

MODERATING INFLUENCE OF EXTERNAL ENVIRONMENT ON THE LINK BETWEEN TRANSFORMATIONAL LEADERSHIP AND PERFORMANCE OF MICROFINANCE BANKS IN KENYA

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Abstract

The organisational performances of microfinance banks in Kenya remain pertinent for both micro and macro-economic development in the country. However, according to central bank of Kenya, annual report and financial statements 2019 to 2020 and bank supervision annual report 2020, the microfinance banks recorded a combined loss before tax of KSh 1.0 billion in the year ended June 2020, compared to a loss of KSh 0.7 billion in the previous year ended June 2019. The purpose of this study was to assess the moderating influence of external environment on the link between transformational leadership and performance of microfinance banks in Kenya. The study was anchored on transformational leadership theory, open systems and stakeholder theories. The study adopted positivism research philosophy and applied cross-sectional survey design. The study's target population was the 14 microfinance banks as listed by the central bank of Kenya as of 31st December 2020. The study applied stratified proportionate random sampling and questionnaires were used to collect data from 366 respondents. Primary data was analysed using inferentially analysis. The model results revealed that there is a strong, positive and statistically significant relationship ($R = 0.734$, $p < 0.05$), between transformational leadership, external environment and performance. The model further shows $R\text{-squared} = 0.539$ this means that 53.9% of variation in performance can be explained by a unit change in transformational leadership and external environment. This study finding revealed that external environment significantly moderates relationship between transformational leadership and performance of microfinance banks in Kenya. The study recommends that microfinance banks adopt the use of decision support systems to increase the manager's effectiveness in decision making and that the use of computerized information system makes the banking services to the customers more efficient and the use of computerized information system increases the banking staff effectiveness respectively.

Key words: *External, Environment, Transformational, Leadership, Performance, Microfinance, Banks, Kenya*

1.0 Introduction

Trung and Ba (2021), found that transformational leadership has a large and significant influence on organisational change capability and organisational performance in Vietnam. Considerably, organisational change competence moderates the impact of transformational leadership on operational and financial performance. Further Hancott Daren (2014), established that the best performing companies used a greater variety of transformational leadership style than poor performing companies. This argument is supported by Mortazavi and Partovi (2014) findings that transformational leadership style has a positive and significant influence on organisational commitment, employee motivation and job satisfaction in Iran. Veiseh et al. (2015) also found that the characteristics of transformational leadership style such as inspirational motivation, hopeful influence, personal observations and intellectual encouragement influence both employee and performance. Malaysian authors Ismil et al., (2011) opined that, transformational leadership on supporters' organisation performance was indirectly influenced by empowerment (Ismail, Mohamed, Suleiman, Mohamad & Yusuf, 2011). The idea of this relationship is intriguing Nevertheless, little is thought about the intervening impact of empowerment in the leadership show. The subsequent examines on the role of empowerment on transformative leadership confirmed that it played a significant role on 3 organisational leadership and their organisation performances (Mokhber, bin Wan Ismail & Vakilbashi, 2015). Leadership staff used approaches and methods established by the partners, which contributed immensely to their organisation performance. The management had to share their own creativity and innovation keeping in mind the end goal to accomplish the target objectives.

In Kenya institutions have appreciated the direct leadership - organisational performance relationship in improving organisational performance which is attributed on leadership change. Kenya is no exception, as the country continues to struggle with corporate success. This is largely due to the fact that most organisations, including microfinance institutions, have struggled with leadership, resulting in poor organisational performance. The dismal organisational performance and decline in organisational performance of microfinance banks have been attributed to poor leadership and mismanagement (Marjorine & Muturi, 2017). In this unpredictable environment, it is important for microfinance banks to understand the factors that

encourage development and growth, safeguard their core mandate and enhance stakeholders' value. Hence, the motivation of this study is to find out whether adoption of transformational leadership style can resolve organisational challenges facing microfinance banks in Kenya.

Most state corporations have embraced three out of the four of transformational leader dimensions that is inspirational motivation (though weak), creative stimulation and personalized consideration (Koech & Namusonge, 2012). The ability to achieve excellent organisational outcomes is dependent on both transformational leadership and workforce engagement. In state corporations in Kenya, three of the four leader behaviours; intellectual stimulation, inspirational motivation, and individualized attention of supervisors are positively associated and relevant for both employee engagement and organisational performance (DatcheAwuor, 2015). The study will adopt the four elements of transformative leadership style which are; inspirational motivation, individualized consideration, Idealized influence, Intellectual stimulation. When a leader motivates their people to accomplish, this is known as inspirational motivation. For their followers and their organisation, this leader sets high and acceptable goals. They elicit dedication and foster a common vision for their company. When a leader performs as a powerful role model for their organisation and leads by example, this is known as idealized influence. These kinds of leaders examine and prioritize the requirements of their followers. In an instance where a leader encourages their people to think for themselves, this is known as intellectual stimulation. These leaders are imaginative, resourceful, and open to new ideas.

External environmental factors influence aspects that are outside the company's control. The external environment may be divided into two categories: microenvironment and macro environment. Suppliers, consumers, rivals, and stakeholders are all examples of microenvironment influences that impact a company's capacity to service its consumers. The microenvironment is influenced by macro environment surroundings, which are bigger societal factors. Macro environmental forces are uncontrollable by the management of a firm and therefore a firm has to adjust or adapt itself to these external forces. External macro-environmental forces include; Macro-economic factors, political-legal factors, Social and cultural factors, technological factors, unions and professionalism.

Analysts opine that growth in the microfinance bank sector is hindered negatively from high lending rates and low adoption of ICT which invariably is responsible for low organisational performance (Swaleh, & Wekesa, 2020). In this study macro-economic and information communication technology factors that have high impact on organisational performance of microfinance banks in Kenya was considered to form external environment variable which was the moderating variable in the study. The Macro-economic factors for this study are; monetary policy, inflation rate, lending rate, and national saving interest rate. In this study macro-economic factors and information communication technology that has high impact on organisational performance of microfinance banks in Kenya was considered to form external environment variable which was the moderating variable in the study.

Microfinance banks were created with the intention of providing financial assistance to underprivileged communities in order to enable people make a livelihood, build better homes, obtain basic education, and combat poverty. With such a core objective, the success of microfinance initiatives was judged by their social impact on the welfare of the target population. (De&Morduch, 2010). Organisational performance metrics let organisations better control their resources, alter their operations, and reward and appraise their employees. (Patrick, 2018). Financial performance assessment in microfinance banks has been criticized since it tends to focus solely on financial metrics, neglecting non-financial issues. Stakeholder theory indicators of organisational performance and has been widely utilized to measure and improve organisational performance (Joseph et al., 2018).

According to a recent World Bank report, the overall number of people still struggling to satisfy basic necessities was 3.4 billion in 2018, accounting for over half of the world's population. This highlights the enormity of the global poverty reduction issue and the importance of efforts in this area. (Meyer 2019). To solve this grave and critical problem, several solutions and techniques have been presented (Leventi, 2018). In Kenya, Micro Finance Banks (MFBs) were pioneered by Non-Governmental Organisations (NGOs) in collaboration with the government. According to Muturi and Wachira, (2017) the government aided the development of MFBs by providing a policy framework and platform for donor support. This explains why micro finance industry in Kenya is one of the fastest growing sector of the economy.

1.1 Statement of the problem

The performances of microfinance banks in Kenya remain pertinent for both micro and macro-economic development in the country. The Kenya vision 2030 places financial inclusion as a key pillar in its achievement making it mandatory for the government to lay strategies of improving the financial institutions (Vision 2030). To this extent, the government has put various measures recognizing the role of microfinance including developing new regulations that anchor on the Microfinance Act 2006. However, according to central bank of Kenya, annual report and financial statements 2019/20 and bank supervision annual report 2020, the microfinance banks recorded a combined loss before tax of KSh 1.0 billion in the year ended June 2020, compared to a loss of KSh 0.7 billion in the previous year ended June 2019. In 2019 the MFBs sector witnessed reduction in staff as the total number of staff declined by 34, from 3,969 to 3,935 (Central Bank of Kenya, 2020). Microfinance banks have the potential to contribute more favorably to the Kenyan economy than is currently the case. However, in order to thrive in a fast changing corporate environment, transformational leadership is required. The general objective of the current study is to determine the moderating effect of external environment on the relationship between transformational leadership and performance of microfinance banks in Kenya.

Study Null Hypothesis:

***Ho:** There is no significant moderating effect of external environment on the relationship between transformational leadership and performance of microfinance banks in Kenya.*

2.0 Literature Review

2.1 Theoretical literature review

2.1.1 Transformational leadership theory

The theory of transformational leadership was originally introduced by James V. Downton, the first to invent the term "Transformational leadership", a theory further enhanced by leadership expert and presidential biographer James MacGregor Burns in 1978 (Burns, 1978). Transformational leadership can be demonstrated when "leaders and followers support each other progress to a greater level of morality and motivation," according to Burns (Burns, 2004). Burns spoke on envisioning leaders who can assist the team in taking on and achieving difficult tasks. Later, in 1985, Bernard M. Bass expanded on Burn's theory of leadership by incorporating

a psychological concept into the equation. Through the strength of their vision and personality, transformational leaders are able to encourage followers to change their expectations, views, and drive to work towards common goals. Burns also defined transformational leaders as those who can lead followers up Maslow's hierarchy while also motivating them to think beyond their own interests (Bass, 1998). Contrasting the transactional approach, it is not based on a "give and take" relationship; however, it is based on the leader's personality, traits and capability to make a difference through example, articulation of an energizing vision and challenging goals. There are four (4) constituents to transformational leadership, also referred to as the 4 I's.

The transformational leadership theory is beneficial during research when examining the effect transformational leaders and the leadership styles adopted have on employee retention and performance. The idealized effect of leaders, inspirational motivation and the ability to inspire confidence, intellectual stimulation and innovation, and customized attention of group members are some of the unique constructs of transformational leadership style (Mgeni&Nayak, 2016; Northouse, 2013). If the transformational leadership style is successful in building relationships with workers to promote employee retention and organizational performance in Kenyan microfinance institutions, it will be clear through an evaluation of these particular components if it is.

2.1.2 Open systems theory

After World War II, open systems theory was developed in response to earlier views of organizations, such as Elton Mayo's view of human relations and Henri Fayol's administrative theory, considers the organization as essentially an independent unit. The open systems approach was first applied by Katz and Kahn, who adapted general systems theory to organizational behavior (Katz and Kahn, 1966). This approach defines organizational behavior by mapping iterative cycles of input, output, output, and feedback between the organization and its external environment. The environment is made up of other organizations acting on different forces of an economic, political or social nature. The environment also provides important resources that support organizations and promote change and survival. The system receives input in the form of information or resources from the environment. The systems then internally process the input (called throughput) and release the outputs back into the environment in an attempt to restore environmental balance. The system then looks for feedback to evaluate whether the output was

successful in restoring balance. Open systems theory has fundamentally changed our understanding of microfinance banks as institutions and the demands placed on their leaders. Treating microfinance banks independent of their environment can lead to widespread misunderstanding of organizational change dynamics (Michael 2004). Studying the movement for empowerment, professionalization of staff and leadership are all powerful open systems approaches to understanding environmental pressures and the appropriateness or lack of in banking policies and practices. Microfinance have benefited. Indeed, researchers today are rightly wary of work that does not take into account the rich context in which microfinance banks develop.

2.1.3 Stakeholder Theory

The principal idea of stakeholder theory is that businesses should create value for all their stakeholders – those who can affect or be affected by the realization of an organisation's purpose (the wide definition) or those without whose support the organisation would not exist (the narrow definition). The composition of stakeholders may differ depending on a company's industry and business model, but the most typical representation of stakeholders includes customers, employees, financiers (such as shareholders, bondholders, and banks), suppliers, and communities. Stakeholder theory posits that businesses can be understood as a set of relationships among stakeholders. Thus, executives who manage businesses should pay close attention to how stakeholder interactions are managed and attempt to avoid trade-offs among stakeholders (Friedman & Miles, 2002). This theory is relevant to the study as it measures the performance of the organisation through addressing non-financial and financial such as customer and employee satisfaction and profitability aspects of the organisation (Mitroff, 1983). Therefore, this study will measure performance using three dimensions that is financial performance, business performance and organisational effectiveness.

2.2 Empirical Literature Review

Transformational leadership, external environment and performance.

Issah and Antwi (2017), investigated the impact of macroeconomic factors on company organisational performance in the United Kingdom. The data was analyzed using multiple regressions. They looked at 59 macroeconomic factors and used principal component analysis to

reduce the number of variables. The adjusted R² value for the complete sample model was 0.91, and the following factors were significant: lagged ROA, adjusted unemployment rate, benchmarked unit labor costs, real GDP, and exchange rate. In addition, five of the six industries evaluated had substantial F-values.

Thamhain (2010) examined the influences of project environment and leadership style on team performance and examined in a field study of 74 technology-based project teams. The unit of analysis used in this study is the project. The field study, conducted between 2005 and 2008, yielded data from 74 project teams with a total sample population of 877 professionals. A questionnaire was developed to measure the (1) characteristics of the work environment, (2) team leadership, and (3) team performance. Key performance indicators (KPI) included measures such as overall team performance, the ability of dealing with risk, effort, and commitment toward agreed-on objectives. The findings provide insight into the business processes, organizational conditions, and managerial leadership styles most conducive to high project performance in complex and technology-based team environments. One of the most striking findings is the large number of performance factors associated with the human side. Organizational conditions that satisfy personal and professional needs seem to have a strong effect on cooperation, commitment, risk management, and ultimately drive overall team performance.

According to Chinedu and Chinedu (2018), their study Macroeconomic factors, firm characteristics, and financial organisational performance, a study of selected quoted manufacturing firms in Nigeria, found that interest rate and exchange rate have a significant effect on ROA, but inflation rate and GDP growth rate have a significant effect. Secondly, the firm characteristics displayed that firm size, leverage and liquidity were important. The goal of this research is to look at how macroeconomic conditions, business characteristics, and financial organisational performance of listed manufacturing businesses in Nigeria interact. Specifically, the study looks at the effects of interest rates, inflation, exchange rates, and GDP growth rates, whereas business characteristics include size, leverage, and liquidity. Return on assets is used to measure the dependent variable's financial organisational performance (ROA). Ex post facto research was used in this study. Firms listed on the NSE's floor as of the end of 2017 make up

the study's population. The study concentrated on firms in the consumer goods sector of the Nigeria Stock Exchange (NSE). The study employed secondary data. The study employed a non-probability sampling methodology known as purposive sampling, which included all consumer products companies in the sample. Multiple linear regression was utilized to validate the hypotheses in this investigation. The study's findings have a practical use for regulators and policymakers when making policy decisions. Managers may also get a better understanding of the relationship between macroeconomic conditions, firm characteristics, and business profitability.

Mwangi and Wekesa (2017) investigated the impact of economic conditions on Kenyan company organisational performance. The study employed a descriptive research approach, with 74 employees from Kenya Airways' Finance Department serving as the sample. The study's economic parameters were interest rates and taxation, whereas the dependent variables were efficiency and growth. The study relied on primary data. They tested the ideas using the multiple regression methodology. They discovered that economic considerations had a significant impact on organisational performance.

2.3 Conceptual Framework

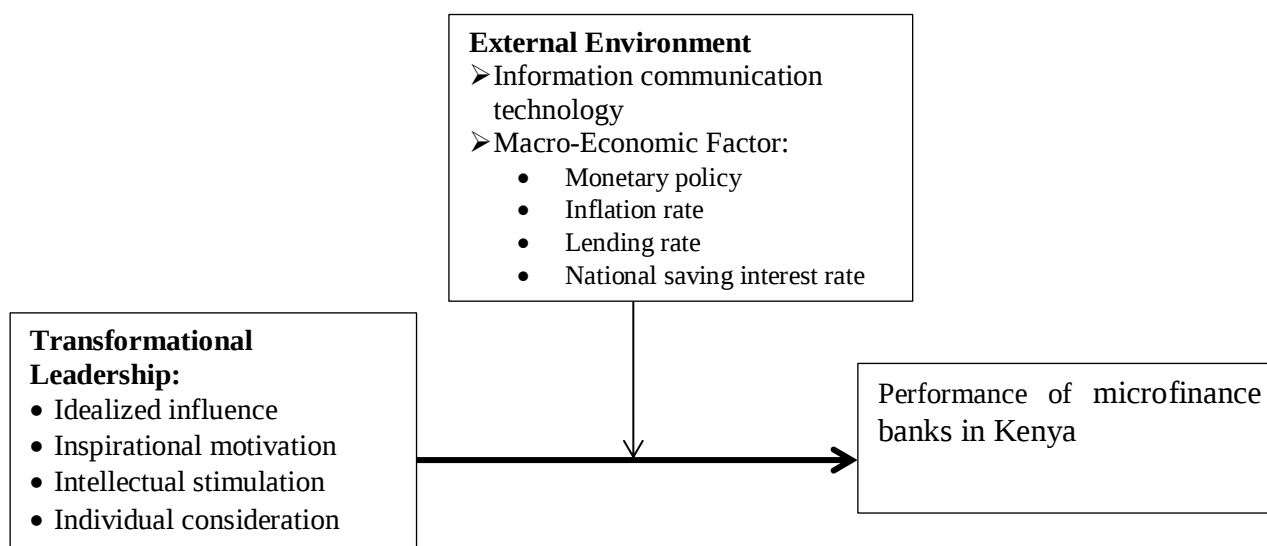


Figure 1: Conceptual framework

3.0 Methodology

A research philosophy is a set of beliefs about how to gather, analyze, and apply evidence on a phenomenon. It is the fundamental belief system that guides research methods and involves three important aspects: ontology, epistemology, and axiology (Scotland, 2012). The research philosophies of positivism, interpretism, realism, and pragmatism are classified by Saunders et al., (2012). Knowledge, according to positivism, is founded on natural phenomena, their qualities, and relationships. It emphasizes scientific rigor in its quest for knowledge and inquiry (Cooper & Schindler, 2014).

Positivism, often known as scientific positivism, is based on the idea that reality is stable and can be observed and described objectively. It is thus conceivable to influence reality by changing a single independent variable in order to discover correlations between real-world elements. These interrelationships can be used to make predictions (Saunders et al., 2012). Frankfort-Nachmias, and Nachmias (2008) posited that cross-sectional studies enable the researcher to establish the significance and strength of relationships among variables. The cross-sectional survey design is adopted for this study because it will help to provide answers to the research question of how and to what extent transformation leadership influences Performance of microfinance banks in Kenya.

3.1 Target Population

The target population for this study is the microfinance banks in Kenya as of 31st December 2020. The unit of analysis of the study are the 14 licensed microfinance banks in Kenya (CBK, 2020). According to the central bank of Kenya banks supervision annual report 2020, page 32, Table 12 on employment trends in the banking sector, the banking sector has four main cadre of staff namely; management, supervisory, clerical and secretarial.

3.2 Sample Size

The sample size of the study was determined using Yamane (1967) formula, as follows;

$$n = \frac{N}{1 + N(e)^2} \quad \text{Where:}$$

n is the sample size; N is the population size – 3935; E is the margin error – 5%.

$$\text{Thus, } n = \frac{3935}{1 + 3935(0.05)^2} = 366 \quad (3.1)$$

The final sample size will comprise of 366 respondents.

3.3 Sampling Technique

Stratified proportionate random sampling technique was used to ensure that every cadre of staff on each stratum of the target population equally represented in the study. Using a sample size of 366 participants as calculated in equation (3.1), 91 respondents was drawn proportionately from each stratum, that is sample size divide by 4 stratas ($366/4=91$). This gives the proportionate number of respondents to be drawn from each stratum. Proportionate sampling is considered because it provides the researcher with a means of achieving even greater representativeness in the sample of the population (Van-Dalen, 1979).

3.4 Pilot Study

Ravitch and Riggan (2012) posited that pilot testing builds on the questionnaire to limit problems in answering the questions by the respondents. Pilot testing helps to spot flaws in the design and instrumentation and offer proxy data for selection of a sample. For high precision and due to time, cost and practicality of the pilot study, 1% to 10% of the sample will constitute the pilot test size (Arain, et al., 2010). The researcher used 7% which will realize 25 participants of the sample who was randomly selected from the sample size of 366 participants. These participants in the pilot study will not be involved in the final study to avoid bias.

Reliability

Reliability testing is a measure of the internal consistency of each variable (Cronbach, 1951). According to Cooper and Schindler (2014), an instrument is deemed reliable if it yields consistent results after repeatedly trials. This is measured by use of Cronbach's alpha which has the capability of assessing the correlation average of items in a test or the internal consistency measure. A coefficient of 0.6-0.7 is a widely recognized rule of thumb for indicating satisfactory reliability (Castillo, 2009). This study adopted Cronbach's alpha coefficient of 0.7 and higher.

Validity

Validity is the degree upon which the processed information is the true representation of the phenomenon of the study. The understanding of validity also follows how a sample of items can represent the constructs of interest (Polit & Beck, 2006). Validity of the questionnaire was, at the first stages, tested by reviewing it with the supervisors. Their views were evaluated and incorporated to enhance content validity of the questionnaire. This is in line with Cooper and

Schindler (2014) proposition that researchers should confine their efforts to face, content, construct and concurrent validities.

3.5 Hypotheses Testing

The model was relied upon to check whether the “prediction of a dependent variable, Y, from an independent variable, X, differs across levels of a third variable, Z” (Hayes Andrew, 2013). Moderating variable affects the strength and direction of the relationship between predictors and an outcome thus increasing, reducing, or affecting the influence of the predictor variable. Whisman and McClelland (2005) discuss moderation effects within the context of interaction between factors or variables, whose test involves determining whether the coefficient for the interaction term is statistically significant”. A single regression equation forms the basic moderation model:

Where:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots \dots \dots (1)$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_3 + \varepsilon \dots \dots \dots (2)$$

Finally, model 2 was used to estimate and give the direction and effect of the moderator on the independent variable and the total effect (of the moderator) on the dependent variable by interacting the moderating variable and the independent variable. Thus,

$$Y = \beta_0 + \beta_1 X_1 + \beta_3 X_1 * X_3 + \varepsilon \dots \dots \dots (3)$$

Y = Performance

X_1 = Transformation Leadership variable; $X_1 * X_3$ = Transformation Leadership * External environment; X_3 = External environment; β_0 = Constant; β_1, β_3 = Beta coefficient; ε = Error term

4.0 Data Analysis and Research Results

4.1 Response Rate

Respondents for this study were individual employees drawn from the microfinance banks in Kenya. The study particularly targeted four main cadre of staff namely; management, supervisory, clerical and secretarial in the organisation. In this study, table 1 depicts the response rate.

Table 1: Response Rate

Response Rate	Frequency	Percent
Returned	288	78.69%
Unreturned	78	21.31%
Total	366	100%

A total of 366 questionnaires were administered out of which 288 were adequately filled, collected and used in the study translating into 78.69 percent response rate. In the perspective of Mugenda and Mugenda (2013) a rate of response of 50% is enough for a research, while Babbie (2004) opined that return rates of 50 percent are acceptable, 60% is regarded as good were as above 70% is regarded as excellent. Thus, this response rate was considered excellent and ideal for this study. Therefore the data from the 288 questionnaires adequately filled and collected was used for analysis in this study.

4.2 Reliability Test Results

Accordingly, the results for all the variables are above the 0.7 threshold, it is inferred that the measurement items for each variable are internally consistent. The study adopted the lowest alpha as 0.7 upwards. Table 2 presents values of the questionnaire items. The results of the reliability tests are summarized in table 2.

Table 2: Reliability results

Variable	Number of Items	Cronbach Alpha
Transformational Leadership	12	0.824
External Environment	30	0.783
Performance	20	0.749

4.3 Validity Test Results

Adequacy of sample size was determined using the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy. According to Yin (2014) KMO is a statistic used to examine and justify the appropriateness of application of factor analysis, in other words KMO is used to examine whether the data collected is adequate and appropriate for inferential statistical tests such as the factor analysis, regression analysis and other statistical tests. The KMO statistic varies between 0 and 1. A value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and relative factors. The study employed Kaiser- Meyer-

Olkin (KMO) and Barlett's Test of Sphericity for measurement of sampling adequacy. For a data set to be regarded as adequate and appropriate for statistical analysis, the value of KMO should be greater than 0.5 (Field, 2000). Table 3 shows the Kaiser- Meyer- Olkin (KMO) and Barlett's Test of Sphericity results.

Table 3: Summary of KMO and Bartlett's Test

Variable	KMO	Bartlett's Test of Sphericity		
		Chi-Square (χ^2)	Df	Sig. Level
Transformational Leadership	.894	2665.200	66	.000
External Environment	.860	6251.232	435	.000
Performance	.875	7156.968	190	.000

This result indicates a significant relationship among variables. From the statistical analysis as shown above, all the KMO scores were significant with a value greater than 0.70 which implied that all the items captured were valid for further statistical analysis such as the factor analysis, regression analysis and other statistical tests.

4.4 Multi-Collinearity Test

Besley, Kuh and Roy (1980) cited by Keraro (2014) and Opiyo (2017) concluded that identification of multicollinearity in a model is important and is tested by examining the tolerance and the variance inflation factor (VIF) diagnostic factors. The variance inflation factor (VIF) measures the impact of multi-collinearity among the variables in a regression model, this means that VIF diagnostic is used to guarantee that the variables are not overlapping or explaining the same variance in the dependent variable which in turn may inflate variance explained or the R^2 (squared). This means that the study conducted multicollinearity test to assess whether high correlation existed between one or more variables in the study with one or more of the other independent variables. Variance inflation factor (VIF) measured correlation levels between the predictor variables and estimated the inflated variances due to linear dependence with other explanatory variables.

This study adopted tolerance value of less than 0.8 and VIF value of less than 10 to mean there is no issue of multicollinearity that arises when there is an approximate linear relationship among independent variables. The study tested the tolerance and the VIF among the study variables as shown in table 4 for multicollinearity. The study concluded that there was no case of multicollinearity between the dependent and independent variables.

Table 4: Multicollinearity Test (Tolerance and VIF)

Research Variables	Collinearity Statistics	
	Tolerance	VIF
Transformational leadership	.403	2.479
External environment	.439	2.278

Dependent Variable: Performance

4.5 Test of Homoscedasticity

According to Levene (1949), Levene test of homogeneity/equality of variance is a test of whether the variances of two samples/groups are approximately equal or homogenous. The independent samples t-test assumes that the variances of the sample groups are approximately equal, or the samples have homogeneity of variance (same nature/kind), that is variance of the groups is of the same nature. Levene test is used to test whether the variances of two samples are approximately equal that is the test of homogeneity of variance. In Levene's test we want the variances to be the same, we want the Levene's test to be non-significant, that is the assumption of independent sample T-test, the group variances are the same, thus we want the Levene test to be non-significant because we do not want the variances to be different. In SPSS a Levene test is conducted automatically anytime you do an independent sample T-test. If Sig. is greater than 0.05, Levene's Test is non-significant so equal variances are assumed.

Table 5: Tests for Homogeneity of Variances

Variable	Levene's Statistic	df1	df2	Sig.	Comment
Transformational Leadership	1.383	27	257	.104	p>0.05 hence equal variance
External Environment	.917	38	244	.612	p>0.05 hence equal variance

Dependent Variable: Performance

The results on table 5, shows the homogeneity results, the significant p values for the Levene's test were 0.104 for transformational leadership and 0.612 for external environment. Since the Levene's statistics were less than 5, then the research data was found to conform to assumptions of homogeneity of variances. Homoscedasticity is a situation in which the variance of the dependent variable does not vary across the data (Ghasemi & Zahediasal, 2012).

4.6 Hypotheses Test Results

This study that sought to determine the moderating effect of external environment on the relationship between transformational leadership and performance of microfinance banks in Kenya. This was achieved by testing of the null hypothesis as follows:

Ho: There is no significant moderating effect of external environment on the relationship between transformational leadership and performance of microfinance banks in Kenya

To test this null hypothesis, a hierarchical multiple regression analysis was conducted. The test for moderation was checked and tested using the regular linear regression menu item in SPSS. Given the level of refinement and ease of use of the PROCESS macro developed by Hayes (2013a, 2013b), as well as the frequency with which it is used by researchers whose work has been published in the highest-ranking journals, it is recommended using this tool when testing for conditional indirect effects.

Step1: At this step, the researcher ran the model with the un-centered interaction to get the amount of variance accounted for by the predictor (Transformational Leadership) with and without the interaction (external environment). At this step, the researcher was only interested in if the models are significant and if the amount of variance accounted for in Model 2 (with the interaction) is significantly more than Model 1 (without the interaction). The results of this test were presented in table 6.

Table 6 : Regression Tests of the effect of Transformational Leadership and External environment on performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.685 ^a	.469	.467	.46757	.469	252.593	1	286	.000
2	.734 ^b	.539	.534	.43734	.070	21.447	2	284	.000

a. Predictors: (Constant), transformational leadership

b. Predictors: (Constant), transformational leadership, external environment, Interaction term

The results in table 6 under ANOVA shows that model 1 is significant without the interaction term (external environment) and it is a good fit and exists where $F(55.222, 0.219) = 252.593$, $p < 0.001$. The results further shows that model 2 is also significant with the interaction term (external environment) it is a good fit and exists where $F(21.142, 0.191) = 110.535$, $p < 0.001$. In table 7 results show that, Model 2 with the interaction between external environment and transformational leadership accounted for significantly more variance than just external environment and transformational leadership by themselves, R^2 change = 0.070, $p = 0.000$, indicating that there is potentially significant moderation between external environment and transformational Leadership on organisation performance. The model results on table 7 revealed that there is a strong, positive and statistically significant relationship ($R = 0.734$, $p < 0.05$), between transformational leadership, external environment and performance. The model further shows R-squared = 0.539, which means that the model explains 53.9% of what organisational performance is comprised of in this dataset as a result of the interaction with transformational leadership and external environment. This means that 53.9% of variation in performance can be explained by a unit change in transformational leadership and external environment.

Step 2: Since there is a potentially significant moderation effect, the researcher ran the regression on the study variables that is transformational leadership, external environment and performance to examine the moderation effect. This was best done using an add-on process application in SPSS developed by Andrew Hayes (Hayes, 2013). During the running of the process, the bootstrapping is used to calculate standard errors and confidence intervals, the output of the process is as shown in table 7.

Table 7: Moderation effect of External environment on Transformational leadership and Organisation Performance

OUTCOME VARIABLE: Performance						
Model Summary						
	R	R-sq	MSE	F	df1	df2
	.7339	.5387	.1913	110.5349	3.0000	284.0000
p						
						.0000
Model						
	coeff	se	t	p	LLCI	ULCI
constant	3.8991	.0267	146.1222	.0000	3.8466	3.9517
TL	.4411	.0555	7.9527	.0000	.3319	.5503
ExEn	.5849	.0522	11.2007	.0000	.4821	.6876
Int_1	-.1274	.0522	-2.4390	.0153	-.2303	-.0246

 Product terms key:

 Int_1(Interaction_term): TL(transformational leadership) ExEn(External Environment)

Test(s) of highest order unconditional interaction(s):

Focal predict: TL (X)

Mod var: ExEn (W)

DATA LIST FREE/

TL ExEn Performance

BEGIN DATA.

-.6415 -.6165 3.3032

-.0235 -.6165 3.5300

.6249 -.6165 3.7678

-.6415 .0110 3.7215

-.0235 .0110 3.8988

.6249 .0110 4.0849

-.6415 .5954 4.1111

-.0235 .5954 4.2424

.6249 .5954 4.3801

END DATA.

GRAPH/SCATTERPLOT=

Transformational Leadership WITH Performance BY External Environment

The first part of the output in table 7 lists the variables in the analysis, indicating performance as a dependent variable (Y), transformational leadership as independent variable (X) and external environment as a moderator (W). The results from a regression model are displayed which includes the interaction effect between the independent variable (transformational leadership) and the moderator (external environment).

The moderator test results in table 7 shows that the external environment has p-value = 0.000 where ($p < 0.05$) which means that external environment as a moderating variable is a predictor of organisational performance of microfinance banks in Kenya. In the case of transformational leadership as the independent variable, the results shows that the variable had a p-value = 0.0000 ($p < 0.05$), which means that transformational leadership is also a predictor of organisational performance of microfinance in Kenya. Table 7 further shows the interaction effect between transformational leadership style, external environment and performance was significant where p-value = 0.0153 ($p < 0.05$). The bootstrapping results on table 7 shows that the index for moderation is significant, since the Zero (0) was outside the lower and upper confidence interval (LLCI: -.2303, ULCI: -.0246) and thus moderation is significant. This means that there is interaction effect between external environment and transformational leadership style on

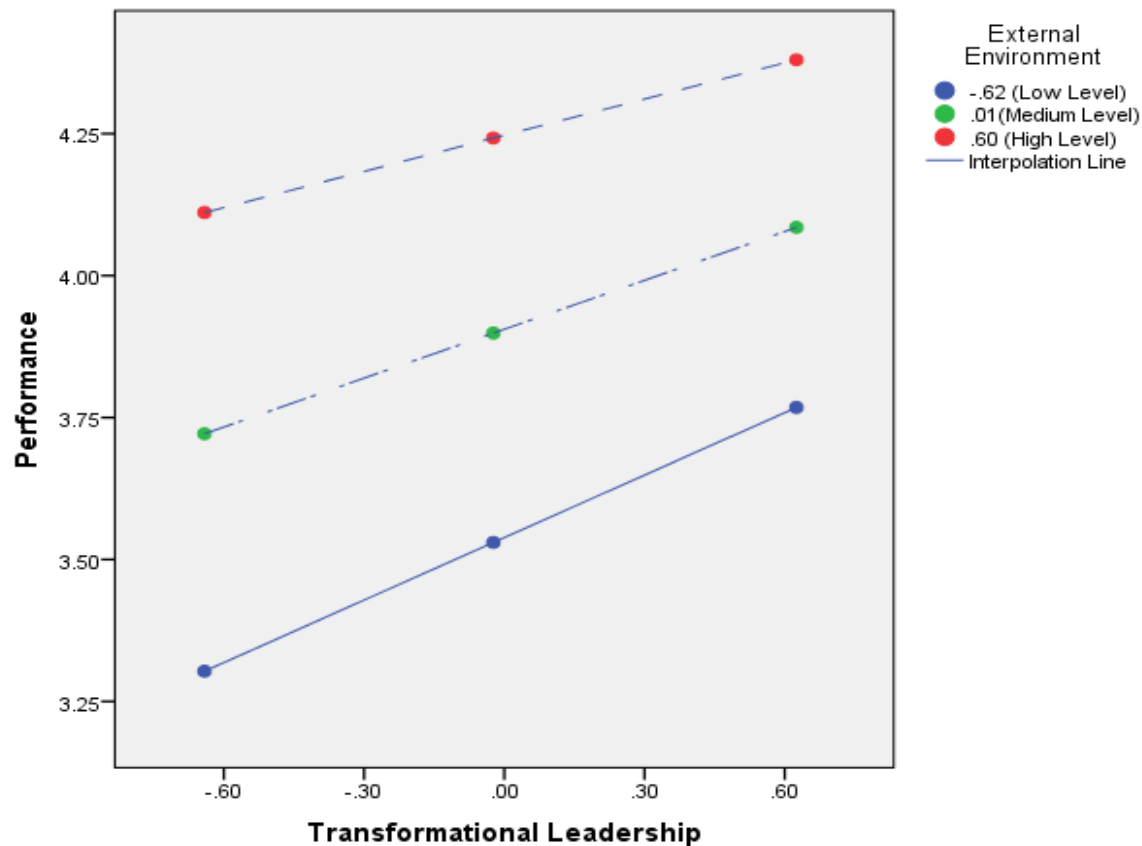
performance of microfinance banks in Kenya. This further means that the effect of transformational leadership style on organisational performance of microfinance banks in Kenya is contingent upon the external environment. Therefore, based on the results presented, the study hypothesis that states that there is no moderating effect of external environment on the relationship between transformational leadership and performance of microfinance banks in Kenya was nullified and the alternative hypothesis supported. The model explaining the results enumerated in Table 7 is given by:

$$(iii).....Performance = 3.8991 + 0.4411 (transformational leadership) + 0.5849(external environment) - 0.124 (Interaction(transformational leadership*external environment))$$

Step 3: The researcher went further to plot the interaction points in table 7 to interpret the interaction between transformational leadership style, external environment and performance. The interaction is as shown in figure 2. Figure 2 visualizes the effect the moderator variable (external environment) has on the independent variable (transformational leadership) and dependent variable (performance) at three(3) different levels of external environment at -.62 (Low level(-1SD)), .01 (Medium level) and .60 (High level).

The figure 2 shows that when external environment and transformational leadership level interaction level is low (-.62) at negative 1 Standard Deviation (-1SD), the organisational performance of microfinance banks in Kenya was low and the organisation performance increases as the interaction between external environment and transformational leadership increase. Further figure 2 shows that when the interaction between external environment and transformational leadership is medium (50%), the performance of microfinance banks in Kenya also is at medium level though higher than when there is low interaction between external environment and transformational leadership.

Figure 2: Effect of external environment on transformational leadership and performance.



Finally figure 2 above shows that when the interaction between external environment and transformational leadership is higher at positive 1 Standard Deviation (+1SD), the performance of microfinance banks in Kenya is also higher and thus with more interaction of external environment and increase in transformational leadership there is corresponding increase in performance of microfinance banks in Kenya. Results indicate that when the interaction of transformational leadership and external environment was introduced to the relationship between transformational leadership as well as external environment and performance, the effect of transformational leadership is increased and thus increasing organisation performance as well. This implies that through interaction with the external environment, the effect of transformational leadership improves performance.

5.0 SUMMARY AND CONCLUSION

This study finding revealed that external environment significantly moderates relationship between transformational leadership and performance of microfinance banks in Kenya. The study recommends that microfinance banks adopt the use of decision support systems to increase the manager's effectiveness in decision making and that the use of computerized information system makes the banking services to the customers more efficient and the use of computerized information system increases the banking staff effectiveness respectively. Since monetary policy works mainly through interest rates and government ministry monitors closely all key rise in central bank rate and the rise in interest rates directly constrains the ability of banks to make new loans, making credit less available to borrowers who depend on microfinance bank financing. This means that profitability can be affected by bank size and can persist overtime thus the study recommends adoption of low interest rate to enable the small and micro enterprises which are served by the microfinance banks able to access credit and in the process the microfinance banks are profitable through loan repayments by small and micro enterprises. Further the study found that low national savings interest rates shy away client from taking loans and affects savings of investment and the customers' investment is affected by interest rates on savings. The study recommends the central bank of Kenya and other banking sector stakeholders' participatory involvement in setting up interest rates which is beneficial to all, since lowering the policy interest rate will stimulate consumption and investment while discouraging people from saving, but low interest rates may also prompt people to increase their saving to compensate for the low rate of return. Finally, the study commends that through interaction with the external environment, there is an effect of transformational leadership that improves performance in microfinance banks in Kenya.

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