

**INFLUENCE OF MANAGERS' DEMOGRAPHIC INFORMATION ON THE
RELATIONSHIP BETWEEN FINANCIAL DETERMINANTS INDICATORS AND
FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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Abstract

Despite the implementation of financial determinant indicators in commercial banks, banks still declare deficit from operational income. The purpose of this study was to examine the influence of manager's demographic information on the relationship between financial determinant indicators and financial performance of commercial banks in Kenya. Mixed method of research design which comprised of quantitative and qualitative designs was applied in this study. Quantitative and qualitative data were collected through questionnaires. Target population was 43 licensed Commercial Banks in Kenya. Cronbach Alpha test of 0.961 was obtained indicating the reliability of the research instrument. Content and criterion validity were ensured through incorporating the experts' suggestions in the final document. Data was analyzed using descriptive statistics and inferential statistics which included correlation analysis, bivariate regression analysis and multiple regression analysis after testing for normality, multicollinearity and performing factor analysis. The study findings established a significant relationship between financial determinant indicators and financial performance. This relationship was magnified with the influence of the moderating variable (manager's demographic information). In the practical life this moderating relationship is vital since banks need competent (experienced and skilled) personnel to install and operationalize risk management framework, enhance product diversification, implement strategies on credit information sharing to avoid multiple loaning and non-performing loans and facilitate adoption of collateral security that encourage earlier repayment of credit facility and avoid recoveries.

Keywords: *Manager's Demographic Information, Risk Management Practice, Financial Performance, Commercial Banks*

1.0 Introduction

Financial institutions play a vital role in the operation of an economy by channeling funds from savers to borrowers for investment which enables economic growth of a country. Otuori (2013) and Oloo (2009) explained that, Commercial banks contribute positively to economic growth of a country by channeling surplus funds to their most productive uses. Kamau (2009) noted that banks dominated the financial sector therefore financial intermediation in the country depends heavily on commercial banks. Athanasoglou, Delis and Staikorous (2006) explained that good performing banks have higher profitability which in turn rewards the shareholders for their investment and increases confidence level for additional investment hence increasing economic growth. Ongore and Kusa (2013) indicated that banking environment in Kenya has for the past

decade, undergone many regulatory and financial reforms which have brought about expansion in their operations.

Ongore and Kusa (2013) examined CBK annual reports and highlighted that not all banks were profitable despite the overall profitability experienced in the banking sector for the past 10 years that attracted other macro and micro banking institutions. Oloo (2011) echoed that commercial banks still declared losses despite of the good overall performance. Onjala (2012) explained that increase in the number of banks has fueled competition over customers. This has therefore caused banks to establish the financial determinants that influence financial performance of commercial banks to remain in business hence informing this study.

Several authors around the world inspected the financial determinants indicators and financial performance in commercial banks, Duraj and Moci (2015) studied on factors influencing banks profitability in Albania, period 1999 to 2014 using multiple regression on 16 commercial banks similarly Alemu and Negasa (2015) studied on performance of commercial banks in Ethiopia, using panel data of banks over the period 2002 to 2013 supported by Fredrick (2015) studied on factors affecting performance of commercial banks in Uganda, for the period 2000 to 2011 using linear multiple regression. Further Ayano and Ponnala (2016) studied on financial performance in Ethiopia where they established that financial performance was affected by the internal factors. Several studies have also been done in Kenya pertaining to determinants of commercial banks financial performance. Tsuma and Gichinga (2016) studied on financial performance of fifteen (15) large banks from 2001 to 2010 using panel data.

Olweny and Shipho (2011) studied on profitability of forty three commercial banks using panel data for the period 2002 to 2008. Onjala (2012) studied on the basic specific factors affecting the commercial banks financial performance on forty three banks (43) using panel data for the period 2001 to 2010. Wamiori, Namusonge and Sakwa (2016) stated that there are several other determinants which were exempted from his study ranging from high risk, credit information sharing and collateral security that affect financial performance in Kenya today. In light of the above facts the aim of this research was to examine the influence of managers' demographic information on the relationship between financial determinants indicators and financial performance of commercial banks in Kenya

1.1 Financial determinant indicators

The following are the financial determinant indicators considered in this study:

1.1.1 Credit information sharing

Commercial banks transfers' resources from unproductive to productive users/uses hence need for information flow. Okelo, Namusonge and Iravo (2015) observed that borrowers have more information than lenders therefore may use for their personal advantage. In Kenya, Central Bank gazette and operationalized Credit Refence Bureau Regulations in 2009 to govern the licensing, operation and supervision of Credit reference Bureau as a medium for exchange of credit information (Kerage & Ndede, 2013). Kerage and Jagongo (2014) measured credit information sharing using non-performing loans, operational cost, level of interest and volume of lending.

1.1.2 Risk management practices

Risks are uncertain/threats that derail the company from achieving the set goals. Risk management is the general strategy of proactively managing uncertainties or threats. Commercial banks experience several

threats while undertaking financial intermediation function (Kannan & Thangavel, 2008). Gakure, Ngugi and Waithaka (2012) indicated that risk management practice involves risk assessment and measurement. Commercial banks that implement risk management practice harnesses several opportunity to attract more customers and increased efficiency that affects profitability (Oluwafemi, Obawale & Oladunjoye, 2014).

1.1.3 Portfolio Diversification

This refers to investing in different products and locations. Pandey (2010) indicated that diversification is one of the general techniques for reducing investment risk and maximizing returns. Drucker and Puri (2009) indicated that diversified banks benefit from leveraging managerial skills and abilities across products and geographical regions. Commercial banks make several investments ranging from geographical innovations, combination of assets, variety of loan products and variety of deposit accounts.

1.1.4 Collateral Security

Commercial banks approve credit facility on the basis of the security pledged. Larossi (2009) indicated that 90% of firms in different sectors of the economy reported that collateral is a requirement for loan approval since it increased the banks confidence of issuing a loan.

Baker (2009) noted that the lender has the right to obtain the collateral from the borrower in lieu of payment if he defaults on the loan. Collateral items can range from property plant and equipment (motor vehicle, property, cars and houses, accounts receivables and inventory (Wallace, 2013).

1.1.5 Managerial Demographic Information

These are managers of an institution who are responsible for running the institution on daily basis and they make managerial decisions or routine decisions within a firm. The managerial decisions include investment in capital projects, division of earnings, management of liquidity in the firm (Pandey, 2010). Through this moderating variable the researcher wanted to establish the influence of demographic information on the relationship between determinants and financial performance. The managers' demographic information includes experience, education level and earnings per month. Kariuki, Namusonge and Orwa (2015) indicated that experienced of managers influence financial performance.

1.2 Conceptual Framework

There are three variables under study: Independent variable (Credit information sharing, Risk management Practice, Portfolio diversification and collateral security), dependent variable is financial performance and the moderating variable is manager's demographic information as highlighted in figure 1 next page.

Independent Variable

Dependent Variable

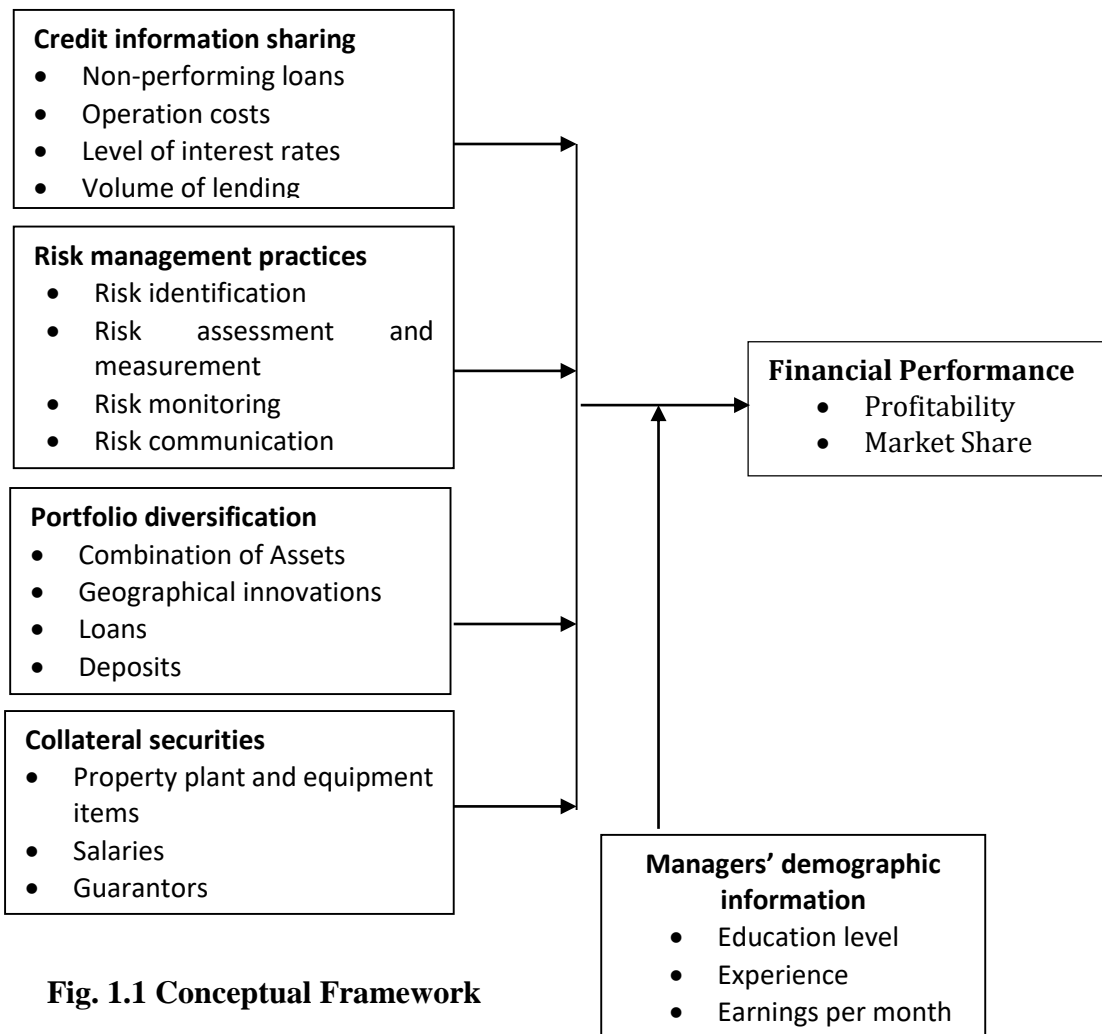


Fig. 1.1 Conceptual Framework

2.0 Research Design

Mixed method of research design consisting both qualitative and quantitative approaches guided the study and based on logical inductive positivism that deals with what is measurable to reach conclusions about the hypothesis and address the research objectives and the research problem of this study. Njeru, (2012) asserted that mixed method of research design is appropriate for collecting descriptive data where the researcher wants to know about people or attitudes consisting one or more variable through direct inquiry. Kariuki, Namusonge and Orwa (2015) applied this research design in their study on the determinants of corporate cash holdings among private manufacturing firms in Kenya

3.0 Target Population

The study targeted a population of 43 commercial banks licensed by Central Bank of Kenya in 2014 because they are major financial institutions that save and lend money for investment to investors.

4.0 Findings

Descriptive and inferential statistics were used to analyze the data after which information was presented in the form of frequency distribution tables.

4.1 Multiple regression results

Multiple regression analysis was used to establish the joint effect of independent variables; credit information sharing (β_1, X_1), Risk management practices (β_2, X_2), Portfolio diversification (β_3, X_3) Collateral security (β_4, X_4) on dependent variable (financial performance, Y). The linear regression model used was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Table 4.1 the results showed that coefficient of determination (R^2) is 0.770 which meant that the independent variables explained 77% of the changes in the financial performance of commercial banks in Kenya. The correlation coefficient of (R) 0.878 showed the strength of association between the independent and dependent variable. The findings imply that credit information sharing, risk management practice, portfolio diversification and collateral security are strong determinants of financial performance in Commercial banks Kenya.

Table 4.1: Financial Performance Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|----------|-------------------|----------------------------|
| 0.878 | 0.770 | .761 | .52654 |

a. Predictors: (Constant), Risk Management Practices, Portfolio theory, Credit Information Sharing and Collateral Security.

Table 4.2 shows that the regression analysis slope coefficient representing the influence of the independent variables: Credit information sharing, Risk management practices, Portfolio diversification and Collateral security on dependent variable: financial performance.

The t-statistic was used to test the hypothesis on the significance of slope coefficient at 5% level of significance. The findings showed credit information sharing had a statistically insignificant positive relationship with financial performance of commercial banks in Kenya ($t=0.386$ and $P=0.700 > 0.05$), risk management practices had a positive and significant relationship with financial performance of commercial banks in Kenya ($t = 3.032$, $P=0.003 < 0.05$), portfolio diversification had a positive and significant relationship with financial performance of commercial banks in Kenya ($t = 5.585$, $P=0.000 < 0.05$), and collateral security had a positive and significant relationship with financial performance of commercial banks in Kenya ($t = 2.065$, $P=0.042 < 0.05$). The findings of this study implied that the major determinants of financial performance of commercial banks in Kenya are risk management practices, portfolio diversification and collateral security. The linear regression equation was $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$. B coefficient indicate the values for the regression equation for predicting the dependent variable (financial performance) from the independent variables (credit information sharing, risk management practices, portfolio diversification and collateral security). The equation was $Y = -0.40 + 0.034 X_1 + 0.306 X_2 + 0.444 X_3 + 0.208 X_4$. The Beta coefficient compares the magnitude of the coefficients to see which one has more effect. Table 4.2 findings indicate that portfolio diversification has more effect followed by risk management practices, collateral security and finally credit information sharing.

Table 4.2: Financial Performance Regression Coefficients

| Variables | B | Std. Error | Beta | T | Sig. |
|----------------------------|-------|------------|-------|--------|-------|
| (Constant) | -0.40 | 0.201 | | -0.200 | 0.842 |
| Credit information sharing | 0.034 | 0.088 | 0.033 | 0.386 | 0.700 |
| Risk management practices | 0.306 | 0.101 | 0.280 | 3.032 | 0.003 |
| Portfolio diversification | 0.444 | 0.079 | 0.455 | 5.585 | 0.000 |
| Collateral security | 0.208 | 0.101 | 0.191 | 2.065 | 0.042 |

a. Dependent Variable: FP

The researcher dropped the insignificant variable (credit information sharing $p=0.700 > 0.05$) and made a modified regression model consisting of risk management practices, portfolio diversification and collateral security. Table 4.3 findings indicate that risk management practices had a statistically significant positive relationship on financial performance of commercial banks in Kenya ($t=3.446$ and $P=0.001 < 0.05$), portfolio diversification had a significant positive relationship on financial performance of $t= 5.847$ and $p= 0.000 < 0.05$) and collateral security had a significant positive relationship with financial performance of $t= 2.226$ and $p= 0.028 < 0.05$. The findings further indicate the regression equation to be $Y = \beta_0 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ when substituted it becomes $FP = -0.062 + 0.324 X_2 + 0.455 X_3 + 0.219 X_4$ the equation shows improvement in the prediction of financial performance from the independent variable (risk management practices, portfolio diversification and collateral security). The comparison of magnitude of the coefficients showed that portfolio diversification has more effect compared to risk management practice and collateral security.

Table 4.3: modified financial performance regression coefficients

| Variable | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---------------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| (Constant) | -.062 | .202 | | -.307 | .759 |
| Risk Management practice | .324 | .094 | .294 | 3.446 | .001 |
| Portfolio Diversification | .455 | .078 | .462 | 5.847 | .000 |
| Collateral Security | .219 | .098 | .200 | 2.226 | .028 |

a. Dependent Variable: FP

Table 4.4 findings indicate that the regression model summary for the three variables remained similar, correlation coefficient $r = 0.878$ and coefficient of determination $R^2 = 0.770$. Therefore the three independent variables: risk management practices, portfolio diversification and collateral security explained 77.0% of the variances in financial performance and therefore had a strong effect on financial performance of commercial banks in Kenya.

Table 4.4: Financial Performance Model Summary

| R | R Square | Adjusted R Square | Std. Error of the Estimate |
|--------------------|----------|-------------------|----------------------------|
| 0.878 ^a | 0.770 | 0.763 | 0.52952 |

ANOVA (F-test) was used to test the overall significance of the regression model (goodness of fit) at 5% level of significance. Table 4.5 results indicate the computed F statistic as 107.251 with a P value of 0.000 at the 5% level of significance. Rejected null hypothesis and accept alternate hypothesis since there was significant influence of independent variables on financial performance (dependent variable) of commercial banks in Kenya

Table 4.5: Financial Performance ANOVA^a

| Model | Sum of Squares | Df | Mean Square F | Sig. |
|--------------|-----------------------|-----------|----------------------|---------------------------|
| Regression | 90.218 | 3 | 30.073 | 107.251 .000 ^b |
| Residual | 26.918 | 96 | 0.280 | |
| Total | 117.136 | 99 | | |

a. Dependent Variable: Financial performance

4.2 Inferential results

Test of Hypothesis for moderating variable was as follows:

The study hypothesis is stated as follows:

H₀₁: Managers’ demographics information has no effect on the relationship between financial determinants and financial performance of commercial banks.

H₀₂: Managers demographics information has effect on the relationship between financial determinants and financial performance of commercial banks.

The study employed stepwise moderated multiple regressions (MMR) analysis to determine the moderating effect of managers’ demographics on the relationship between the independent and dependent variable (Linyiru, Karanja & Gichira, 2015). To find the moderator, transformation of the items under the moderating variable was done to obtain one variable called Z (managers demographics), the Z was multiplied by each of the independent variables and added on the original variables one by one at a time after which regression analysis was performed to show the interactive effect of each new independent variable introduced. According to Sekaran & Bougie (2010) a moderator is one that has a strong contingent effect on the relationship between independent and dependent variable.

4.2.1 Managers’ demographic information

It was observed that when managers demographic information was introduced as the moderator on the relationship between determinants and financial performance, the regression model had coefficient of determination (R²) 0.778 which indicates that determinants (risk management practice, portfolio diversification and collateral security) explain 77.8% showing improvement of 0.8% (77.8%-77.0%). correlation coefficient of 0.882 indicate the association of strength between the independent variables and financial performance.

Table 4.6: Financial performance moderated regression model summary

| R | R Square | Adjusted Square | RStd. Error of the Estimate |
|--------------------|-----------------|------------------------|------------------------------------|
| 0.882 ^a | 0.778 | 0.769 | 0.52315 |

a. Predictors: (Constant), Z moderated Risk Management Practices, Risk Management Practices, Portfolio Diversification ,Collateral Security

The t-statistic was used to test the hypothesis on the significance of the slope coefficient at 5% level of significance. Table 4.7 showed a significant relationship between risk management practices $t = 3.873$, $P = 0.000 < 0.05$ portfolio diversification $t = 6.075$ and $P = 0.000 < 0.05$, collateral security $t = 2.637$ and $P = 0.010 < 0.05$ and managers’ demographic information on the risk management practice) $t = -1.831$ and $P = 0.040 < 0.05$. The t statistic coefficients show that the manager’s demographic information has a moderating influence on the determinants of financial performance among commercial banks in Kenya. The estimated Moderated Multiple Regression (MMR) model was as follows: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_{2z}X_2Z + \varepsilon$. $Y = -0.313 + 0.458(X_2) + 0.470(X_3) + 0.265(X_4) - 0.036(X_2Z)$.

Table 4.7: financial performance moderated regression analysis coefficient

| Variables | B | Std. Error | Beta | T | Sig. |
|-----------------------------|----------|-------------------|-------------|----------|-------------|
| (Constant) | -.313 | .242 | | -1.293 | .199 |
| Risk Management practices | .458 | .118 | .415 | 3.873 | .000 |
| Portfolio Diversification | .470 | .077 | .477 | 6.075 | .000 |
| Collateral security | .265 | .100 | .241 | 2.637 | .010 |
| Z*risk management Practices | -.036 | .020 | -.190 | -1.831 | .040 |

Dependent variable: financial performance

The researcher further run ANOVA (F- Test) establish the overall significance of the Moderated Multiple Regression (MMR) model (the goodness of fit) at 5% level of significance. Table 4.8 results indicate that the value of computed F statistic was 83.248 with a P value of 0.000 at the 5% level of significance. The null hypothesis was rejected since the probability value (P value) of computed F is sufficiently low ($P = 0.000 < 0.05$). The Moderated Multiple Regression model fit was acceptable implying that managers’ demographic information significantly moderates the relationship between the independent variable (risk management practices, portfolio diversification and collateral security) and dependent variable (financial performance) among commercial banks in Kenya.

Table 4.8: Financial performance moderated ANOVAa

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|-----------------------|-----------|--------------------|----------|-------------------|
| Regression | 91.135 | 4 | 22.784 | 83.248 | .000 ^b |
| Residual | 26.000 | 95 | .274 | | |

a. Dependent Variable: FP

b. Predictors: (Constant), ZRMP, PD, CS, RMP

5.0 Summary of findings

The findings reveal that with the introduction of demographic information (experience, education level and earning per month) the effect increased compared to the direct effect between determinants and financial performance. Technical experience enables manager's handle the financial determinants to improve performance. Similarly, with good pay per month and having competent staff in terms of qualifications improves decision made and they assist in implementing operationalizing strategies to enhance performance of institutions.

6.0 Conclusion

That financial institution should consider competence of persons during employment since this has significant influence on financial determinant indicators adopted by an institution.

The competence will assist in the implementing of proper strategies on portfolio diversification, risks management practices, updating of credit information and sharing and ensure variety of collateral securities implemented to increase credit facility and motivate early and prompt repayment.

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