

Determinants and Impact of Enterprise Risk Management on Sustainability of Microfinance Banks in Nigeria: A Structural Equation Modelling Approach

Alero Theodora Obanor, Ph.D.

Walden University, USA

Abstract

This paper investigates institutional factors affecting enterprise risk management (ERM) practice microfinance banks in Nigeria, as well as the impact of ERM on organizational sustainability. Survey research design was adopted for the study, and data was sourced through structured questionnaire from senior accounting/ finance staff of one hundred and seventy (170) microfinance banks based in Lagos State Nigeria. Result from the analysis of survey data obtained from 104 microfinance banks in Lagos, Nigeria, using structural equation modelling (SEM) and least square regression, suggests that Company's customers exert the greatest influence on ERM practice, followed by Company's shareholders. Other institutional factors such as Government regulations, Financial institutions/ Fund Providers, Competitors' activities, Multinational organizations, and Recommendations of Consultants/ Professional bodies have no significant impact on ERM practice of microfinance banks in Nigeria (research objective one). Result also shows that although the impact of ERM organizational sustainability is negligible and negative, the result is not statistically significant. In other words, ERM practice has no significant impact on sustainability of Microfinance banks in Nigeria (research objective two). Whilst the extensive implementation of ERM has the potential to enhance organizational sustainability, it appears that the inability of ERM practice to significantly engender organizational sustainability is not unconnected to the generally shallow implementation level of ERM. The paper draws attention to the need for microfinance banks to step up the robustness and intensity of implementing ERM for them to realize the ensuing benefits. The study recommends that organizations should concentrate on proactively and deliberately managing risks arising from its core competencies.

Keywords: *enterprise risk management; microfinance banks; organizational sustainability; institutional factors; Nigerian Banks*

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I. Introduction

Enterprise risk Management represents a burning issue among organizations in different nations of the world. This is because the ability of an organization to continue to operate into the foreseeable future depends on managing risks and uncertainties and converting the downside of risks to upside risks to create competitive advantage that will ensure organizational survival. The discourse on risk management is particularly topical among financial institutions because they are exposed to all kinds of risks including strategic risk, operational risk, security risk, reputational risk, legal risk, money laundering risk, and cross border risks (Ajibo, 2015; Bailey, 2019). Meanwhile, financial institutions cannot afford to collapse, as such eventuality could create systemic risks, which could weaken not only the financial system but the economic system of a nation at large (Mitchell, Fisher, Hastings, Silverman & Wallen, 2010). Thus, it becomes important for financial institutions to emplace adequate risk management processes and structures for them to operate as going concern, and to effectively perform their roles of mediating between the deficit and surplus unit of the financial system.

Microfinance banks occupy a strategic position in the value chain of any financial system, as they make finance more accessible to the financially disadvantaged who may be unable to access finance from conventional deposit money banks due to stringent conditions for obtaining loans and advances (Sanusi, 2012). There is therefore no denying that microfinance banks are critical for realizing financial inclusion goals in the nations of the world, especially in developing countries.

In spite of the well acknowledged relevance of ERM to organizational survival in the financial service sector, studies on risk management practice of microfinance institutions are limited in comparison to commercial banks and other non-bank financial institutions. Most of the studies on ERM emanate from developed countries (e.g. Lam, 2014; Tursoy, 2018). Studies on ERM of microfinance banks are scanty in Nigeria, as most studies have focused on commercial banks (e.g. Kolapo, Ayeni & Oke, 2012; Oyewo, 2014;

Soyemi, Ogunleye & Akinpelu, 2014). Knowledge is limited on the factors influencing ERM of microfinance bank in the Nigerian context. As microfinance banks would typically invest resources to implement ERM initiatives, little is known on the extent to which this has impacted organizational sustainability. In the context of this study, organizational sustainability is the ability of microfinance banks to continue to operate in the foreseeable future, as the industry is replete with history of microfinance banks that have failed shortly after commencing operations (Fadun, 2013).

According to the Central Bank of Nigeria (2020), Nigeria currently has eight hundred and eighty-two (882) licensed microfinance banks in Nigeria as at September 20, 2018. With such a sizeable and growing number of microfinance banks in Nigeria contributing to microfinancing in the country, a study on the risk management practice of microfinance banks in Nigeria is considered topical, timely and important, as such knowledge would be important in addressing some of the challenges facing microfinance banks in Nigeria, with a view towards repositioning them for competitiveness and effectiveness of service delivery

With these thoughts in mind, the objectives of the paper are to (i) Assess institutional factors affecting ERM practice; and (ii) Evaluate the impact of ERM on organizational sustainability. Result from the analysis of survey data obtained from 104 microfinance banks in Lagos, Nigeria, using structural equation modelling (SEM) and least square regression, suggests that Company's customers exert the greatest influence on ERM practice, followed by Company's shareholders. Other institutional factors such as Government regulations, Financial institutions/ Fund Providers, Competitors' activities, Multinational organizations, and Recommendations of Consultants/ Professional bodies have no significant impact on ERM practice of microfinance banks in Nigeria (research objective one). Result also shows that although the impact of ERM on organizational sustainability is negligible and negative, the result is not statistically significant. In other words, ERM practice has no significant impact on sustainability of Microfinance banks in Nigeria (research objective two). Whilst the extensive implementation of ERM has the potential to enhance organizational sustainability, it appears that the inability of ERM practice to significantly engender organizational sustainability is not unconnected to the generally shallow implementation level of ERM. The paper draws attention to the need for microfinance banks to step up the robustness and intensity of implementing ERM for them to realize the ensuing benefits. It is recommended that organizations should concentrate on proactively and deliberately managing risks arising from its core competencies.

The remaining part of the paper is structured into four (sections 2 to 5). Section 2 covers literature review. Methodology is explained in section 3, followed by presentation of results and discussion in section 4. The paper is concluded in Section 5.

II. Literature Review

The risks inherent in the management of funds by financial institutions varies in type, duration and severity (Daud, Haron & Ibrahim, 2011). This brings to fore the need for financial institutions, including microfinance banks, to evolve various strategies for managing risks. Some of the risks include Strategic risk, Operational risk, Security risk, Reputational risk, Legal risk, Money laundering risk, and Cross Border risks, among others (Gatzert & Kolb, 2013).

Strategic risk is the current and prospective impact on earnings or capital arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes (Owolabi, 2010). Strategic risk is a function of the compatibility of an organization's strategic goals, the business strategies developed to achieve those goals, the resources deployed to achieve those goals, the resources deployed against these goals, and the quality of implementation (Ozigbo & Orife, 2011; Committee of Sponsoring Organizations of the Treadway Commission, COSO, 2017).

Operational risks take the form of inaccurate processing of transactions, unenforceability of contracts, compromises in data integrity, data privacy and confidentiality. Sarlak and Hastiani (2010) referred to operational risk as transaction risk and explained that it is the current and prospective risk to earnings and capital arising from fraud, error, and the inability to deliver products or services, maintain a competitive position, and manage information. A high level of transaction risk may exist with internet banking products, particularly if those lines of business are not adequately planned, implemented and monitored (Moghalu, 2011).

Security risk refers to the unauthorized access or intrusion to a bank's information systems and transactions. Unauthorized access to customers' account and other confidential information are inherent danger when deploying Internet banking facilities. Reputational risk is the current and prospective impact on earnings and capital arising from negative public opinion and it affects the institution's ability to establish new relationships or services (Socol, 2011). Reputational risk may expose institution to litigation, financial loss, or a decline in its customer base.

As there are myriads of risks that financial institutions are exposed to, there are several approaches for managing risks, which include but are not limited to (Hoyt & Liebenberg, 2011; Swagger, 2015): Top Management/ CEO commitment (tone and messaging from the top); Risk policies and/or mission statements,

including adapting any company risk or audit committee charter to incorporate ERM; Existence of an ERM Team in charge of managing the risk; Gathering risks across the organization by encouraging all employees to report risks; Adoption or development of a risk framework; Incorporating risk into appropriate employees' job descriptions and responsibilities; Incorporating risk into the budgeting function; Integrating risk identification and assessment into the strategy of the organization; Sensitizing, training and developing staff on enterprise risk; and (x) Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks.

As there are various stakeholders with, sometimes, conflicting interest in an organization, there could be various factors which may affect the ERM of financial institutions (Obinna,2012). The theory of institutional isomorphism suggests that a collection of factors may exert on the management practice of organizations exposed to similar environmental conditions, such that the structure or management practice for such organizations are similar (Jabbour& Abdel-Kader, 2015). The institutional theory adduced three isomorphic factors which may exert on organisations to be similar, namely: normative, mimetic and coercive factors (Manab, Othman &Kassim, 2012). The Normative factors stem from stakeholder groups or organizations that may influence the practice of an organization by making recommendations on best practice. Consultants, professionals or experts that an organization depends on for assistance and technical guidance may normatively influence the management practice of organizations (Gomes & Khan, 2011).

Mimetic factors capture the effect that other organizations which an organization emulates, mimics or tries to resemble affect organizational practice. Mimetic influence may come from industry leaders, leading competitors or other organizations controlled by the same Management team (such as parent companies, subsidiaries or associate companies). Coercive factors come from external pressure— Other organizations, stakeholder or institutions may be able to exert pressure on an organization because they wield such influence or are in a position to coerce or force an organizationto impement an initiative or adopt a practice (Hong, Huang & Wu, 2014).

The contextualization of the institutional theory of isomorphism to this study implies that the ERM practice of microfinance banks may be similar because it may be influenced by a combination of normative, mimetic and coercive factors. Government regulations through the Central Bank of Nigeria, Company's shareholders mandates and requirements of Financial institutions/ Fund Providers may force or coerce microfinance banks toimplement ERM (i.e. influence of coercive institutional factors). The desire to satisfy customersto survive competition may also force microfinance banks to implement robust ERM practice (coercive institutional factors).

The need toembrace best practice as implemented by Multinational financial institutions and competitors may affect ERM practice of microfinance banks (Mimetic institutional factors). The recommendations of experts, professional bodies and consultants that partner with microfinance banks may also shape ERM practice (normative institutional factors). Prior studies have invoked the institutional theory to explain similarity in management practice (e.g. Ajibolade,2013; Burns&Scapens,2000).

Scholars have suggested that the extensive implementation of ERP can sustain organizational performance (e.g.Dabari&. Saidin, 2015; Giovannoni, Quarchioni, &Riccaboni, 2016).This is hinged on the argument that ERM encourages a proactive approach to riskmanagement. Since the risks can be anticipated, control measures to minimize the risks can be implemented in advance. Further, as risk has its upside, proactively managing risks as advocated by ERMenables an organization to foresee opportunities inherent in risks, such that the organizationcan take a position which actualizes the benefits or upside of the risk. ERM also assist an organization in refraining from actions or activities that invokes the negative side of risks which eventually results into losses (Hartlage, 2012). Taken together, by avoiding activities or emplacing mitigating measures that blocks the negative side of risks on one hand, and instituting measures that cash in on the benefits of the upside of risks, organizations can go beyond maintaining shareholders value to crating and sustaining value for stakeholders, thereby enhancing organizational sustainability.

III. Methodology

3.1 Research Design

The study adopted a survey research design. The population of the study is microfinance banks operating in Nigeria. According to the Central Bank of Nigeria, there are eight hundred and eighty-two (882) licensed microfinance banks in Nigeria spread across the thirty-six states of Nigeria. Considering the large population size, the study focused on the licensed microfinance banks operating in Lagos Nigeria. According to the Central Bank of Nigeria, there are one hundred and seventy (170) microfinance banks in Lagos. The one hundred and seventy (170) microfinance banks in Lagos was therefore taken as the sample of the study.

A copy of the questionnaire was dispatched to each of the 170 microfinance banks, with an introduction letter addressed to senior Accounting/ finance personnel to complete the questionnaire on behalf of their organizations.

3.2 Measurement of Variables

The variables of the study are ERM practice, institutional factors and organizational sustainability. These were measured as follows:

(a) ERM practice: this was measured using ten items derived from existing literature (e.g.Hartlage, 2012; Manab, Othman &Kassim, 2012). On a 5 point scale of 1 (not applied) to 5 (very extensive), respondents were requested to rate the extent to a list of ERM techniques are applied to manage risk in their organizations, namely: (i) Top Management/ CEO commitment (tone and messaging from the top); (ii) Risk policies and/or mission statements, including adapting any company risk or audit committee charter to incorporate ERM; (iii) Existence of an ERM Team in charge of managing the risk; (iv) Gathering risks across the organization by encouraging all employees to report risks; (v) Adoption or development of a risk framework; (vi) Incorporating risk into appropriate employees’ job descriptions and responsibilities; (vii) Incorporating risk into the budgeting function; (viii) Integrating risk identification and assessment into the strategy of the organization; (ix) Sensitizing, training and developing staff on enterprise risk; and (x) Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks.

(b) Institutional factors affecting ERM Practice:The institutional factors were derived from the theory of institutional isomorphism. Seven institutional factors spanning normative, mimetic and coercive institutional factors were included namely (Ajibolade,2013) (i) Government regulations; (ii) Company’s shareholders; (iii) Financial institutions/ Fund Providers; (iv) Company’s customers; (v) Competitors’ activities; (vi) Multinational organizations apply the techniques; and (vii) Recommendations of Consultants/ Professional bodies. On a 5-point scale of 1 (Very Low) to 5 (Very High), respondents were requested to indicate the extent to which each of the institutional factors influence ERM practice in their organization

(c) Organizational Sustainability: On a 5-point scale of 1 (Extremely poor) to 5 (Extremely good), respondents were requested to rate the extent to which the performance of their organization has improved in the following seven areas: (i)Return on investment; (ii) Margin on sales; (iii) Capacity utilization; (iv) Customer satisfaction; (v) Product quality; (vi) Development of new products; and (v) Market share. Prior studies have used a similar approach to measure organizational sustainability (e.g.Cadez&Guilding, 2012; Moores& Yuen, 2001).

3.3 Method of Data Analysis

Both descriptive and inferential statistics were applied in data analysis. Frequency counts, percentages analysis, Mean, Median, Mode, standard Deviation and Box plot were used for descriptive analysis. Regression and structural Equation Modeling (SEM) were used for inferential analysis.

Both Exploratory Factor analysis (Principal Component Analysis, PCA) and confirmatory Factor analysis were applied to examine validity and reliability. A cut off point of 0.30 was used to assess factor loading. SPSS version 23 and STATA 14 software were used to carry out data analysis.

IV. Results And Discussion

4.1 Response Rate and Respondents’ Profile

From the 170 copies administered, 117 copies were retrieved but 13 copies were unsuitable for use because they were not properly completed. This reduced the number of usable copies to 104, representing an effective response rate of 61.17%. The 104 copies were processed for analysis. The profile of respondents and the structure of ERM are presented in Tables 1 to 4.

Table 1: Academic Qualification of Respondents

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|--------------------|
| Valid | First Degree | 79 | 76.0 | 76.0 | 76.0 |
| | Second | 25 | 24.0 | 24.0 | 100 |
| Total | | 104 | 100.0 | | |

In Table 1, more than half of the number of respondents hold a first degree (n = 79, 76%), while 25 (24.0%) of respondents possess a second degree. This suggests that respondents have requisite academic qualifications.

Table 2: Job Title of Respondents

| | | Frequency | Percent |
|-------|---|-----------|---------|
| Valid | Director/ Chief Finance Officer/ Chief Risk Officer | 5 | 4.8 |
| | Accountant | 38 | 36.5 |
| | Operations Manager/ Officer | 31 | 29.8 |
| | Internal Auditor/ Internal control Officer | 23 | 22.1 |

| | | |
|--------|-----|-------|
| Others | 7 | 6.7 |
| Total | 104 | 100.0 |

From the result of Table 2, 5 (4.8%) of the respondents bear the title of Director/ Chief Finance Officer/ Chief Risk Officer, 38 (36.5%) are Accountants, 31 (29.8%) are Operations Manager/ Officer, 23 (22.1%) are Internal Auditors/ Internal control Officers, while 7 (6.7%) bear carry other job titles including business development personnel. This result shows that various officers/ personnel involved in risk management in financial institutions participated in the survey. Thus, the views obtained cuts across different job functions within risk management activities.

Table 3: Length of work experience of Respondents

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-----------|---------|---------------|--------------------|
| Valid Less than 3yrs | 11 | 10.3 | 10.3 | 10.5 |
| Valid 3-6 yrs | 35 | 33.2 | 33.2 | 44.2 |
| Valid 7-10yrs | 39 | 37.5 | 37.5 | 82.3 |
| Valid Above 10yrs | 20 | 19.0 | 19.0 | 100.0 |
| Total | 104 | 100.0 | | |

In Table 3, 46 (11 + 35) respondents representing 43.3% (10.3% + 33.2%) have work experiences within 6years, 39 (37.5%) have 7-10years work experience, and 20 (19%) have above 10 years work experience. This suggest that respondents should have experiential knowledge on the subject, which should help in eliciting valid response.

Table 4: Existence of Risk Management Department

| | Frequency | Percent |
|--|-----------|---------|
| Presence of risk Management department | 81 | 77.9 |
| Absence of risk Management department | 23 | 22.1 |
| Total | 104 | 100.0 |

From the result of Table 4, 81 firms representing 77.9% have a department/unit within the organization specifically tasked with managing risk across your organization. This contrasts sharply against 23 (22.1%) firms having no such department. Considering that most of the survey firms have a department responsible for risk management, it is conceivable that financial institutions are proactive and deliberate about risk management. This could be a fall out from compliance with best practice on corporate governance as all microfinance banks are regulated by the Central Bank of Nigeria (CBN).

4.2 Results from Factor Analysis

To ensure that the items measuring the variables of the study (i.e. Enterprise Risk Management Practice, Institutional Factors Affecting Enterprise Risk Management, and Organizational sustainability) validly and reliably measure the variables, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted. A threshold of 0.30 was used as the cut off point for factor loading. The result of EFA and CFA for each of the variables is presented as follows:

4.2.1 Factor analysis Result for Enterprise Risk Management Practice

(a) Exploratory Factor Analysis

Result of EFA for ERM practice is presented in Tables 5a to 5d and Figure 1

Table 5a: KMO and Bartlett's Test for ERM Practice

| | |
|--|--------------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .708 |
| Bartlett's Test of Sphericity | Approx. Chi-Square |
| | 411.774 |
| | df |
| | 45 |
| | Sig. |
| | .000 |

Table 5b:Communalities for ERM Practice

| | Initial | Extraction |
|--|---------|------------|
| Top Management/ CEO commitment (tone and messaging from the top) | 1.000 | .357 |
| Risk policies and/or mission statements, including adapting any company risk or audit committee charter to incorporate ERM | 1.000 | .624 |
| Existence of an ERM Team in charge of managing the risk | 1.000 | .661 |

| | | |
|--|-------|------|
| Gathering risks across the organization by encouraging all employees to report risks | 1.000 | .653 |
| Adoption or development of a risk framework | 1.000 | .819 |
| Incorporating risk into appropriate employees' job descriptions and responsibilities | 1.000 | .759 |
| Incorporating risk into the budgeting function | 1.000 | .764 |
| Integrating risk identification and assessment into the strategy of the organization | 1.000 | .754 |
| Sensitizing, training and developing staff on enterprise risk | 1.000 | .552 |
| Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks | 1.000 | .722 |

Extraction Method: Principal Component Analysis.

Table 5c: Total Variance Explained for ERM Practice

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.853 | 38.527 | 38.527 | 3.853 | 38.527 | 38.527 |
| 2 | 1.674 | 16.739 | 55.266 | 1.674 | 16.739 | 55.266 |
| 3 | 1.140 | 11.396 | 66.662 | 1.140 | 11.396 | 66.662 |
| 4 | .955 | 9.555 | 76.216 | | | |
| 5 | .657 | 6.566 | 82.782 | | | |
| 6 | .532 | 5.320 | 88.102 | | | |
| 7 | .422 | 4.218 | 92.321 | | | |
| 8 | .350 | 3.495 | 95.816 | | | |
| 9 | .239 | 2.389 | 98.205 | | | |
| 10 | .179 | 1.795 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 5d: Component Matrix^a for ERM Practice

| | Component | | |
|--|-----------|-------|-------|
| | 1 | 2 | 3 |
| Top Management/ CEO commitment (tone and messaging from the top) | .578 | -.113 | .100 |
| Risk policies and/or mission statements, including adapting any company risk or audit committee charter to incorporate ERM | .712 | .261 | .223 |
| Existence of an ERM Team in charge of managing the risk | .565 | -.493 | .315 |
| Gathering risks across the organization by encouraging all employees to report risks | .569 | -.388 | -.423 |
| Adoption or development of a risk framework | .677 | -.586 | -.132 |
| Incorporating risk into appropriate employees' job descriptions and responsibilities | .762 | .168 | -.387 |
| Incorporating risk into the budgeting function | .680 | .347 | -.425 |
| Integrating risk identification and assessment into the strategy of the organization | .727 | -.047 | .473 |
| Sensitizing, training and developing staff on enterprise risk | .446 | .362 | .471 |
| Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks | .374 | .757 | -.091 |

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

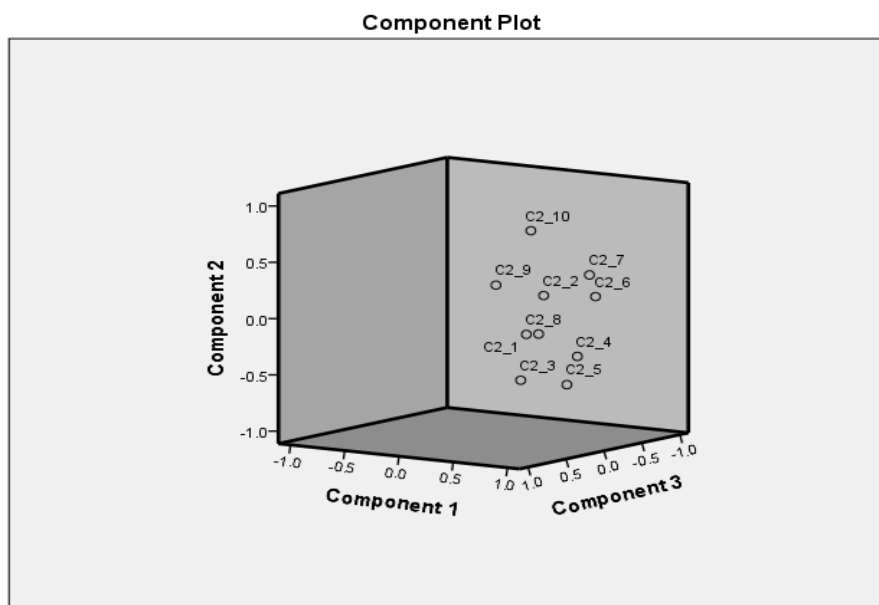


Figure 1: Component Plot for ERM Practice

In Table 5a, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy coefficient of 0.708 establishes that the variable was reliably measured, as it is above the recommended minimum of 0.60. The p value of the Bartlett's Test of Sphericity is also statistically significant at 5% ($p = .000 \leq .05$), thus establishing the factorability of the variable. the Table of communalities (Table 5b) shows that a higher percentage of the items measuring the variable was extracted. The total variance explained generated three components (Table 5c), explaining a variance of 66.662% altogether. In component 1 explaining 38.527% of the total variance, all the ten items measuring ERM practice loaded strongly above 0.30, implying that they are all valid measures of ERM practice (Table 5d). The visual presentation of the factor loading across the components is presented in figure 1.

(b) Confirmatory Factor Analysis

To subject the factors to a more rigorous test, CFA was employed, and the result is presented in Table 6 and Figure 2

Table 6: Result of confirmatory Factor analysis on ERM Practice

| | OIM | | | | | |
|-------------|----------|---------------|-------|-------|----------------------|----------|
| | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] | |
| ----- | | | | | | |
| Measurement | | | | | | |
| ERM1 <- | | | | | | |
| L1 | 1 | (constrained) | | | | |
| _cons | 3.913462 | .0943196 | 41.49 | 0.000 | 3.728599 | 4.098325 |
| ----- | | | | | | |
| ERM2 <- | | | | | | |
| L1 | .8277927 | .1796779 | 4.61 | 0.000 | .4756305 | 1.179955 |
| _cons | 4.288462 | .0633056 | 67.74 | 0.000 | 4.164385 | 4.412538 |
| ----- | | | | | | |
| ERM3 <- | | | | | | |
| L1 | .6790821 | .1825947 | 3.72 | 0.000 | .3212031 | 1.036961 |
| _cons | 4.346154 | .0703557 | 61.77 | 0.000 | 4.208259 | 4.484049 |
| ----- | | | | | | |
| ERM4 <- | | | | | | |
| L1 | .9050862 | .2381729 | 3.80 | 0.000 | .4382758 | 1.371897 |
| _cons | 3.980769 | .0891495 | 44.65 | 0.000 | 3.806039 | 4.155499 |
| ----- | | | | | | |
| ERM5 <- | | | | | | |
| L1 | .9782138 | .2257172 | 4.33 | 0.000 | .5358161 | 1.420611 |
| _cons | 4.269231 | .0795591 | 53.66 | 0.000 | 4.113298 | 4.425164 |
| ----- | | | | | | |
| ERM6 <- | | | | | | |
| L1 | 1.311131 | .2754155 | 4.76 | 0.000 | .7715055 | 1.851115 |
| _cons | 3.682692 | .0884034 | 41.66 | 0.000 | 3.509425 | 3.85596 |
| ----- | | | | | | |
| ERM7 <- | | | | | | |
| L1 | 1.294917 | .2934793 | 4.41 | 0.000 | .7197078 | 1.870126 |
| _cons | 3.596154 | .0994802 | 36.15 | 0.000 | 3.401176 | 3.791131 |
| ----- | | | | | | |
| ERM8 <- | | | | | | |
| L1 | .9822485 | .2074704 | 4.73 | 0.000 | .575614 | 1.388883 |
| _cons | 3.971154 | .073803 | 53.81 | 0.000 | 3.826503 | 4.115805 |
| ----- | | | | | | |
| ERM9 <- | | | | | | |
| L1 | .4615246 | .1507637 | 3.06 | 0.002 | .1660331 | .757016 |
| _cons | 3.826923 | .0614818 | 62.24 | 0.000 | 3.706421 | 3.947425 |
| ----- | | | | | | |
| ERM10 <- | | | | | | |
| L1 | .7708863 | .2809344 | 2.74 | 0.006 | .220265 | 1.321508 |
| _cons | 3.192308 | .11137 | 28.66 | 0.000 | 2.974027 | 3.410589 |

LR test of model vs. saturated: $\chi^2(35) = 199.86, Prob > \chi^2 = 0.0000$

The result in Table 6 shows that the p values of the items measuring the variable are all statistically significant, implying they reliably measure the variable. the standardized scores of each item is presented in Figure 2.

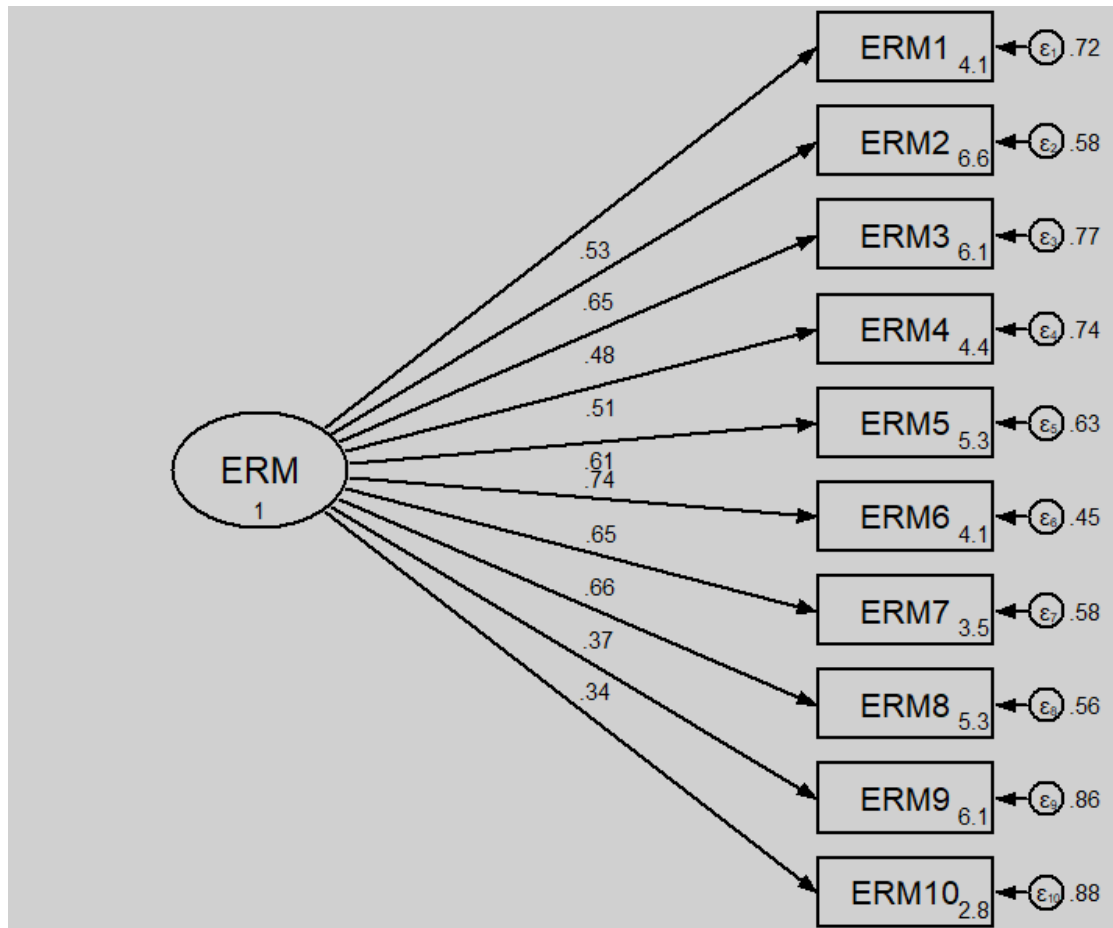


Figure 2: Confirmatory Factor analysis of ERM Practice

From the result in Figure 2, all items loaded above 0.30. This is consistent with the earlier result obtained from EFA. Based on these results, the ten items are therefore retained for analysis as measures of ERM practice.

4.2.2 Factor Analysis Result for Organizational Sustainability

(a) Exploratory Factor Analysis

Result of EFA for Organizational Sustainability is presented in Tables 7a to 7d and Figure 3

Table 7a: KMO and Bartlett's Test for Organizational Sustainability

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .827 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 395.954 |
| | df | 21 |
| | Sig. | .000 |

Table 7b: Communalities for Organizational Sustainability

| | Initial | Extraction |
|-----------------------------|---------|------------|
| Return on investment | 1.000 | .536 |
| Margin on sales | 1.000 | .776 |
| Capacity utilization | 1.000 | .639 |
| Customer satisfaction, | 1.000 | .763 |
| Product quality | 1.000 | .662 |
| Development of new products | 1.000 | .933 |
| Market share of product | 1.000 | .778 |

Extraction Method: Principal Component Analysis.

Table 7c: Total Variance Explained for Organizational Sustainability

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 4.068 | 58.114 | 58.114 | 4.068 | 58.114 | 58.114 |
| 2 | 1.019 | 14.553 | 72.667 | 1.019 | 14.553 | 72.667 |
| 3 | .693 | 9.896 | 82.563 | | | |
| 4 | .413 | 5.906 | 88.469 | | | |
| 5 | .386 | 5.514 | 93.984 | | | |
| 6 | .265 | 3.789 | 97.772 | | | |
| 7 | .156 | 2.228 | 100.000 | | | |

Extraction Method: Principal Component Analysis.

Table 7d: Component Matrix^a for Organizational Sustainability

| | Component | |
|-----------------------------|-----------|-------|
| | 1 | 2 |
| Return on investment | .731 | .034 |
| Margin on sales | .863 | .179 |
| Capacity utilization | .792 | -.107 |
| Customer satisfaction, | .808 | -.333 |
| Product quality | .811 | -.060 |
| Development of new products | .273 | .926 |
| Market share of product | .881 | -.035 |

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

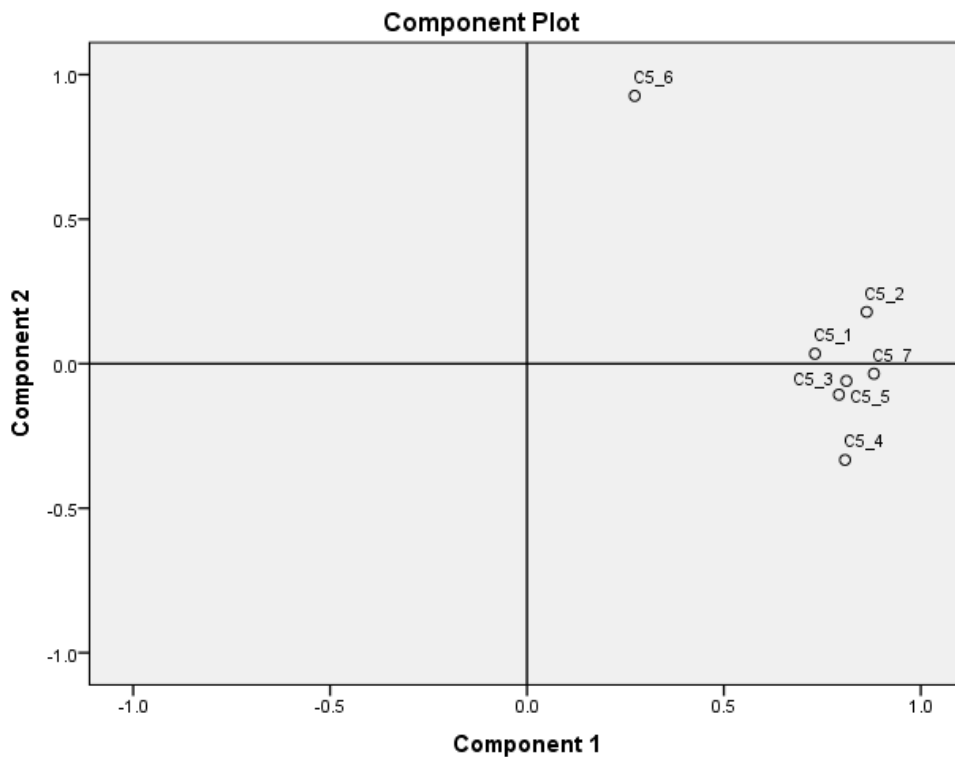


Figure 3: Component Plot for Organizational Sustainability

In Table 7a, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy coefficient of 0.827 establishes that the variable was reliably measured, as it is above the recommended minimum of 0.60. The p value of the Bartlett's Test of Sphericity is also statistically significant at 5% ($p = .000 \leq .05$), thus establishing the factorability of the variable. The Table of communalities (Table 7b) shows that a higher percentage of the items measuring the variable was extracted. The total variance explained generated two components (Table 7c), explaining a variance of 72.667% altogether. In component 1 explaining 58.114% of the total variance, all items measuring organizational sustainability loaded strongly above 0.30, except development of new product (with a factor loading of 0.273) (Table 7d). This implies that all six items, except development of new product, are valid

measures of organizational sustainability. The visual presentation of the factor loading across the components is presented in Figure 3.

(b) Confirmatory Factor Analysis

To subject the factors to a more rigorous test, CFA was employed, and the result is presented in Table 8 and Figure 4

Table 8: Result of Confirmatory Factor Analysis on Organizational Sustainability

| | OIM | | | | | |
|--|-----------------|-----------|-------|-------|----------------------|----------|
| | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] | |
| ----- | | | | | | |
| Measurement | | | | | | |
| OST1 <- | | | | | | |
| OST | 1 (constrained) | | | | | |
| _cons | 3.538462 | .0941356 | 37.59 | 0.000 | 3.353959 | 3.722964 |
| ----- | | | | | | |
| OST2 <- | | | | | | |
| OST | 1.260372 | .1634652 | 7.71 | 0.000 | .9399859 | 1.580758 |
| _cons | 3.490385 | .0942064 | 37.05 | 0.000 | 3.305743 | 3.675026 |
| ----- | | | | | | |
| OST3 <- | | | | | | |
| OST | .8418288 | .1288187 | 6.53 | 0.000 | .5893489 | 1.094309 |
| _cons | 3.432692 | .0729306 | 47.07 | 0.000 | 3.289751 | 3.575634 |
| ----- | | | | | | |
| OST4 <- | | | | | | |
| OST | 1.0303 | .1538908 | 6.70 | 0.000 | .7286796 | 1.33192 |
| _cons | 3.480769 | .0870506 | 39.99 | 0.000 | 3.310153 | 3.651385 |
| ----- | | | | | | |
| OST5 <- | | | | | | |
| OST | .6480264 | .0954806 | 6.79 | 0.000 | .4608879 | .8351649 |
| _cons | 3.778846 | .0543192 | 69.57 | 0.000 | 3.672382 | 3.88531 |
| ----- | | | | | | |
| OST6 <- | | | | | | |
| OST | .2828919 | .1272153 | 2.22 | 0.026 | .0335544 | .5322294 |
| _cons | 3.817308 | .0778364 | 49.04 | 0.000 | 3.664751 | 3.969864 |
| ----- | | | | | | |
| OST7 <- | | | | | | |
| OST | 1.419408 | .1840976 | 7.71 | 0.000 | 1.058583 | 1.780232 |
| _cons | 3.115385 | .1011287 | 30.81 | 0.000 | 2.917176 | 3.313593 |
| ----- | | | | | | |
| LR test of model vs. saturated: chi2(14) = 56.67, Prob > chi2 = 0.0000 | | | | | | |
| ----- | | | | | | |

The result in Table 8 shows that the p values of the items measuring the variable are all statistically significant, implying they reliably measure the variable. the standardized scores of each item is presented in Figure 4.

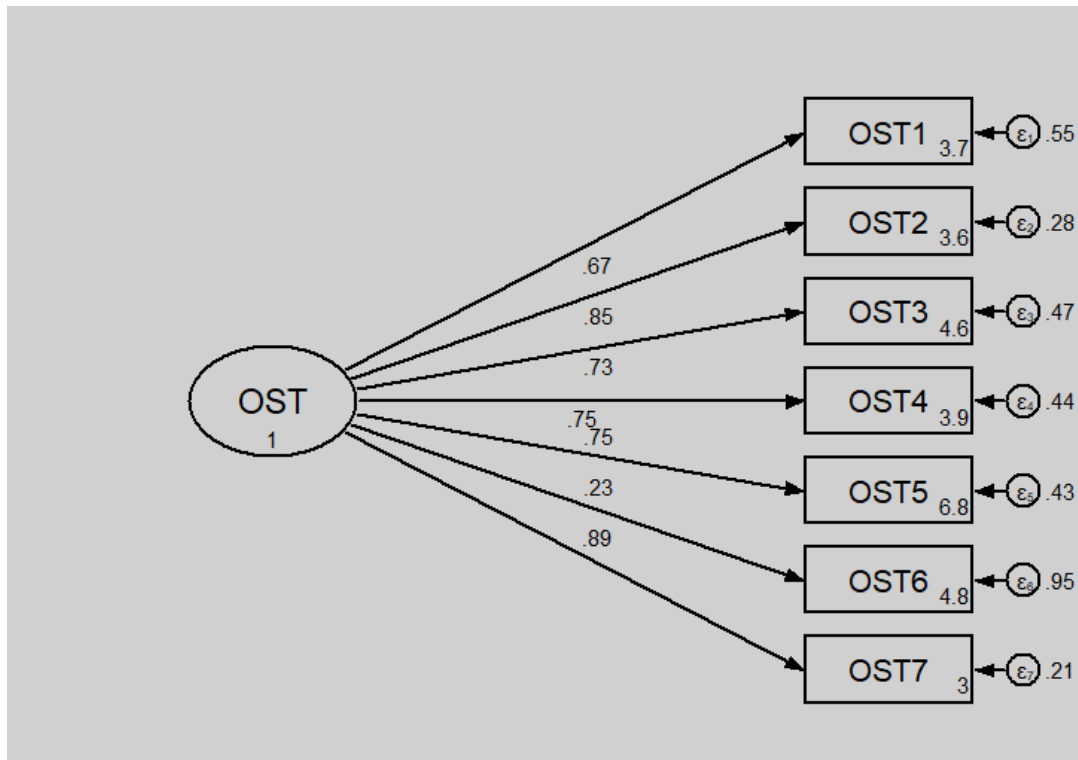


Figure 4: Confirmatory Factor analysis of Organizational sustainability

From the result in Figure 4, all items loaded above 0.30 except development of new product (OST6 = 0.23). This is consistent with the earlier result obtained from EFA. Based on these results, all six items, except development of new products, are therefore retained for analysis as measures of Organizational Sustainability.

4.2.3 Factor Analysis Result for Institutional Factors Affecting ERM Practice

(a) Exploratory Factor Analysis

Result of EFA for Institutional Factors Affecting ERM Practice is presented in Tables 9a to 9d and Figure 5

Table 9a: KMO and Bartlett's Test

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .728 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 324.684 |
| | df | 21 |
| | Sig. | .000 |

Table 9b: Communalities

| | Initial | Extraction |
|---|---------|------------|
| Government regulations | 1.000 | .758 |
| Company's shareholders | 1.000 | .392 |
| Financial institutions/ Fund Providers | 1.000 | .649 |
| Company's customers | 1.000 | .750 |
| Competitors' activities | 1.000 | .737 |
| Multinational organizations apply the techniques | 1.000 | .711 |
| Recommendations of Consultants/ Professional bodies | 1.000 | .796 |

Extraction Method: Principal Component Analysis.

Table 9c: Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.481 | 49.735 | 49.735 | 3.481 | 49.735 | 49.735 |
| 2 | 1.311 | 18.723 | 68.458 | 1.311 | 18.723 | 68.458 |
| 3 | .772 | 11.027 | 79.485 | | | |
| 4 | .540 | 7.719 | 87.204 | | | |
| 5 | .427 | 6.103 | 93.306 | | | |
| 6 | .320 | 4.567 | 97.873 | | | |

| | | | | | |
|---|------|-------|---------|--|--|
| 7 | .149 | 2.127 | 100.000 | | |
|---|------|-------|---------|--|--|

Extraction Method: Principal Component Analysis.

Table 9d: Component Matrix^a

| | Component | |
|---|-----------|-------|
| | 1 | 2 |
| Government regulations | .365 | .790 |
| Company's shareholders | .573 | -.252 |
| Financial institutions/ Fund Providers | .764 | .256 |
| Company's customers | .816 | .289 |
| Competitors' activities | .852 | .105 |
| Multinational organizations apply the techniques | .763 | -.357 |
| Recommendations of Consultants/ Professional bodies | .679 | -.578 |

Extraction Method: Principal Component Analysis.
 a. 2 components extracted.

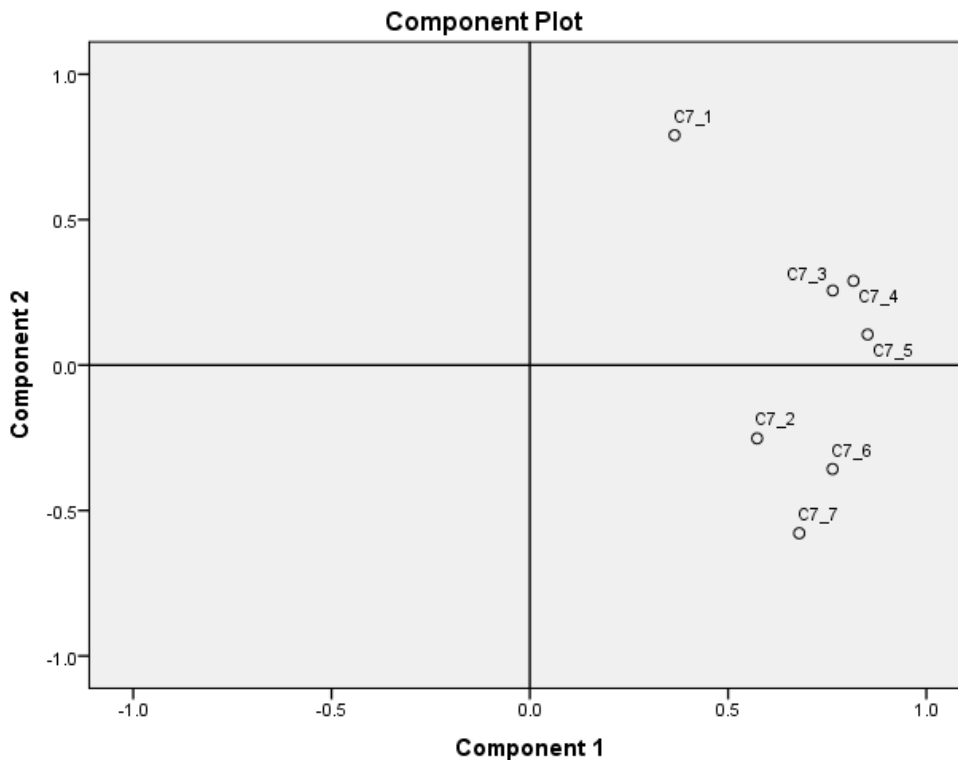


Figure 5: Component Plot for Institutional Factors Affecting ERM Practice

In Table 9a, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy coefficient of 0.728 establishes that the variable was reliably measured, as it is above the recommended minimum of 0.60. The p value of the Bartlett's Test of Sphericity is also statistically significant at 5% ($p = .000 \leq .05$), thus establishing the factorability of the variable. The Table of communalities (Table 9b) shows that a higher percentage of the items measuring the variable was extracted. The total variance explained generated two components (Table 9c), explaining total variance of 68.458%. In component 1 explaining 49.735% of the total variance, all items measuring Institutional Factors loaded strongly above 0.30 (Table 9d). This implies that all seven items are valid measures of Institutional Factors affecting ERM Practice. The visual presentation of the factor loading across the components is presented in Figure 5.

(b) Confirmatory Factor Analysis

To subject the factors to a more rigorous test, CFA was employed, and the result is presented in Table 10 and Figure 6.

Table 10: Result of Confirmatory Factor Analysis on Institutional Factors Affecting ERM Practice

| | OIM | | | | | |
|--|-----------------|-----------|-------|-------|----------------------|----------|
| | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] | |
| Measurement | | | | | | |
| IF1 <- | | | | | | |
| IF | 1 (constrained) | | | | | |
| _cons | 4.076923 | .1244012 | 32.77 | 0.000 | 3.833101 | 4.320745 |
| IF2 <- | | | | | | |
| IF | .9412168 | .349734 | 2.69 | 0.007 | .2557507 | 1.626683 |
| _cons | 3.923077 | .0958575 | 40.93 | 0.000 | 3.7352 | 4.110954 |
| IF3 <- | | | | | | |
| IF | 1.578316 | .4856866 | 3.25 | 0.001 | .6263874 | 2.530244 |
| _cons | 3.605769 | .0984516 | 36.62 | 0.000 | 3.412808 | 3.798731 |
| IF4 <- | | | | | | |
| IF | 2.163306 | .6355741 | 3.40 | 0.001 | .9176032 | 3.409008 |
| _cons | 3.192308 | .1079983 | 29.56 | 0.000 | 2.980635 | 3.40398 |
| IF5 <- | | | | | | |
| IF | 1.900564 | .5663029 | 3.36 | 0.001 | .7906307 | 3.010497 |
| _cons | 3.711538 | .0898646 | 41.30 | 0.000 | 3.535407 | 3.88767 |
| IF6 <- | | | | | | |
| IF | 1.82013 | .587926 | 3.10 | 0.002 | .6678166 | 2.972444 |
| _cons | 3.384615 | .125596 | 26.95 | 0.000 | 3.138452 | 3.630779 |
| IF7 <- | | | | | | |
| IF | 1.228154 | .4172156 | 2.94 | 0.003 | .4104259 | 2.045881 |
| _cons | 3.721154 | .0936765 | 39.72 | 0.000 | 3.537551 | 3.904756 |
| LR test of model vs. saturated: chi2(14) = 91.64, Prob > chi2 = 0.0000 | | | | | | |

The result in Table 10 shows that the p values of the items measuring the variable are all statistically significant, implying they reliably measure the variable. the standardized scores of each item is presented in Figure 6.

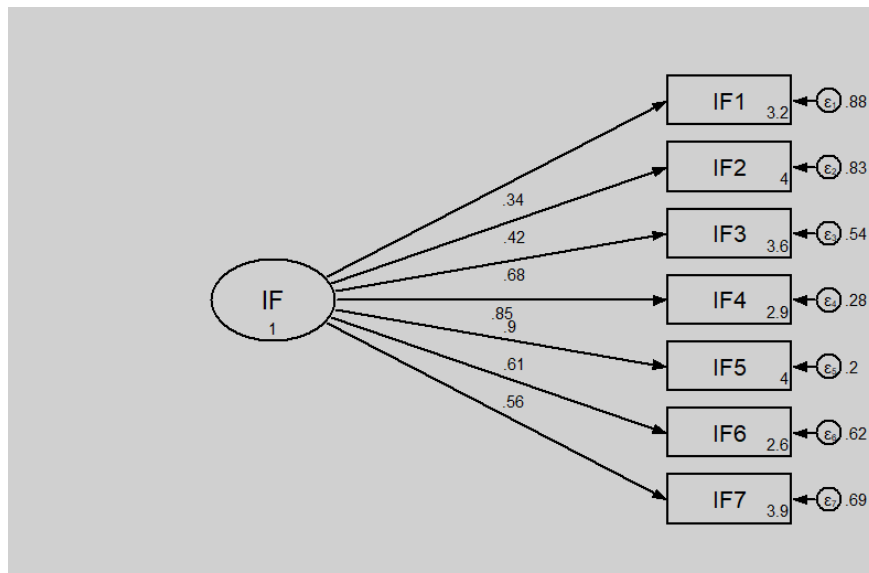


Figure 6: Confirmatory Factor Analysis of Institutional Factors Affecting ERM Practice

From the result in Figure 6, all items loaded above 0.30. This is consistent with the earlier result obtained from EFA. Based on these results, the seven items are therefore retained for analysis as Institutional Factors affecting ERM Practice.

4.3 Results from Structural Equation Modelling

Result from Structural Equation Modelling of the relationship between ERM Practice, Impact of Institutional Factors and Impact of ERM practice on Organizational sustainability is presented in Figure 7 and Tables 11a and 11b. In the Structural Equation Analysis, ERM practice is modelled as a reflective latent variable derived by combining all methods of managing ERM (i.e. ERM1 to ERM10). Organizational sustainability (OST) is also modelled as a reflective latent variable derived by combining all measures of long-term performance (i.e. OST1 to OST7).

Figure 7: Structural Equation Modelling of the Relationship between ERM Practice, Impact of Institutional Factors on ERM Practice, and Impact of ERM Practice on Organizational sustainability

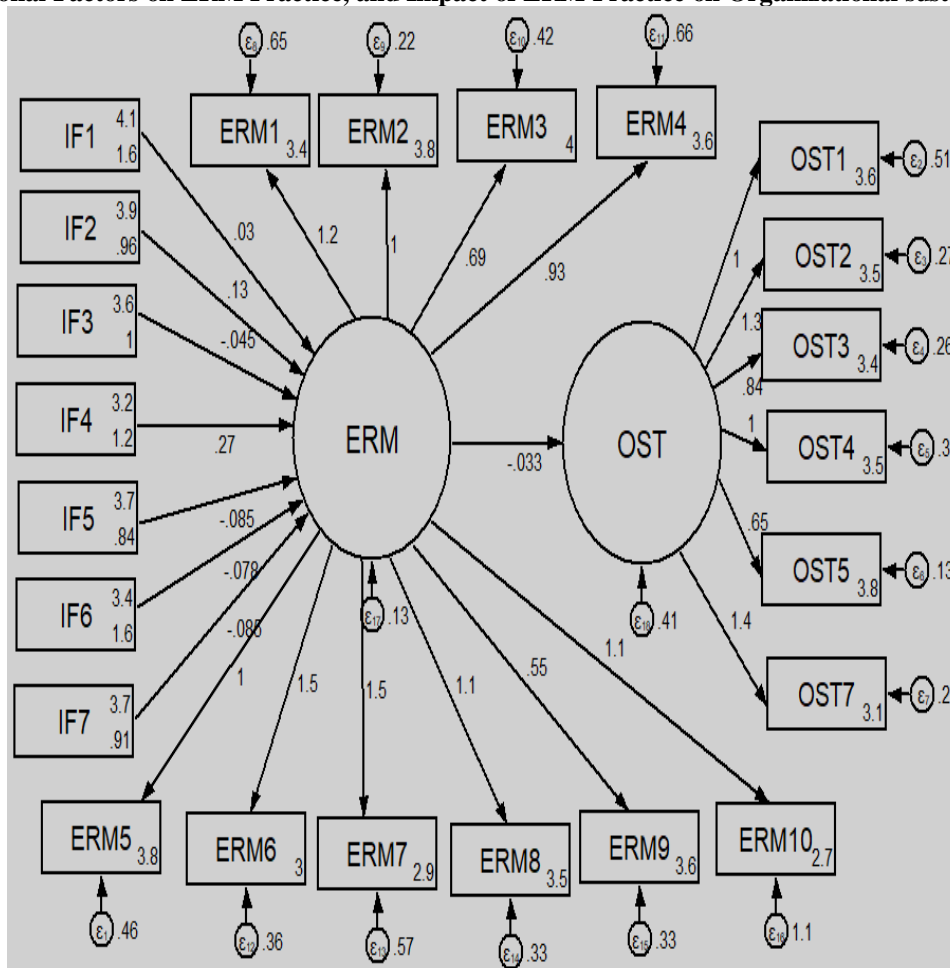


Table 11a: Result from Structural Equation Analysis of The Relationship Between ERM Practice, Institutional Factors and Organizational Sustainability (Panel A)

| | OIM | | | | | |
|-------------------|-----------|-----------|-------|----------|----------------------|----------|
| | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] | |
| Structural | | | | | | |
| ERM <- | | | | | | |
| IF1 | .0301573 | .0379838 | 0.79 | 0.427 | -.0442895 | .1046042 |
| IF2 | .1338139 | .0529902 | 2.53 | 0.012** | .029955 | .2376727 |
| IF3 | -.0449606 | .0560486 | -0.80 | 0.422 | -.1548139 | .0648926 |
| IF4 | .2669928 | .077249 | 3.46 | 0.001*** | .1155875 | .4183981 |

| | | | | | | |
|-----|-----------|----------|-------|-------|-----------|----------|
| IF5 | -.0847887 | .0848374 | -1.00 | 0.318 | -.251067 | .0814897 |
| IF6 | -.0781413 | .0524709 | -1.49 | 0.136 | -.1809825 | .0246999 |
| IF7 | -.0845799 | .0667043 | -1.27 | 0.205 | -.2153179 | .046158 |

| | |
|--------|---|
| OST <- | |
| ERM | -.0334933 .1656641 -0.20 0.840 -.3581889 .2912023 |

LR test of model vs. saturated: $\chi^2(208) = 1147.93$, Prob > $\chi^2 = 0.0000$

Table 11b: Result from Structural Equation Analysis of The Relationship Between ERM Practice, Institutional Factors and Organizational Sustainability (Panel B)

| | OIM | | | | |
|--------------|----------|-----------|---|------|----------------------|
| | Coef. | Std. Err. | z | P> z | [95% Conf. Interval] |
| var(e.ERM5) | .4639604 | .0735841 | | | .3400012 .6331133 |
| var(e.ERM1) | .6496653 | .0987069 | | | .4823501 .8750178 |
| var(e.ERM2) | .2187576 | .0385702 | | | .1548402 .3090598 |
| var(e.ERM3) | .4211077 | .0625174 | | | .3147924 .563329 |
| var(e.ERM4) | .6601315 | .0976228 | | | .494028 .8820828 |
| var(e.ERM6) | .3617635 | .0729565 | | | .2436485 .5371379 |
| var(e.ERM7) | .5651383 | .1002283 | | | .3992019 .8000496 |
| var(e.ERM8) | .3297892 | .0567332 | | | .2353994 .462027 |
| var(e.ERM9) | .3335128 | .0482637 | | | .2511497 .4428866 |
| var(e.ERM10) | 1.061351 | .1580599 | | | .7926755 1.421094 |
| var(e.OST1) | .507013 | .0773338 | | | .3759991 .6836776 |
| var(e.OST2) | .2702638 | .0509754 | | | .1867411 .3911434 |
| var(e.OST3) | .2572544 | .0408507 | | | .18845 .3511797 |
| var(e.OST4) | .3386424 | .0558214 | | | .2451491 .4677916 |
| var(e.OST5) | .1317772 | .0212122 | | | .0961218 .1806585 |
| var(e.OST7) | .2240011 | .0491673 | | | .1456851 .3444175 |
| var(e.ERM) | .1275598 | .0517739 | | | .0575743 .2826174 |
| var(e.OST) | .4143666 | .1114058 | | | .2446428 .7018384 |

LR test of model vs. saturated: $\chi^2(208) = 1147.93$, Prob > $\chi^2 = 0.0000$

From the result in Table 11a, institutional factors positively affecting ERM practice are Government regulations (IF1), Company’s shareholders (IF2), and Company’s customers (IF4), while the factors negatively affecting ERM practice are Financial institutions/ Fund Providers (IF3), Competitors’ activities (IF5), practice by Multinational organizations (IF6) and Recommendations of Consultants/ Professional bodies (IF7). However, Company’s customers (IF4) exert the greatest influence on ERM practice ($b = .2669928$, $p \leq .01$), followed by Company’s shareholders (IF2) ($b = .1338139 \leq .05$). The other five institutional factors have no significant impact on ERM practice of microfinance banks in Nigeria (research objective one).

Result also shows that although the impact of ERM organizational sustainability (ERM->OST) is negligible and negative, the result is not statistically significant. In other words, ERM practice has no significant impact on sustainability of Microfinance banks in Nigeria (research objective two).

In order to explore this result, robustness check was conducted on the application of ERM and Organizational sustainability in section 4.4.

4.4 Additional analysis—Robustness Check of Results

Additional analysis was conducted to explore the robustness of ERM practice. Result is presented in Tables 12a and 12b.

Table 12a: Descriptive Analysis of robustness of ERM Practice

| | | Statistic | Std. Error |
|-----|----------------------------------|-----------|------------|
| ERM | Mean | 3.9067 | .05084 |
| | 95% Confidence Interval for Mean | | |
| | Lower Bound | 3.8059 | |
| | Upper Bound | 4.0076 | |

| | | |
|---------------------|--------|------|
| 5% Trimmed Mean | 3.9222 | |
| Median | 3.9000 | |
| Variance | .269 | |
| Std. Deviation | .51845 | |
| Minimum | 2.50 | |
| Maximum | 4.90 | |
| Range | 2.40 | |
| Interquartile Range | .80 | |
| Skewness | -.399 | .237 |
| Kurtosis | -.007 | .469 |

Table 12b: Frequency distribution of ERMPpractice

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 2.50 | 3 | 2.9 | 2.9 | 2.9 |
| 3.00 | 2 | 1.9 | 1.9 | 4.8 |
| 3.20 | 6 | 5.8 | 5.8 | 10.6 |
| 3.40 | 9 | 8.7 | 8.7 | 19.2 |
| 3.50 | 9 | 8.7 | 8.7 | 27.9 |
| 3.60 | 2 | 1.9 | 1.9 | 29.8 |
| 3.70 | 12 | 11.5 | 11.5 | 41.3 |
| 3.80 | 5 | 4.8 | 4.8 | 46.2 |
| 3.90 | 8 | 7.7 | 7.7 | 53.8 |
| 4.00 | 2 | 1.9 | 1.9 | 55.8 |
| 4.10 | 5 | 4.8 | 4.8 | 60.6 |
| 4.20 | 8 | 7.7 | 7.7 | 68.3 |
| 4.30 | 9 | 8.7 | 8.7 | 76.9 |
| 4.40 | 12 | 11.5 | 11.5 | 88.5 |
| 4.50 | 3 | 2.9 | 2.9 | 91.3 |
| 4.60 | 3 | 2.9 | 2.9 | 94.2 |
| 4.70 | 3 | 2.9 | 2.9 | 97.1 |
| 4.90 | 3 | 2.9 | 2.9 | 100.0 |
| Total | 104 | 100.0 | 100.0 | |

In Table 12a, the overall Mean or average ERM practice index is 3.9067 (equivalent to 78.134% on the measurement scale) which is adjudged moderate, since it is below 4.0 (equivalent of 80%). The standard deviation of 0.51845 confirms that there is wide variability in the degree to which microfinance banks implement ERM. The information on the spread of ERM practice among organizations is furnished in the result of Table 12b in which majority of the organizations have an index below 4.0. This shallow implementation level of ERM may be responsible for insignificant impact of ERM practice on organizational sustainability. Further probe of the robustness of each ERM technique provides additional insight on popularity and applicability of various ERM techniques as presented in the boxplot of Figure 8.

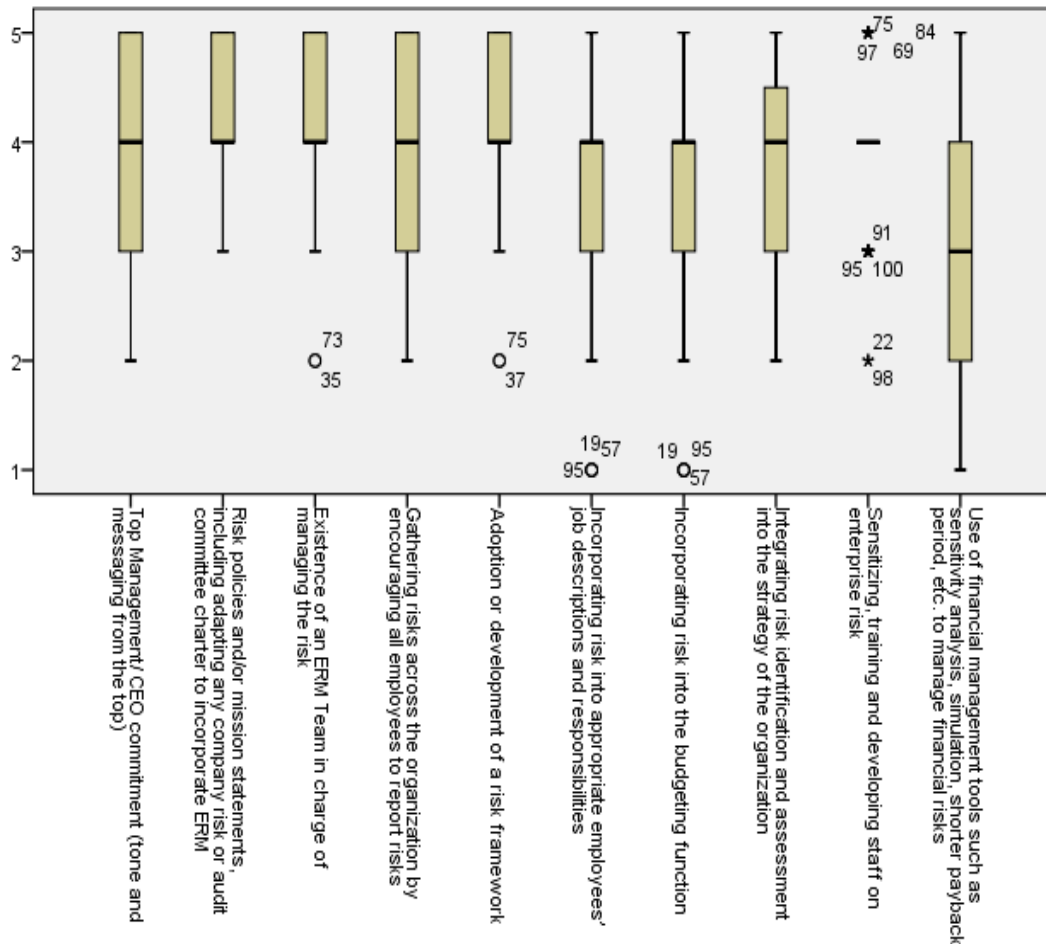


Figure 8: Boxplot of ERM Techniques adopted by Microfinance Banks in Nigeria

Whilst some ERM measures have high usage rate (e.g. top management commitment, existence of risk management policy, existence of ERM team, integrating risk identification and assessment into the strategy of the organization, and Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks), other critical elements that relates to active involvement of employee in risk management such as incorporating ERM into employee job description and employee training and development on ERM record very low usage. This shows that when organizational fail to incentivize and sensitize their employees on ERM, this may adversely affect organizational performance and may threaten organizational sustainability in the long run.

The specific impact of each ERM technique on organizational sustainability is presented in Tables 13a and 13b.

Table 13a: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .730 ^a | .533 | .482 | .50766 |

a. Predictors: (Constant), Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks, Existence of an ERM Team in charge of managing the risk, Top Management/ CEO commitment (tone and messaging from the top), Gathering risks across the organization by encouraging all employees to report risks, Sensitizing, training and developing staff on enterprise risk, Risk policies and/or mission statements, including adapting any company risk or audit committee charter to incorporate ERM, Incorporating risk into appropriate employees' job descriptions and responsibilities, Incorporating risk into the budgeting function, Integrating risk identification and assessment into the strategy of the organization, Adoption or development of a risk framework

Table 13b Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 3.688 | .452 | | 8.166 | .000 |
| Top Management/ CEO commitment (tone and messaging from the top) | -.094 | .064 | -.128 | -1.464 | .147 |
| Risk policies and/or mission statements, including adapting any company risk or audit committee charter to incorporate ERM | -.157 | .111 | -.144 | -1.408 | .163 |
| Existence of an ERM Team in charge of managing the risk | .054 | .096 | .055 | .566 | .573 |
| Gathering risks across the organization by encouraging all employees to report risks | .504 | .080 | .652 | 6.314 | .000 |
| Adoption or development of a risk framework | -.728 | .110 | -.841 | -6.647 | .000 |
| Incorporating risk into appropriate employees' job descriptions and responsibilities | .021 | .088 | .027 | .240 | .811 |
| Incorporating risk into the budgeting function | -.271 | .074 | -.392 | -3.689 | .000 |
| Integrating risk identification and assessment into the strategy of the organization | .516 | .102 | .553 | 5.047 | .000 |
| Sensitizing, training and developing staff on enterprise risk | -.092 | .094 | -.082 | -.978 | .331 |
| Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks | .279 | .059 | .451 | 4.751 | .000 |

a. Dependent Variable: OST (Organizational Sustainability)

As earlier submitted, it appears that the areas of ERM where organizations excel positively and significantly affect organizational sustainability, while areas of weak application of ERM have negative and insignificant impact on organizational sustainability. For example, areas of low employee involvement in ERM such as incorporating risk into appropriate employees' job descriptions and responsibilities and Sensitizing, training and developing staff on enterprise risk have no significant impact on organizational sustainability while other areas of high application of ERM technique such as Integrating risk identification and assessment into the strategy of the organization, and Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks.

Result also shows that only three out of the ten ERM techniques have significant positive impact on Organizational sustainability, notably Gathering risks across the organization by encouraging all employees to report risks ($b = 0.504$, $p < .01$), Integrating risk identification and assessment into the strategy of the organization ($b = 0.516$, $p < .01$), and Use of financial management tools such as sensitivity analysis, simulation, shorter payback period, etc. to manage financial risks ($b = 0.279$, $p < .01$). Not surprisingly therefore, the coefficient of determination ($R^2 = 0.533$) is moderate at best, and this is consistent with the earlier result of the SEM that overall ERM has no significant impact on Organization sustainability.

V. Conclusion

This paper investigates the institutional factors affecting ERM and the impact of ERM practice on organizational sustainability. Result shows that Company's customers exert the greatest influence on ERM practice, followed by Company's shareholders. Other institutional factors such as Government regulations, Financial institutions/ Fund Providers, Competitors' activities, Multinational organizations, and Recommendations of Consultants/ Professional bodies have no significant impact on ERM practice of microfinance banks in Nigeria (research objective one). Result also shows that although the impact of ERM organizational sustainability is negligible and negative, the result is not statistically significant. In other words, ERM practice has no significant impact on sustainability of Microfinance banks in Nigeria (research objective two).

Whilst the extensive implementation of ERM has the potential to enhance organizational sustainability, it appears that the inability of ERM practice to significantly engender organizational sustainability is not unconnected to the generally shallow implementation level of ERM. There is there the need for microfinance banks to stepup the robustness and intensity of implementing ERM for them to realize the ensuing benefits. It is recommended that organizations should concentrate on proactively and deliberately managing risks arising from its core competencies, the critical technologies and processes needed to ensure continued market leadership. Other considerations which ensure that the risk exposure of a firm is minimized to enhance organizational effectiveness and sustainability must be considered so as to guarantee stakeholders satisfaction.

The results of this study suggest low level of employee involvement in enterprise risk management. To this end, more emphasis should be placed on risk management education by the Board of Directors in respective organizations. This could help checkmate the detrimental effects of poor risk management culture, lax risk management practice, weak internal control systems, and weaknesses in monitoring and controlling organizational activities, risk assessment, information communication and a weak control environment. In addition, as auditors are major risk management personnel, it is recommended that appointments of external auditors and Audit committee members should be done on merit and not on sentiments. These external parties should be adequately compensated so as to encourage healthy relationships and better execution of their oversight functions. Regulatory bodies such as the SEC, NSE and CBN should not renege in their efforts to enhance the risk management best practice and internal control systems of quoted companies in Nigeria.

The model developed, utilized and investigated in this study, has shown results that give motivation for a wider study to be undertaken to improve the results of the findings. The continued application of the scales used in this study to a wider sample size and extensions with other methodologies may improve our understanding of the influence of enterprise risk management on organizational sustainability. Using a survey method to gather data creates a potential for bias. One limitation of this study was respondents' disinclination to give information, or giving misrepresenting or inadequate information related to their internal control system as a whole. Future studies may consider corroborating the results of this study with secondary data as obtained from the company's annual report and other sources of external data.

The scope of this research was also limited by its sample size and scope of microfinance banks operating in Lagos, Nigeria. Caution must therefore be exercised in using this study as a basis of generalization on enterprise risk management practice in Nigerian financial institutions. In doing so, an avenue for further research is potentially provided to investigate enterprise risk management in other sectors of the economy and in other countries.

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