to establish the relationship between WOM and brand loyalty. However, this study considered WOM as an antecedent of brand loyalty. It was hypothesized that WOM influences brand loyalty. Specifically, the current study hypothesized that:

H1: Positive Valence WOM has a positive and significant impact on brand loyalty
H2: Negative Valence WOM has a positive and significant impact on brand loyalty
H3: WOM content has a positive and significant impact on brand loyalty
H4: WOM intensity has a positive and significant impact on brand loyalty

Methodology of the study

The current study applied the positivism research philosophy and deductive research approach as well as an explanatory research design. The research areas included Sumbawanga and Mpanda municipal councils from Rukwa and Katavi regions respectively. These areas were purposively

selected because they have low bank networks compared to major cities of the country such as Dar es Salaam, Arusha, Mwanza, Mbeya and Moshi (BOT, 2015). People in these regions are most likely to opt for mobile money services because of its flexibility and availability in the regions. The population for this study included business owners/staff who undertake day to day activities of micro, small and medium enterprises (MSMEs) in the study area. The total targeted population was 2300 (900 from Rukwa region and 1400 Katavi region) whereas the sampling frame was 695 (320 from Mpanda municipal and 375 from Sumbawanga municipal) business owners/staff of MSMEs who are involved with the day to day activities. A structured questionnaire was used to collect data from 300 randomly selected respondents for this study.

In selecting a sample size of 300 the authors based on the recommendations from previous scholars including Field (2009) who recommended that a researcher should have at least 10 – 15 respondents per variable. Kass and Tinsley (1979) suggested having between 5 and 10 respondents per variable up to a total of 300 (beyond which test parameters tend to be stable regardless of the participant to variable ratio). Besides, Tabachnick and Fidell (2013) regard 300 cases as sufficient for factor analysis. Nevertheless, Kline (2011) establishes that, for studies utilizing Structural Equation Modeling (SEM), 200 cases are the minimum recommended cases for analysis of the data. In measuring the variables, this study applied the scale items from preceding scholars. The 12 scale items from Jones and Taylor (2007) and Kuenzel and Halliday (2008) were used to measure brand loyalty whereas 9 scale items (2-WOM Content, 2- Positive Valence WOM, 2-Negative Valence WOM and 3-WOM intensity) from Goyette et al., (2010) were applied to measure WOM.

Data preparation

The collected data were checked for missing values, outliers and multicollinearity problem. It was observed that there were missing data on the income variable and researchers decided to drop that case and remained with 299 usable questionnaires. In identifying outliers, the Mahalanobis D statistic (Mahalanobis, 1936) was applied. According to DeSimone, Harms and DeSimone (2015), data values are viewed as outliers if the Mahalanobis distance (D2) values are higher than the Chi-square values of the items applied. On the other hand, multicollinearity was tested using Variance Inflated Factor (VIF) and Tolerance to check the presence or absence of discriminant validity. VIF values higher than 5 indicates the presence of multicollinearity (Hair, Black, Babin & Anderson, 2010). The reliability of the research instrument was measured by Cronbach's coefficient Alpha.

Data Analysis

This study utilized SEM for analyzing the collected data due to its demonstrated strengths. SEM is a comprehensive statistical method for hypotheses testing concerning the relationship between observed and latent variables (Matonya et al., 2019). SEM also clearly takes care of the measurement error in indicators of latent variables something which is difficulty for other traditional statistical methods such as multiple regression, correlation, and ANOVA. Besides, SEM tests construct validity broadly and more deeply compared to traditional correlation

analyses (Bagozzi & Yi, 2012). The study used IBM AMOS version 22 to run the measurement model and structural models. The measurement model was used to determine the reliability and validity of all constructs. Average Variance Extracted (AVE) and Composite Reliability (CR) were tested to check whether the measurement model was reliable. Fornell and Larcker (1981) recommend the thresholds values of 0.50 and 0.7 for AVE and CR respectively. On the other hand, validity was assured by attaining the minimum recommended factor loadings of 0.5. Multicollinearity was tested to ensure the absence of a discriminant validity problem. The structural model was used to test the hypotheses of this study.

Evaluation of the measurement model

This study applied the Confirmatory Factor Analysis (CFA) to test the measurement model where the model fit indices were utilized to examine if the model fitted the data well. Table 1 presents the fit indices used and their cut-off points. After conducting the CFA, the results for goodness of fit indices was as follows: CMIN/DF = 2.37, GFI = 0.87, AGF = 0.82. CFI = 0.94, PNFI = 0.72, PCFI = 0.75 and RMSEA = 0.08. Hence the measurement model fitted well the collected data and hence guaranteed the researchers to continue with the next step of testing the hypotheses using the structural model.

Table 1. Goodness-of-fit indices for the measurement model

Fit indices	**Cut off point**
The ratio of chi-square and degree of freedom(χ^2/df)	≤ 3
Goodness of Fit Index (GFI)	≥ 0.90
Comparative Fit Index (CFI)	≥ 0.90
Adjusted Goodness of Fit Index (AGFI)	≥ 0.80
Parsimony Normed Fit Index (PNFI)	≥ 0.50
Root Mean Square Error of Approximation (RMSEA)	≤ 0.08
Parsimony Comparative Normed Fit Index (PCNFI)	≥ 0.50

Source: Al-Msallam (2015) and Kumar (2015).

Results and Discussion

Respondent's Demographic Characteristics

Table 2 reveals the age of respondents. It indicates that 48.8% of respondents aged between 20 and 30 years old while 36.5% had years ranging from 31 – 40 years. On the other hand, 9.7% had years between 41 -50 years and the rest (5%) were above 50 years. Table 2 also reveals that 51.8% of research participants were married individuals whereas single respondents occupied 46.2% of the studied population and the separated individuals were 1.3%. The distribution of research participants regarding the level of education is also presented in Table 2. It indicates that 38.5% of respondents had secondary school education and 24.4% had attended certificate or diploma education. Table 2 also reveals that graduate respondents and those with primary level education occupied 19.7% and 13.7% respectively. The least number of participants (3.7%) was

recorded from the postgraduate education group. Table 2 also postulates that M-Pesa occupied the largest customer base (63.9%) in the studied areas compared to other mobile money service providers followed by Tigo-Pesa which occupy 14.4% of market share. On the other hand, Airtel money was the third with 11.4% and Ezy-Pesa had the least customer base (0.7%) among the respondents.

Table 2. Respondent's Demographic Characteristics

Gender	**Frequency**	**Percent**
Male	176	58.9
Female	123	41.1
Total	**299**	**100**
Marital status		
Married	155	51.8
Single	138	46.2
Widowed	2	.7
Separated	4	1.3
Total	**299**	**100.0**
Level of education		
Primary school	41	13.7
Secondary school	115	38.5
Certificate/diploma	73	24.4
Graduate	59	19.7
Postgraduate	11	3.7
Total	299	100.0
Mobile money service		
M-Pesa	191	63.9
Airtel Money	34	11.4
Tigo-Pesa	43	14.4
Halo-Pesa	29	9.7
Ezy-Pesa	2	0.7
Total	**299**	**100**

Multicollinearity statistics

The findings reveal that there was no multicollinearity problem as VIF attained the recommended values. Table 3 reveals that the VIF values ranged from 1.26 to 1.59 which meets the recommended values. Hair et al. (2010) regard VIF values higher than 5 indicate the presence of multicollinearity. The results from Table 4 also support the absence of a multicollinearity problem by showing a correlation of less than 0.8.

Table 3. Multicollinearity statistics

Measured variables	**Collinearity Statistics VIF**
WOM intensity	1.38
WOM content	1.26
Positive Valence WOM	1.59
Negative Valence WOM	1.55

Table 4. Correlations

1	1	2	3	4	5	**6**
2	Positive valence WOM	1				
3	Negative valence WOM	.560**	1			
4	WOM content	.358**	.342**	1		
5	WOM intensity	.409**	.392**	.377**	1	
6	Brand loyalty	.545**	.393**	.406**	.442**	1

Exploratory Factor Analysis

There were three facets that the researchers considered in deciding the suitability of the data for factor analysis. The three aspects were sample size, factorability of the correlation matrix and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, and Bartlett's Test of Sphericity. Regarding sample size, Hair et al. (2010) posit that sample sizes should be just 100 or larger. Tabachnick and Fidell (2007) on the other hand, recommend having at least 300 cases for factor analysis. The current study used a sample size 300 which meets the recommendations of previous scholars.

In measuring sampling adequacy or whether data could be factored well, Hair et al. (2010) recommend the KMO greater than 0.6 and Bartlett's Test of Sphericity must be significant at $\alpha <$ .05. The results of this study indicate that KMO was 0.874 and Bartlett's Test of Sphericity was significant at $\alpha < .0.5$ as shown in Table 5. These findings suggest that the data were suitable to proceed with exploratory factor analysis. The communalities for each item were also determined and the results ranged from 0.400 to 0.738. These results were in agreement with the recommended value of greater than 0.3 (Tabachnick & Fidell, 2007).

We used Principal Axis Factoring with Direct Oblimin rotation to examine the fundamental structure of the scale items used. Three criteria were utilized to retain factors namely

Eigenvalues, factor loadings, and scree test (i.e. scree plot). Kaiser (1960) suggest retaining all factors with Eigenvalues higher than 1. Yong and Pearce (2013) recommends to retain factors with factor loading greater than 0.32 and all data points above the break/cut off point of the scree plot. However, the screen test criterion is considered reliable only when the sample size is not less than 200 (Yong and Pearce, 2013). Using the above criteria, four factors were extracted which explained 72.567% of the cumulative variance, and both had Eigenvalues greater than one (Appendix 2). Four items from brand loyalty namely BL9, BL10, BL11, and BL12 were dropped. BL9 and BL11 had multiple loadings and BL10 and BL12 did not meet the minimum requirement of factor loadings. The retained scale items had factor loadings ranging from 0.615 to 0.913 (Appendix 1). On the other hand, Appendix 3 indicates the scree plot of factors extracted as suggested by Yong and Pearce (2013).

Table 5. KMO, Bartlett's Test and communalities

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.874
Bartlett's Test of Sphericity	Approx. Chi-Square	2454.434
	df	136
	Sig.	.000
Communalities (Range)	0.400	0.738

Measurement model results

The CFA results reveal that the measurement model fitted the data as the fit indices threshold was met. The factor loadings of the measurement model range from 0.52 to 0.96 as shown in Table 6 and Figure 1. The fit indices and factor loadings result guaranteed the researchers to continue with the next step of testing the hypotheses using the structural model. On the other hand, Table 6 reveals that the Cronbach's Alpha values and Composite Reliability ranged from 0.83 to 0.92 and from 0.90 to 0.95 respectively. These findings surpass the suggested values of 0.7 (Nunnally & Bernstein, 1994). These findings confirm that the research instrument was reliable for the current study. Moreover, the results indicate that the square root of the Average Variance Extracted (AVE) of each variable exceeded the correlations between that variable and all other variables indicating that discriminant validity was achieved (Fornell & Larcker, 1981). It was found that the least square root of AVE in this study is 0.769 whereas the highest inter-variable correlation value is 0.560. The findings also suggest that convergent validity was not a problem as evidenced by the factor loadings of the measurement model in Table 6. The majority of items have factor loadings higher than 0.7 except one item from brand loyalty construct which was 0.52 though it also attained the minimum threshold (Fornell & Larcker, 1981). This means that majority of items explained more than 70% of what they were expected to measure.

Table 6. Accuracy Analysis of Statistics

Measured variables	**Cronbach's Alpha**	**AVE (Average Variance Extracted)**	**CR (Composite Reliability)**	**Factor loadings**
WOM intensity				
WIN1	0.899	0.751	0.944	0.88
WIN2				0.89
WIN3				0.82
WOM content				
WC1	0.906	0.834	0.949	0.86
WC2				0.96
PV1	0.863	0.760	0.922	0.87
PV2				0.87
Negative Valence WOM				
NV1	0.826	0.71	0.899	0.79
NV2				0.85
Brand loyalty				
BL1	0.915	0.591	0.951	0.73
BL2				0.78
BL3				0.86
BL4				0.85
BL5				0.83
BL6				0.73
BL7				0.52
BL8				0.79

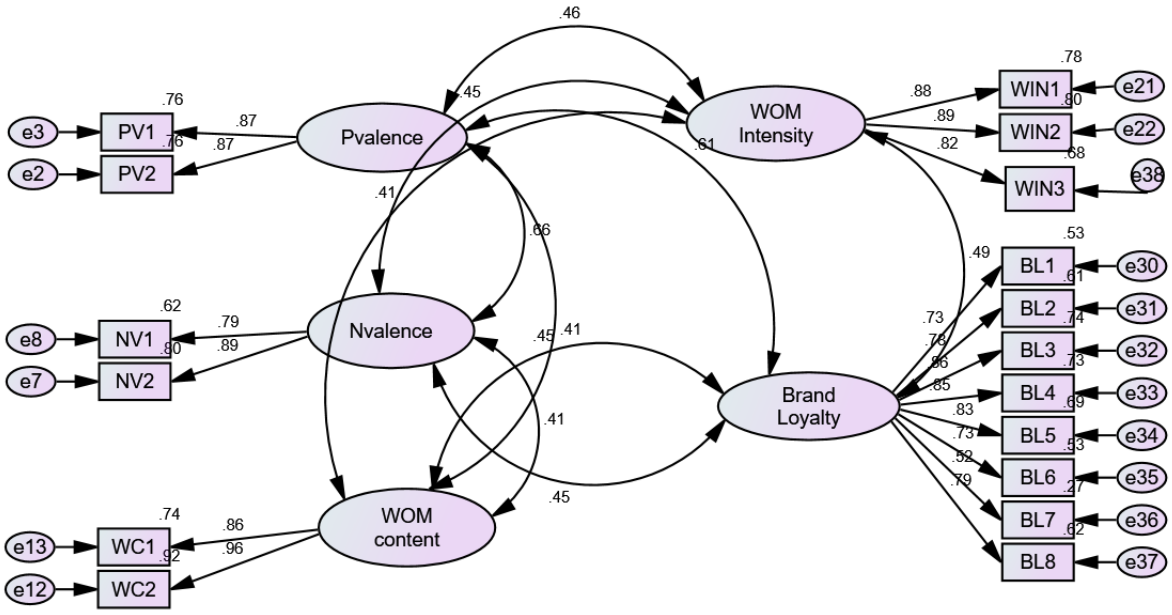

Figure 1: Measurement model of the study

Structural model Results

After ensured that the measurement model fitted the data, researchers decided to test the four hypotheses of the current study. However, before testing the structural model, researchers checked for its fitness using similar goodness of fit indices previously utilized to test the measurement model. It was found that the structural model attained the recommended goodness of fit indices.

In testing hypotheses, three criteria were used to establish the relationships between the individual WOM dimensions and brand loyalty. These include setting p-value at 5% and t = 1.96 and standardized regression weights (ß) of at least 0.2 as recommended by Hox and Bechger (1998) and Chin (1998) respectively.

The results from Table 7 indicate that a path from Pvalence (positive valence WOM) to brand loyalty attained a critical ratio of 4.438 and a significant p-value of .001 which meets the recommendation of Hox and Bechger (1998). Besides, the ß values of 0.437 from this path concur with Chin (1998) who posited that meaningful discussion is achieved when the standardized paths have a value of at least 0.2. Thus, the p-values, the ß values, and the critical values depict that Positive valence WOM has a positive and significant effect on brand loyalty.

Hence, H_1 which states that Positive Valence WOM has a positive and significant impact on brand loyalty was accepted.

The findings from Table 7 also reveal that a path from Nvalence (negative valence WOM) to brand loyalty has a critical ratio of -.144 and a non-significant p-value of 0.886 which deviates from the recommendation by Hox and Bechger (1998). On the other hand, the ß values of -.013 of a path from Nvalence to brand loyalty as shown in Table 7 also do not meet the recommendations by Chin (1998). Hence, the p-values, the ß values, and the critical values portray that Negative valence WOM has a negative effect to brand loyalty. Thus, H_2: Negative Valence WOM has a positive and significant impact on brand loyalty was rejected.

Table 7 also reveals that a path from WOM content to brand loyalty generated a critical ratio of 2.715 and a significant p-value which supports the recommendation by Hox and Bechger (1998). The ß values of 0.189 for this path also were in harmony with the suggestions given by Chin (1998). Thus, the critical ratio values, ß values, and p-values obtained suggest that WOM content has a positive and significant effect on brand loyalty. Hence, H_3 which postulated that WOM content has a positive and significant impact on brand loyalty was accepted.

The findings in Table 7 show that a path from WOM intensity to brand loyalty has critical ratio values of 2.998 and significant p-value. These results meet the recommendation by Hox and Bechger (1998) which states that the significant relationship between variables is attained when the critical ratio is 1.96 and has a significant p-value at 5%. On the other hand, the ß values were 0.221 which meets the recommendation by Chin (1998). Thus, the critical ratio values, the ß values, and p-values obtained suggest that WOM content has a positive and significant effect on brand loyalty. This leads to acceptance of H_4 which postulated that WOM intensity has a positive and significant impact on brand loyalty. The results are also indicated in Figure 2.

Table 7. Hypotheses testing results

Path			t	ß	P	Results
Brand_Loyalty	<---	Pvalence	4.438	.437	***	Supported
Brand_Loyalty	<---	Nvalence	-.144	-.013	.886	Not supported
Brand_Loyalty	<---	WOM_content	2.715	.189	.007	Supported
Brand_Loyalty	<---	WOM_Intensity	2.998	.221	.003	Supported

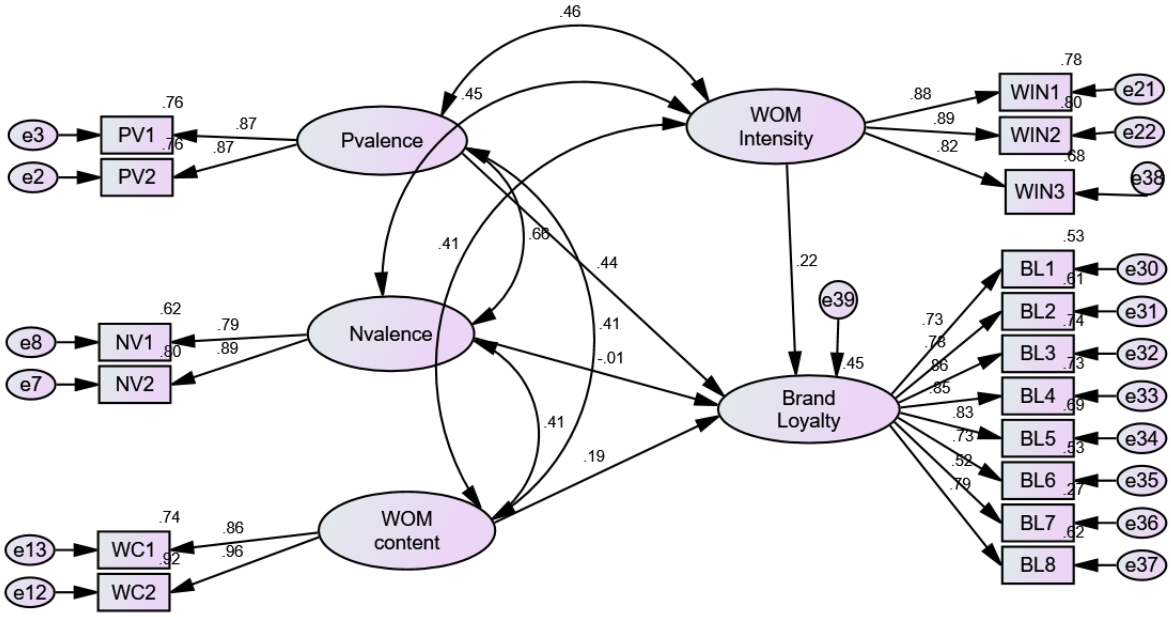

Figure 2: Structural model of the study

Discussion of the findings

The findings of this study suggest that large number of respondents were in the economically active group of people in the country. This is good news to the study area and the nation at large as involvement of these people in business contributes to the national development. The findings also indicates that majority of respondents were married individuals. This implies that married individuals are likely to engage in business to fulfill the needs of their family than do single individuals.

On the other hand, the findings have proven that Pos*itive* Valence WOM has a positive and significant effect on brand loyalty. This implies that when mobile money customers are more exposed to positive valence WOM recommendations, the more they become royal to these brands. In other words, positive WOM recommendations build the loyalty of customers towards mobile money brands. This may be because customers have more trust on other customers who have more experience with the particular brand. Hanaysha (2016) posits that, when customers receive positive recommendation about a brand from their fellow customers, they gain more confidence towards that particular brand which leads to positive repurchase intentions. WOM recommendation is regarded as a significant source of information that influences human

behavior (Filieri, Raguseo, & Vitari, 2018; Nam, Baker, Ahmad & Goo, 2018) and significantly affects the way customers make purchase decisions (Lin, Featherman, Brooks & Hajli, 2018). In a similar vein, Ngoma and Ntale (2019) concluded that when customers speak positively concerning a firm and its services/products, then customers are likely to be loyal to that firm. However, Kim and Hyun (2019) contradicts this view by pointing out that WOM recommendations does not have effect on brand loyalty.

However, Negative Valence WOM recommendations negatively impacted the loyalty of customers. That is, the more customers were exposed to negative words regarding a particular mobile money brand, those customers tended to be disloyal to that brand. This connotes that MMOs should impart customers with a positive experience and avoid things that arouse negative WOM recommendations from customers. This is because customers talk negatively and even deter others from mobile brands based on their past experiences (Ngoma & Ntale, 2019).

Moreover, the findings also revealed that WOM content had a positive and significant effect on brand loyalty. This suggests that the increase in WOM content raises the desire of customers to be loyal to the studied mobile money service brands. This implies that for MMOs to be successful and establish a larger customer base, they should offer services that will foster WOM content.

Furthermore, the findings also indicate that WOM intensity has a positive and significant effect on brand loyalty. This implies that the increase in WOM intensity also increases the desire of customers to be loyal towards the mobile money brands. In other words, this connotes that for MMOs to be successful and establish a larger customer base, they should offer services that will foster WOM content from their mobile money services.

Nevertheless, the findings of this study confirm the theory of social exchange by Blau (1964) that is based on the principle of generalized reciprocity. The theory posits that individuals have a set of reciprocity relationships which makes them feel obligated to pay back the benefits they get from their colleagues. For this study, the results connote that customers using a certain mobile money service brand when gives positive WOM recommendation to another existing or potential customer, that customer will also become loyal to that brand as a reciprocity reaction to their relationships.

Besides, if MMOs wants to strategically differentiate themselves from competitors through loyal customers, they should give more emphasis on positive valence WOM, WOM content, and WOM intensity. However, it should be noted that Positive Valence WOM is more influential followed by WOM intensity and lastly WOM content. Hence MMOs should pay more attention to generating Positive Valence WOM dimension if they want to effectively utilize WOM recommendation as a marketing tool.

Unlike previous studies, this paper has demonstrated empirically how WOM generates brand loyalty by giving more emphasis on the effect of individual WOM dimensions. This is a novel contribution to brand management literature because none of the studies have taken into account

the effect of individual WOM dimensions on brand loyalty.

This study also offers empirical validation for the eWOM scale by Goyette et al., (2010) to offline customers in the Tanzanian mobile money industry. This scale has 9 items in which the three factors have two items and the fourth one has three items. However, the review of the literature indicates that the concept of the number of scale items per factor has generated inconsistent and debatable conclusions. One group of scholars assert that each factor should have at least 3 items per factor to be well explained, ensure high reliability and identification (Hair et al., 2010) while the other group of researchers posits that two items per factor are enough for analysis (Goyette et al., 2010; Yong & Pearce, 2013). Other scholars have moved one step ahead by pointing out that even a single item factor is sufficient for factor analysis (Bergkvist & Rossiter 2007; Bergkvist & Rossiter 2009; Petrescu, 2013). The findings from the current study revealed that two items per factor are also sufficient for factor analysis. Therefore, this study disapproves the concept that two items are not adequate for factor analysis and thereby adding knowledge to the brand management literature regarding the minimum scale items for each factor.

Nevertheless, this study provides managerial solutions to MMOs on how to generate loyalty of customers towards brands. The study establishes that to build the loyalty of customers, MMOs should pay attention to marketing strategies that lead to Positive Valence WOM recommendations, WOM intensity and WOM content. However, more emphasis should be on Positive Valence WOM as it has a great impact on building the loyalty of customers towards mobile money brands than other WOM dimensions. Customers who are triggered by getting information from their fellows who are customers of a particular brand consider such a brand worth paying more for, sharing the brand with friends, and returning for the service.

Conclusion and Recommendations

This paper aimed at finding the effect of WOM dimensions on brand loyalty. The findings from this study indicate that Positive Valence, WOM intensity and WOM content positively and significantly influence brand loyalty in the mobile money service industry. Therefore, it is concluded that the WOM dimensions are predictors of brand loyalty except for the Negative Valence WOM which had a negative impact on brand loyalty. It is recommended that MMOs should give more emphasis on creating Positive Valence WOM if they are to greatly benefit from WOM recommendation which is less cost full but more powerfully marketing tool than any other marketing tool.

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APPENDIX 1: Exploratory Factor Analysis Output of Retained Items for Word of Mouth and Brand loyalty

Word of mouth construct	Item	Description of the items description	Factor Loadings (Pattern Matrix)
WOM intensity	WIN2	I spoke of this brand company much more frequently than about any other type of product or service	.913
	WIN1	I spoke of this brand much more frequently than about any other brand	.849
	WIN3		.763
WOM positive valence	PV2	I have spoken favourably of this brand to others	.651
	PV1	I am proud to say to others that I am a customer of this brand	.623
WOM content	WC2	I discuss the quality of the services offered to others	.889
	WC1	I discuss the variety of services offered to others	.872
WOM negative valence	NV2	I have spoken unfavourably of this brand to others	,799
	NV1	I mostly say negative things about this brand to others	.761
Brand Loyalty Construct			
	BL1	I encourage friends and relatives to do business with this brand	.627
	BL2	I will speak positively about my mobile money brand	.763
	BL3	I recommend this brand to someone who asks my advice	.790
	BL4	I would like to switch to another mobile money operator that offer better services	.795
	BL5	When I last used mobile money services, this brand was my first choice	.790
	BL6	I would like to switch to another mobile money operator that offer more services	.660
	BL7	Price is not an important factor in my decision to remain with this brand	.615
	BL8	I am very interested in what others think about my mobile money brand	.761

Extraction Method: Principal Axis Factoring.
Rotation Method: Oblimin with Kaiser Normalization.

APPENDIX 2: Eigen Values – Total Variance Explained

Factor	Initial Eigenvalues			Rotation sums of square loadings
	Total	**% of Variance**	**Cumulative %**	**Total**
1	7.631	44.887	44.887	6.148
2	1.963	11.544	56.431	4.079
3	1.422	8.363	64.794	3.195
4	1.322	7.774	**72.567**	4.479
5	.789	4.642	77.210	
6	.745	4.385	81.595	
7	.575	3.381	84.975	
8	.462	2.715	87.690	
9	.328	1.928	89.618	
10	.321	1.887	91.505	
11	.288	1.695	93.200	
12	.260	1.527	94.727	
13	.235	1.380	96.107	
14	.199	1.171	97.278	
15	.176	1.038	98.316	
16	.156	.920	99.235	
17	.130	.765	100.000	

Extraction Method: Principal Axis Factoring

APPENDIX 3: Scree plot