



Effect of Market Alliance on the Performance of Microfinance Institutions in Rwanda

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Abstract: *The intense competition and constantly changing market conditions in modern-day businesses prompt organizations to adopt in order for them to survive. Due to that microfinances are required to become more proactive and innovative to maintain their competitive edge. One of the solutions for microfinances to overcome challenges and remain competitive is the marketing alliance's practice (Thomaz and Swaminathan, 2015). The study's purpose was to assess the marketing alliance's effectiveness on the performance of Microfinance Institutions in Rwanda. The target population was 491 MFIs, and a sample population of 220 was determined using Slovene's formula. Primary data was collected by use of a questionnaire. Structural Equation Modeling (SEM) was used to establish the relationship between marketing alliance and performance of MFIs. The SEM results revealed that the regression coefficients for marketing alliance are significant with the p-values ($p < 0.05$) meeting the cutoff point of 0.05. This shows that marketing alliance has a significant influence on the performance of MFIs. Further, SEM shows that the model was significant ($\chi^2 = 52.113$, $p < 0.05$), with a reasonably close fit model since RMSEA value is < 0.08 , and the R^2 of 0.71 showed that 71% of the changes in the performance of MFIs are due to marketing alliance as mediated by strategic alliance management. The results have both practical and theoretical implications. Since a positive relationship exists, it is recommended that policymakers, and managers/CEO in MFIs should promote marketing alliances as a tool for improving the performance of the organizations and boost the country's economy.*

Keywords: *Marketing alliance, Strategic alliance management, Performance, Microfinance, Rwanda.*

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1. Introduction

Nowadays, the business is growing faster and market conditions are changing accordingly. In fact, innovation and business capability are vital in business environment to meet and sustain business on the market. It is in that angle, whereby market alliance among two or more organizations is required to be formed for sake of sharing marketing strategy, promoting concepts, services or products. According to Thomaz and Swaminathan (2015), marketing alliance is the sole measure to adequately solve and increase marketing capability. Further, a growing stream of research in marketing has investigated how

organizations can gain a competitive advantage and how researches in marketing add value to the market position of the firm (Zhang and Wu, 2017). The main goals of marketing alliances usually include obtaining essential knowledge for new products and development, attaining marketing resources, and gaining mutual business benefits from the relationship.

Further alliance members expand their marketing strategies to enhance their partners' competitive advantages in the market, allowing the partners to maintain sustained and mutually beneficial cooperative relationships. The common marketing strategies employed in the marketing process are brand alliance, distribution channel sharing, and joint promotional

activities for new products (Yang and Meyer, 2019). Baker *et al.* (2018) indicated that marketing strategic alliances are based on the principles of resource sharing and cooperation that enable alliance members to achieve certain objectives. In the business world context, the forces of globalization and competition have led to a significant shift in the institutional structure of organizations, from a stiff hierarchy to a more fluid and disaggregated institutional structure comprising internal and external networks (Zhang and Wu, 2017). In addition, marketing alliances form a network wherein a given alliance acts as a conduit for the flow of information and resources between otherwise unconnected institutions. Consequently, each firm's unique position in this connection or network can affect its performance over time (Mazzola, Perrone, and Handfield, 2018; Thomaz and Swaminathan, 2015), and it is used by firms to access resources and capabilities (Thomaz and Swaminathan, 2015) and to signal quality (Swaminathan & Moorman, 2009). From this perspective, some researchers have shown that marketing alliances can lead to increased organizational performance (Thomaz & Swaminathan, 2015).

In contrast, Watts and Koput (2019) in their paper researched whether a firm's position in a network of market alliances influences the performance of the firms. The results revealed that having a prominent position in a market network can harm the performance of the institution especially when uncertainty is high. This study examines whether marketing alliances as a variable, defined as alliances that enable a firm to gain access to new resources, markets, brands, products, and services (Zhang and Wu, 2017), have an impact on firm performance. This research focuses particularly on marketing alliances in the MFI sector. The use of marketing alliance as a strategy may play an important role in the development of MFIs in developing countries. However, the scarce literature on the subject creates a lack of information to make this strategy more popular among MFIs in developing countries. Furthermore, in the field of marketing, the service marketing alliances remain understudied, especially in the financial service industry (Geleta, 2016).

Salimi, Zarea, and Khajeheian (2012) note that most of the new products and services fail to launch, even reaching to market due to poor marketing capabilities and lack of adequate required skills. In addition, there is a need for the creativity of new marketing strategies that are tailored. Such difficulties are experienced both by small, medium, and even large enterprises. Therefore, marketing alliance can provide an avenue for firms to deal with these shortcomings and improve their profitability, consequently improving their financial performance. The history of microfinance in Rwanda can be traced back to the informal mutual help organizations which existed for years, though the sector was formalized in 1975 with the establishment of the first Banque Populaire in Rwanda (Mutual Saving Bank). After 1994, international humanitarian organizations encouraged the rapid growth of microfinance as part of wider relief and reconciliation programs. The period during the mid-1990s was characterized by the emergence of new microfinance providers who used various approaches (Rwamigabo, 2019; Eularie, 2018).

This study contributes to the theory since a theory such as resource-based theory has been tested, and their supporters

have been tested as well. In addition, new concepts have been introduced. Moreover, the research contributes to the knowledge inasmuch as it serves as an evidence to see whether marketing alliances contribute positively or negatively to the organization's performance in Rwanda's financial service industry and avail empirical literature on the strategic alliance field. The null hypothesis of the study was formulated as below:

H₀: There is no significant influence of marketing alliance on the performance of Microfinance Institutions in Rwanda.

2. Literature Review

2.1. Theoretical Review

This study was guided by the following theories; Transaction cost theory, strategic behaviour theory and resource based theory.

2.1.1. Transaction Cost Theory

The transaction cost theory was proposed by Ronald Coase in 1937. More succinctly transaction costs are: search and knowledge costs, bargaining and decision costs, and policing and enforcement costs. According to transaction cost theory, the decision of transaction in a firm, is influenced by the minimization of the sum of production and transaction costs (Huda, *et al.*, 2019). The transaction cost theory is considered the most dominating theory in regards to alliances, and is the theory that guides this study. Further, transaction costs exist due to the bounded rationality of actors and opportunism among actors, causing friction on markets (Albers, 2019).

Actors presumably choose the option in the spectrum of 'market and hierarchy' that leads to a minimization of these costs. The term hierarchy in this case refers to actors internalizing functions in the form of firms instead of using the market. While markets and hierarchies are polar opposites, alliances could be seen as something in between the spectrum (Penney & Combs, 2019).

Yasuda (2018) states that transaction cost theory could be extended to explain alliances, even if it perhaps is not the only viable explanation. Therefore, transaction cost theory contributes positively to the firm's performance due to the cost-production reduction similar to the resource based theory's idea.

2.1.2. Strategic Behaviour Theory

This theory can be traced back to Cyert and March in their work 'a behaviour theory of the firm' written in 1963. It refers to actions taken by firms which aim to influence the market environment during which they compete. In reference to this definition, strategic behaviour involves primarily long-run actions and decisions like production capacity, research and development (R&D), investment, location, advertising and, product differentiation (Ketrapakorn & Kantabutra, 2019).

The theory has two categories: first, non-cooperative behaviour occurs when a firm tries to improve its position relative to its rivals by seeking to prevent them from entering a market, driving them out of business or notably reducing their profits as well. Second, cooperative behaviour occurs

when firms in a market seek to coordinate their actions and thus limit their competitive responses. Companies are expected to form cooperative agreements if they believe that the arrangements will better enable them to meet their strategic objectives, with the focus being on maximizing profits (Vogus, 2018).

2.1.3. Resource-based theory

Resource-based theory is a theory to achieving competitive advantage that emerged in the 1980s and 1990s, after the significant works published by Wernerfelt, B. (The Resource-Based View of the Firm), Prahalad and Hamel ("The Core Competence of The Corporation"), Barney, ("Firm resources and sustained competitive advantage") and others. The supporters of this view argue that firms should look inside the institution to seek out the sources of competitive advantage rather than watching the competitive environment for it (Arslan, 2018). The resource-based view of the firm has been instrumental for the analysis of strategic alliance formation as there is growing consensus the rise in the number of strategic alliances which has been driven by resource interdependence and complementarities (de Man & Luvison, 2019; Nshimiyimana, *et al.*, 2021).

March, Waquet and Martinet (2017) noted that every firm owns a diverse outline of tangible and intangible resources. The RBV establishes the existence of key firm resources that can be used to achieve superior performance. The theory of Resource-Based View assumes that individuals are inspired to make maximum use of economic resources available and rational choices that a firm makes which are shaped by the economic framework (Dyer, *et al.*, 2020). For a firm to have a superior performance, resources and capabilities have to qualify as exceedingly valuable, rare, inimitable, and non-substitutable.

2.2 Empirical Review

In this study, marketing alliance is the catalyst of performance of MFIs thus the results of the model also showed a close fitted and statistically significant model. In this case, there was enough support to reject the null hypothesis. This showed that marketing alliance as mediated by strategic alliance management has a significant effect on the performance of MFIs. Hence, the finding of this research supports that MFIs' performance is enhanced through marketing alliances.

Compared to others studies already conducted such as: De Man and Luvison (2018) in their research titled Strategic repositioning by means of alliance networks: The case of IBM stated that there is a good performance effect of the alliance. Their study employed qualitative and quantitative data. In their study, the results showed that by involving new partners in the network and by loosening the ties with its existing partners, IBM managed to transform from a hardware manufacturing company to a global service provider and software company. The findings suggest that the traditional view of large firms as being slow to adapt may not be valid because alliance networks can be used to overcome inertia. On the other hand, the current research indicated that strategic alliance contributes positively

to the alliance performance in the global perspective. Marketing products, and services alliance sustain and contribute to the firm's performance.

Lubello *et al.*, 2015 share the same views with the authors because the result of the current research revealed that due to globalization, the firm's success depends on collaboration, it is difficult for one company to adequately satisfy the customer's need single-handedly. Thus marketing alliance is required to solve customer's need, sustain the development of a firm and gain a competitive advantage. Alliance gives rise to several gains for the firm which include the division of the cost of new product development between the firms that are working together, shortened lead times as well as the contribution of core competencies by the various partners involved.

Tabare (2016) study revealed that the new models of organization and the evolution on strategies of commercialization and patterns in new technologies, marketing, product and services are necessary to obtain strategic advantages that provide conducive positions in the market. The finding is in line with the current author's findings while all these variables contribute to the performance of the firm as proved by the analysis conducted and the statistic already done. Therefore, a marketing alliance constitutes a blueprint which if implemented advances the strategic position of the firm in the global business world.

Thomaz and Swaminathan, (2015) in their research on marketing alliances, firm networks, and firm value creation revealed that companies can adapt marketing alliance to achieve competitive advantage in the market-place. The authors wanted to examine whether marketing alliance as a variable, enables a firm to gain access to new resources, markets, brands, and products. Their findings revealed that firms enter into marketing alliances to gain access to new resources, markets, brands and products. Incongruent to these findings by Thomaz and Swaminathan, (2015), the current study has also pointed out the significant contribution that firms gain by engaging in healthy marketing alliances.

In particular, the researcher found that MFIs stand to gain significantly when they engage partners to the alliance to gain market capabilities and positioning. Marketing alliances help diversify a firm's product portfolio and expand its geographic reach, both of which reduce the volatility of the firm's demand. Compared to this current study, the result of the analysis revealed almost the same at the satisfactory level. The respondents confirmed that marketing alliances can be a diversifying force, helping the firm gain access to new markets or products through external and internal partnerships, and this has a positive impact on firm performance. In addition, further analysis using Pearson's correlation and regression analysis showed that marketing alliance has a significant effect on the performance of MFIs.

Similar findings were obtained in a study carried out by Yang and Meyer (2019). In this research, the author found that marketing alliance enable firms to gain more knowledge for new products and development. In addition, firms that exploit marketing alliances may be able to enter in to new markets without needing to conduct market research or invest indirect

market entry. Further, there is more resource sharing among the alliance partners which can enhance market capabilities of the partners (Baker *et al.*, 2018).

Palmatier (2018) also points the need for marketing alliance which tends to enhance the buyer-seller relationship in the market. Since all companies produce in order to ultimately reach the market, market alliance can enhance the market reach of a company. In this regard, firms end up increasing their market share or their customer base through marketing alliances.

The research by Achrol and Kotler (2018) revealed that entering into market alliance can benefit firms informing network with other organizations. Such networking can offer firms an avenue for customer growth, new markets, increased sales and new knowledge about the market. Zhang and Wu (2017) found that market alliance help organizations to reduce the volatility of their demand.

Similarly, Mahan *et al.* (2018) found that marketing alliance can help organizations increase customer acquisition, satisfaction and retention. The ease of access to customers can be achieved when firms enter into an alliance with a distribution channel. It is therefore, notable from this literature that market alliance have high likelihood of producing positive effects to the engaging partners. Similar to these arguments, the current research also found that marketing alliance is beneficial for MFIs in providing marketing capabilities and increasing the MFIs customer base.

However, Watts and Koput (2019) revealed that it is not every time that market alliance yields positive results. In situations where there is high market uncertainty, market alliances may end up yielding negative results especially for the firm that invest more in the partnership.

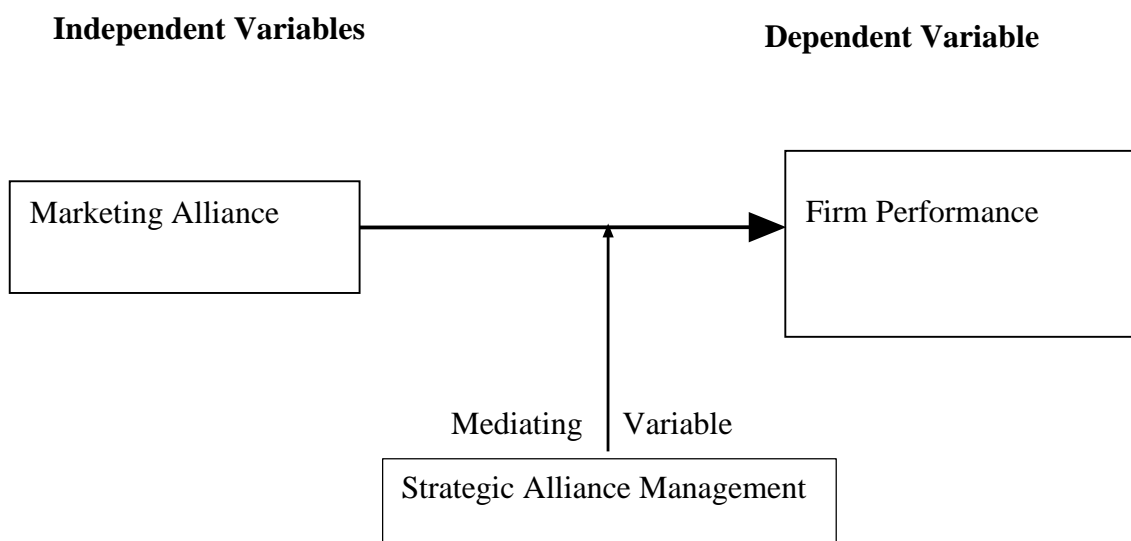
2.3 Organizational Performance

The concept of organizational performance is predicated upon the thought that a corporation may be a voluntary association of productive contributions, including human, physical, and capital resource, for the aim of achieving a shared purpose. Those providing the assets only commit those to the organization so long they are satisfied with the worth received in exchange, relative to alternative uses of the assets (Arena, Azzone & Bengo, 2018).

According to Hagedoorn *et al.*, (2018), organizational performance is the degree to which an organization achieves its goals, the degree to which an organization acquires the needed resources, the degree to which an organization maintains internal harmony, and the degree an organization satisfies its stakeholders. However, Prashantham & Yip (2019) highlighted a number of difficulties evident in the measurement of organizational performance. First, the future performance may be a reflection of past performance, secondly, the organization's performance can be reversed over time due to feedback mechanisms, and third, those differences exist between short-term and long-term influences on organizational performance. There is evidence suggesting that an organization forming alliances to enhance its organizational performance (Nielsen, 2017).

According to Lebas & Euske (2016) firm performance is a set of financial and non-financial indicators which offer information on the degree of achievement of objectives and results. In this study, organizational performance has been measured using three indicator variables: profitability, return on assets (ROA), and sales growth. Furthermore, available literature shows the use of these indicators to measure changes in knowledge, competencies, and learning of organizations. Shrader (2016) has adopted sales growth; Goerzen & Beamish (2015), ROA; and Dussauge, Garrette, & Mitchell, (2017), increase in market share. Therefore, the averages of the three indicators which are the observable variables serve to gauge the firm performance.

2.4 Conceptual Framework



A conceptual framework is a tool used to guide an inquiry; it is a set of ideas used to structure the research, a sort of a map (Kothari *et al.*, 2012). It is therefore, a presentation of a researcher's own position on the problem and gives the direction to the study. The concepts under study in this research were the marketing alliance as the independent variable and firm performance as the dependent variable. The study's questionnaire was measured on a seven-point Likert scale using six different statements. The firm performance was measured using return on assets, sales and profitability.

3. Methodology

3.1 Study population and Sampling

The study conducted a survey on microfinance institutions in Rwanda. The research considered all of the five provinces of Rwanda. As it is indicated in the report by the Ministry of Finance and Economic Planning of August 2013, 416 SACCOs (microfinance at 3 level) and 75 MFIs were registered, and this makes a total of 491, which was the research population for this study. Slovene's sampling formula (Rosenstein, 2019) was used to determine the sample size

$$n = \frac{N}{1 + Ne^2} = \frac{419}{1 + 419 * 0.05^2} \approx 220$$

Where:

n = Sample size

N = total population = 491

e = Level of confidence or error margin = 0.05

The researcher used random sampling method to give equal opportunity to all MFIs in the population.

3.2 Variables measurement procedures

Primary data was obtained using a structured questionnaire made of seven-point Likert scale where 1=strongly disagree,

2=disagree, 3 more/less disagree, 4= undecided, 5=more/less agree, 6=agree and 7=strongly disagree. This was used to measure the independent variable of marketing alliance. Firm performance was measured as the average of the Return on Assets (ROA), Return on Sales (ROS) and profitability. The respondents were managers/CEOs of the selected MFIs, and ratios were provided by respondents.

3.3 Data processing and analysis

The study used quantitative method and Structural Equation Modelling (SEM) for data analysis. It is a combination of factor analysis and regression or path analysis (Boateng, 2018). The researcher preferred to use SEM because it is a popular method across disciplines and increasingly is a 'must' for researchers in the social sciences (Ling & Ling, 2017). In addition, many other studies in strategic alliances have used SEM, Plazibat and Davor (2013), Jabar, Othman, and Idris (2011). The popularity of SEM is based on its role in testing complete theories and concepts.

However, before building the model, preliminary model analyses were conducted to allow the data and the model to meet the assumptions for SEM. The basic assumptions for a standard SEM model include, sample size, interval scale for data, multivariate normality distribution, model identification, and uncorrelated error terms. The procedure involved four basic steps that were followed. Step one involved building the path diagram in the SEM builder interface. In this, the measurement model and the structural model were drawn as a path diagram connecting latent variables and the observed variables. Step two involved testing the reliability and validity of the measurement model. The reliability of the model was tested using Cronbach's alpha test for reliability.

The third step involved model estimation. The Maximum Likelihood (ML) method was used because there were no

missing variables in the data. The last step involved examining the results and drawing up conclusion. Different statistical measures were used to help draw the conclusions on model fit and on the hypothesis. The model was specified as below:
 $performance = \beta_0 + \beta_1 * ma + \epsilon$
 Where $\beta_0 = constant$
 $\beta_1 = regression\ coefficient$

$ma = marketing\ alliance$
 $\epsilon = error\ term$

4. Results and Discussion

4.1 Respondents' Characteristics

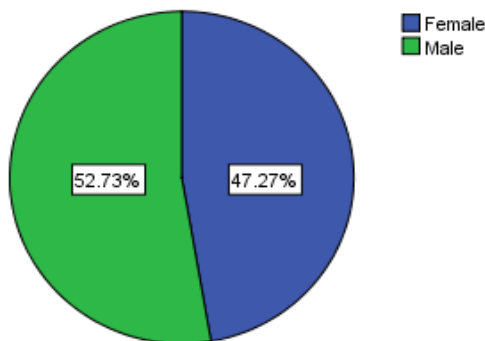


Figure 1: Gender of the respondents (Source: Researcher, 2020)

According to Figure 1, shows that 47.27% of the respondents were female and 53.73% were male. Although, there is a little

difference of 6% percentage, generally these results indicate that the sample was reasonably represented in terms of gender.

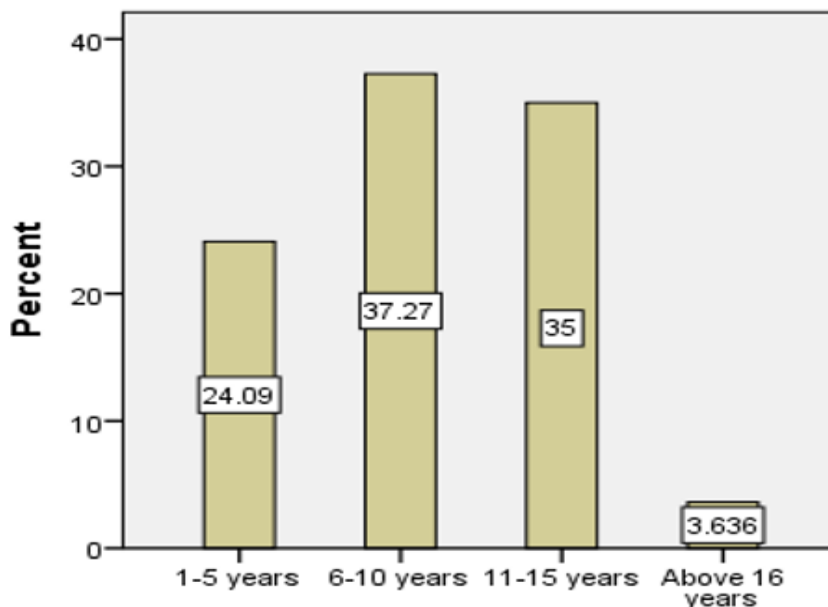


Figure 2: Working experience of respondents (Source: Researcher, 2020)

Figure 2 shows that 24.09% of respondents had less than 5 years of work experience, 37.27% had between 6 and 10

years of experience, and 3.64 % had above of 15 years of work experience.

Table 1: Respondents' level of education

Education level	Frequency (N=220)	Percentage	Cumulative percentage
Secondary level	89	40.45	40.45
Bachelor level	102	46.36	86.82
Masters level	29	13.18	100.00

Table 1 shows that 40.45% of respondents were of secondary/high school level, followed by bachelor level 46.36% and masters level 13.18%. These results suggest that

the majority of respondents, who were CEOs and managers of microfinance and SACCOs, had attained the university level.

Table 2: Institutions age

MFI age	Frequency N= 220	Percentage	Cumulative percentage
Under 5	33	15.00	15.00
Between 6 and 10	101	45.91	60.91
Between 11 and 15	67	30.45	91.36
Between 16 and 20	16	7.27	98.64
Above 21	3	1.36	100.00
Total	220	100.00	100.00

Table 2 shows that 15% of visited MFIs were under five years old. 45.91% were between six and ten years old, 30.45% were

7 between sixteen and twenty years and 1.36 % were above 21 years old.

Table 3: Institution's size

Number of employees	Frequency (N=220)	Percentage	Cumulative percentage
under 50			
	8	3.64	3.64
Between 51 and 100			
	67	30.45	34.09
Between 101 and 150			
	75	34.09	68.18
Between 151 and 200			
	42	19.09	87.27
Above 201			
	28	12.73	100.00
Total	220	100.00	

The institution size is based on the number of employees. Table 3 shows the majority of visited MFIs (34.09 %) had between 101 and 150 number of employees. The table also shows that only 3.64% of visited institutions had under 50 percentage of employees. Cumulatively, 68.18% of the firms were having below 150 employees. As expected, these institutions fall under microfinance.

4.2 Descriptive Statistics

The analysis of descriptive data preceded the analysis of inferential data. Mean, Standard Deviation (SD), Variance, Skewness and Kurtosis. The descriptive statistics for all the constructs are shown in Table 4.

Table 4: Descriptive Statistics

stats	mean	sd	variance	cv	skewness	kurtosis
Market1	5.250	1.326	1.759	0.253	-0.313	2.160
Market2	5.327	1.444	2.084	0.271	-0.456	2.256
Market3	5.423	1.166	1.359	0.215	-0.384	2.790
StratM~1	5.186	1.546	2.390	0.298	-0.514	2.158
StratMgt2	5.195	1.425	2.030	0.274	-0.338	2.085
StratMgt3	5.386	1.355	1.836	0.252	-0.537	2.553
StratMgt4	5.686	1.173	1.376	0.206	-0.648	2.704
StratMgt5	5.682	1.076	1.159	0.189	-0.509	2.799
StratMgt6	5.609	1.187	1.408	0.212	-0.589	2.678
ROA	0.009	0.136	0.018	14.677	0.171	3.380
Sales	0.413	0.218	0.047	0.527	-1.012	3.431
Profitability	0.131	0.215	0.046	1.638	1.901	6.323

Sd= standard deviation, cv=coefficient of variation

Table 4 presents the descriptive statistics including the mean, standard deviation, variance, coefficient of variation, skewness and kurtosis for all the constructs used in the study. According to Paoletta (2018), the acceptable range for skewness is between -3 and +3 while for kurtosis is between -10 and +10 whenever using the SEM technique. This showed that the values obtained in this research were within the acceptable threshold in terms of skewness and kurtosis.

4.3 Model Analysis

This research used the structural equation modelling technique to achieve the research objectives. However, before building the model, preliminary model analyses were conducted to allow the data, and the model to meet the assumptions for SEM. The basic assumptions for a standard SEM model include, sample size, interval scale for data, multivariate normality distribution, model identification, and uncorrelated error terms. The assumption on sample size holds that the sample should be large enough, at least more than 200, for structural equation modelling. This research was able to meet this requirement with a sample size of 220 observations. Similarly, the data is required to have an interval scale. According to Jackson (2015), if Likert scale is symmetric and equidistance, it can sufficiently approximate an interval scale. The use of Likert scale with seven items enabled the researcher to meet this requirement. Similarly, the errors terms are assumed to be uncorrelated since the data is not time series nor related to time. The test for multivariate normality was conducted using Doornik-Hansen test whose results ($\chi^2 =$

149.736, $p < 0.05$) were significant, hence supporting the normality assumption for the data. According to Biswas, Giri & Srivastava, (2006), for a model to achieve identification, the number of distinct sample moments should be greater than or equal to the number of distinct parameters to be estimated (which gives the degrees of freedom, d.f.). If they are equal, the model is considered to be just identified. If the number of distinct sample moments is less than the number of distinct parameters to be estimated, then the model is unidentified. In this case, looking at the output of the estimation, the model was over-identified since d.f. were computed in each estimation. According to Schermelleh-Engel, Moosbrugger and Müller (2003) estimations in SEM can only be done if the model is just identified or over identified. Further, they note that there exists no specific statistics to ensure that a structural equation model fits. They specifically recommend that the researcher should keep checking results against the χ^2 results which provide the level of significance and an idea of whether the model fits the empirical data. In addition, other goodness of fit statistics exists that can be used. With this knowledge, the researcher was able to proceed with the analysis.

4.3.1 Measurement model: validity and reliability

As recommended by Hooper, Coughlan and Mullen (2008), before any structural equation modelling is conducted, the measurement model should be tested for reliability of the observable constructs. This was done using the Cronbach alpha reliability test presented in Table.

Table 5: Cronbach alpha Reliability test

Item	Obs	Sign	average			alpha
			item-test correlation	item-rest correlation	interitem covariance	
Market1	220	+	0.387	0.265	0.220	0.702
Market2	220	+	0.355	0.219	0.222	0.707
Market3	220	+	0.354	0.246	0.224	0.704
StratMgt1	220	+	0.388	0.244	0.218	0.705
StratMgt2	220	+	0.493	0.373	0.208	0.691
StratMgt3	220	+	0.454	0.336	0.213	0.695
StratMgt4	220	+	0.282	0.168	0.230	0.710
StratMgt5	220	+	0.306	0.203	0.229	0.707
StratMgt6	220	+	0.215	0.098	0.236	0.716
Test scale					0.217	0.712

The cut point for reliability is an alpha equal to or greater than 0.7 (Esposito, *et al.*, 2010). According to Table 5, the lowest alpha is 0.688 which is close to the cut-off point and therefore retained. In fact, the overall test scale was 0.712 that provided enough reliability to retain the measurement scale and all the items in the scale. Further, factor analysis was conducted to corroborate this and determine the factors to retain for modelling.

However, as suggested by Kline (2014), before any factor analysis is conducted the researcher should conduct factor test which shows whether there is a need for a factor analysis or not. In this research, factor test was conducted using the Bartlett test of sphericity and Kaiser-Meyer-Olkin (KMO) test. The results showed that the Bertlett test was significant ($\chi^2 = 539.22$, $p < 0.05$) while the KMO showed an overall score of 0.6775. According to Denis (2015) factorability is achievable if the Bertlet test is significant and if the KMO test is greater

than 0.6. Hence, the research data passed this test, which led to the next level of factor analysis.

Factor analysis was first conducted using Principal Component Analysis (PCA) method. After the results, factor loading was conducted as well as factor rotation using orthography method. The rotated factors were then sorted from highest to lowest using the sort command in STATA.

4.3.2 Findings and Results

The objective that guided this research was to assess the effect of marketing alliances on the Microfinance Institutions' performance. Associated null hypothesis was formulated as follows:

H₀: There is no significant influence of marketing alliances on the Microfinance institutions' performance.

Table 7: Goodness-of-fit (Marketing Alliance)

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. estat gof, stats(rm chi2)
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Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(33)	52.113	model vs. saturated
p > chi2	0.000	
chi2_bs(45)	112.151	baseline vs. saturated
p > chi2	0.000	
Population error		
RMSEA	0.051	Root mean squared error of approximation
90% CI, lower bound	0.021	
upper bound	0.077	
pclose	0.437	Probability RMSEA <= 0.05

Table 6 reveal that the regression coefficients for marketing alliance and strategic alliance management are significant with all the p-values ($p < 0.05$) meeting the cut-off point of 0.05. This shows that the marketing alliance has a significant influence on the performance of MFIs in Rwanda as mediated by the strategic alliance management. In addition, Table 7 shows that the model was also significant ($\chi^2 = 52.113$, $p < 0.05$), with a reasonable close fit model since RMSEA value is < 0.08 and pclose was also not significant ($p = 0.437$).

5. Conclusion and Recommendations

Alliances are widespread in today's business landscape. In the face of growing competition, the firms are searching for ways

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to minimize the risks and increase profitability. The results showed that in general marketing alliance contributes positively to microfinance's performance compared to organizations without alliances. Furthermore, marketing alliances can be a diversifying force, helping the firm gain access to new markets, new innovation, products and services. It is recommended that the government should encourage healthy marketing alliance even in other service organizations as a way of improving their performance, and growing the country's economy. The government could protect and create a conducive environment in terms of national policies and regulations. The study further recommends that business competitors could embrace strategies that can enhance market efficiency, rather than bringing market frictions and imperfections.

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