Effect of Debt Financing on Business Performance: A Comparative Study between I&M Bank and Bank of Kigali, Rwanda

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Abstract

The effect of debt financing on firm performance is of considerable importance to all bank business. The study is focussed on establishing the effect of debt financing on firm performance, a comparative study between IM Bank and Bank of Kigali within a period of six years from 2010. The study was descriptive and correlative in nature. The study found a strong positive relationship between debt level and profitability for both IM bank and Bank of Kigali. This tends to be less expensive and increasing it with a relatively low interest rate which leads to the increase in profit levels and hence performance. The sustainability indicators shows that, Bank of Kigali was very stable in internal financial health with average SGR of 21

Index terms— debt financing, business performance, banking institution.

1 Introduction and Background

n any business enterprise, the sources of funds depend on the relative ease with which funds of different types are obtainable, and this in turn affected by the character of the company's assets, the seasonal and cyclical fluctuations in its volume of business, its rapidity of growth, its demonstrated or anticipated stability of profits and continuity of operations, its size, and any other aspect of its operations which affects its position as a potential borrower. These factors also determine its financial policy, causing the management to choose one source of financing rather than another (Adam, 2014).

Debt financing is one of financing options most commonly pursued by companies. According to Tirole ??2006), debt financing takes many forms. The essence of debt is that the borrower must repay the funds along with agreed-upon service charges such as interest and loan origination fees. If the money is not repaid as promised, the lender can start collection proceedings. This process can become very uncomfortable for the entrepreneur, who could stand to lose the business and any non-business assets pledged to secure the loan. A long-term loan usually has a payback period between one and five years. Depending on the deal negotiated, these loans are normally secured (collateralized by assets) and guaranteed by the entrepreneurs. Rates and terms on long-term loans vary greatly based on the lending institution's policies and the business's age and financial status ??Bichsel& Blum, 2005).

Assessing the health of an economy can be accomplished by studying the financial performance of its banks, ??Haque& Sharman, 2011). Then banking and financial industry have become a reality in today's economy, as it is witnessing a growing both in terms of the number of such institutions, or in terms of the amount of money managed by or diversity activities. In spite of this progress and successes achieved by the banking and financial institutions, it still has challenges which will require further intensive efforts on the part of these institutions. Such to enhance the quality of its products and services and diversity and to keep pace with the rapid developments taking place in the world in this field (Adam, 2014). The widely used measures to assess commercial banks' performance return on total assets (ROA) and return on total equity (ROE). These measures have been used by

analysts and bank regulators in (a) assessing industry performance (b) forecasting market structure trends (used to predict bank failures and mergers) and (c) other purposes where a profitability measure is wanted (Gilbert & Wheelock, 2007). Over the past several years, an increased attention has been received by financial institutions (particularly commercial banks) on performance analysis. As a result, the research focus has been shifted from characterizing performance in simple ratios as ROA or ROE to a multidimensional systems perspective (Seiford& Zhu, 1999).

Indeed, researchers analyze the debt ratio and try to determine whether an optimal debt ratio exists or not. The optimal debt ratio is the one which maximizes the profitability of the company (Muchugia, 2013).

Besides, the divergence between research can be observed in a theoretical strand of literature. There I are three essential theories which highlight the influence of debt on corporate profitability, namely: trade-off theory, pecking order theory and market timing theory. First, according to trade off theory, states that there is an advantage to financing with debt (namely, the tax benefit of debts) and that there is a cost of financing with debt (the bankruptcy costs of debt). According to the agency costs theory, internal debt is used first; when that is depleted, then debt is issued; and when it is no longer sensible to issue any more debt, equity is issued. According to market timing theory; perceives that managers issue securities depending on the timevarying costs of relative equity and debt and thus issuance decisions have a long-term effect on capital structure because the observed capital structure at any particular date is the outcome of prior issuance decision thus firms prefer to issue equity when the relative cost is low and prefer to issue debt when equity cost is high (Muchugia, 2013).

The Rwanda financial sector is largely dominated by banking sector which holds around 66.9% of the total financial sector assets. The pension subsector comes second, with 17.1%, insurance institutions hold 9.7% and microfinance institutions account for 6.3% of total financial sector assets. The National Bank of Rwanda (BNR) is the sole regulator of the above mentioned financial sector sub-sectors. Other integral components of the financial sector in Rwanda are forex bureaus; capital market and; payment system (BNR, 2015).

Currently, the number of banks increased from 14 in June 2014 to 17 in June 2015. Three banks: AB Bank, Crane Bank, and BRD commercial joined the Rwandan banking industry. In total, the Current Rwandan banking system is composed of 11 commercial banks, 4 microfinance banks, 1 development bank and 1 cooperative bank. Microfinance sub-sector constitutes 13 limited companies, 64 SACCOs, and 416 UMURENGE SACCOs. There are also 88 foreign exchange bureaus. Non-Bank Financial Institutions include 10 private insurers, 2 public insurers, 8 loss adjusters, 6 brokers, 155 insurance agents and 1 public pension fund and 54 private funds. Rwandan banking system is more privately and domestically owned. As of June 2015, close to 61 percent of banking assets were domestically owned. Foreign assets were 39 percent. Private ownership stood at 55 percent of the total banking system assets. Three of the foreign banks are subsidiaries of Kenyan big banks which were ranked among top 100 banks by return on assets in Africa (BNR, 2015).

The relationship between debt financing and firm performance is an important unsolved issue in the field of finance. It is vital to know how low market cap companies handle their capital structure towards the growth of business. Gleason et al., (2000) stated that the manager's decision on different debt and equity level in a capital structure is a specific strategy for improved performance. However, most firms struggle to reach an optimal capital structure in order to minimize the cost of capital and maximize firm value while improving its competitive advantage in the marketplace.

The intimacy suspected between debt level and the performance of firms is a vital unsolved issue in the area of finance. Lack of studies on debt financing and financial performance on commercial banks in Rwanda has motivated my study. Currently most of the commercial banks have engaged in the expansion program which require huge some of capital. The way to access this capital have made me to do research of effect of debt financing on firm financial performance of commercial banks here in Rwanda. The utilization of debt financing shows mixed and conflicting results on business performance. For instance, Ross (1977), revealed that the increasing leverage by taking debt enables the firm to have positive implications on firm performance. Hadlock& James (2002) strongly agree with Ross through their study on undervalued firms where they found a positive relationship between the use of debt finance and firm performance. On another hand, Fama& French, (1998) reported the negative relationship between business performance and debt financing. Based on those contradictory findings, it is very challenging to financial decision makers and other users of financial information to decide whether the use of debt finance in the capital structure is better for business performance or not. This research sought to address this gap in knowledge by conducting a comparative research on two commercial banks in Rwanda. The extent to which the debts influence the bank's financial performance was explored. The study is focussed on the following Hypothesis: H 0 : There is no relationship between debt indicators and financial performance indicators for BK and for I&M Bank. H 1 : There is relationship between debt indicators and financial performance indicators for BK and for I&M Bank.

2 II.

3 Objectives

The primary objective of this study is to analyze the effect of debt financing on the financial performance by comparing the commercial banks in Rwanda, BK and I & M banks. Specifically 1. To assess indicators of

103 financial performance of BK and I&M Bank, 2. To examine the indicators of the debt of BK and I&M Bank, 3.
104 To measure the relationship between debt level and financial performance for BK and for I&M Bank.

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5 Literature Review

108 Debt financing refers to the borrowing of loans from other companies, banks, or financial institutions in order to
109 support a business's operations. The loan principal is repaid at a later point in time, with some interest expenses
110 being paid before the debt's maturity (Cheong, 2015).

111 Financial performance refers to the act of performing financial activity. In broader sense, financial performance
112 refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring
113 the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial
114 health over a given period of time and can also be used to compare similar firms across the same industry or to
115 compare industries or sectors in aggregation (Meigs, 1978).

116 Vedran & Robin (2012) investigated the relationship between capital structure and firm performance of
117 Australian. They found a significant and robust quadratic relationship between capital structure and firm
118 performance of Australian ADIs. At relatively low levels of leverage an increase in debt leads to increased profit
119 efficiency hence superior bank performance. This can most likely be attributed to financial distress outweighing
120 any gains made from managerial performance improving. Abor(2005) investigated the relationship between
121 capital structure and profitability of listed firms on the Ghana Stock Exchange (GSE) during a five-year period.
122 The regression analysis was used in the estimation of functions relating to ROE with measures of capital structure.
123 The study found that there is a significantly positive relation between the ratio of short-term debt to total assets
124 and ROE. However, a negative relationship between the ratio of long-term debt to total assets and ROE was
125 found. With regard to the relationship between total debt and return rates, the results show a significantly
126 positive association between the ratio of total debt to total assets and return on equity.

127 Abor (2007) investigated how macroeconomic factors affect the relationship between capital structure and
128 bank performance from 2004 to 2014 to selected samples of banks in Ghana. The study adopted panel data
129 methodology and used two models: fixed effect regression estimation and Hausman chi-square test conducted
130 in each equation. The study have found that macroeconomics variables and GDP growth were registered to be
131 significant. This signifies that macroeconomics matter in the bank's capital structure and performance. Inflation
132 however was found to be insignificant.

133 Sabin & Miras (2015) investigated the impact of debt level on firm profitability and liquidity of low market
134 capitalized firms listed on the Kuala Lumpur Stock Exchange (Bursa Malaysia) with a sample of 50 low cup
135 firms chosen using quota sample. The study used secondary data (annual reports) from 2010 to 2013. Results
136 have shown that debt level has a negative correlation with CR, QR, ROE, ROA and NPM. The study found that
137 debt level have a significant positive impact on QR. The gearing level has a significant negative impact on ROE,
138 ROA and NPM. The study also explained the results with the support of various capital structure theories and
139 showed the mixture of debt and equity that has a significant impact on the profitability and liquidity of low-cap
140 firms. This was simply to help managers of low cap firms in considering the debt level that could improve the
141 profitability and liquidity.

142 Mazen (2014) conducted a study on the impact of dept on profitability. The study was empirical in nature
143 and used a method of generalized moments (GMM) on an unbalanced panel of 2240 French companies of service
144 sector observed over the period 1999-2006. The study concluded that debt has no influence on profitability either
145 in a linear way, or in a non-linear way and this was consistent with that of Baum et al. (**??**007) on American
146 industrial companies. and there is no impact regardless the size of enterprise. Researcher also presented the
147 analysis using different size classes and found there is no impact regardless the size of enterprise.

148 Harc & ?arlija (2009)investigated the impact of liquidity on the capital structure of Croatian firms where
149 Pearson colleration coeffiecient was applied measure to what extent is the relationship between liquidity ratios
150 and debt ratios, the share of retained earnings to capital and liquidity ratios and the structure of current assets
151 and leverage. A survey conducted on 1058 Croatin firms found that there are statistically significant correlations
152 between liquidity ratios and leverage ratios. Also, there are statistically significant correlations between leverage
153 ratios and the structure of current assets. The relationship between liquidity ratios and the short-term leverage
154 is stronger than between liquidity ratios and the long-term leverage. The study concluded that the more liquid
155 assets firms have, the less they are leveraged. Long-term Leveraged firms are more liquid. Increasing inventory
156 levels leads to an increase in leverage. Furthermore, increasing the cash in current assets leads to a reduction
157 in the short-term and the long-term leverage. Holz (2002), the liability-asset ratio of China's industrial state-
158 owned enterprises (SOEs) has increased dramatically in the course of the economic reform period. Western
159 observers point out the inherent dangers to enterprise solvency. Chinese policymakers view today's level as
160 exceedingly detrimental to enterprise profitability and are introducing measures to reduce it. Yet the increase in
161 the liability-asset ratio of industrial SOEs is the inevitable result of systemic changes; since the early 1990s, the
162 liability-asset ratio has stabilized. The perceived negative impact of the current level of the liability-asset ratio

on enterprise profitability does not hold up in regression analysis. It is true that low-profitability SOEs tend to have a high liability-asset ratio, perhaps due to government-ordained support through bank loans. However, once the endogeneity of the liability-asset ratio is controlled for, a high liability-asset ratio tends to imply a high level of profitability. This suggests that current industrial SOE reforms in China that focus on debt alleviation are misguided.

IV.

6   Methodology

The study aims to assess the effect of debt financing on firm financial performance in Rwanda. This study used the comparative, descriptive and correlative study to realize stated objectives. A comparative research design has been used to enable the researcher to examine the effect level detected on both BK and I&M. Furthermore, the quantitative approach as data collection maintains the assumption of an empiricist paradigm. The study is also descriptive because the characteristics of area of the study must be described. The description has been used for frequencies, averages and other statistical calculations. The researcher has two quantitative ntitative variables from the same subjects group. The reseacher needs to find out if there is association on similarity between debt level and firm financial performance. Method such as explanatory have been used under this study and secondary data only have been used.

7   a) Data collection

Since the study is using only secondary data, there is no specified method to collect them. The data were sourced from the concerned organizations and are available to everyone. Data related to BK, was collected from the web site of BK and data related to I&M Bank, was collected from the web site of I&M Bank.

8   b) Models

To measure the relationship between debt level and firm financial performance, the multiple regression models was formulated as follows:LA it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it LD it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it ROE it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it ROA it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it SGR it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it IGR it = ? 0 + ? 1 DR it + ? 2 DTE it + ? it

Where ? 1 to ? 2 are the coefficients of the variables and ? it is the random error term. ? 0 : stands for the intercept term. Others are described in section je ne saisou?

9   V. Data Analysis, Findings and Results

Debt ratio (DR) shows the portion of money financed the total assets by outsource. The higher the ratio, the more of a firm's assets are provided by creditors relative to owners. Creditors prefer a low or moderate ratio, because it provides more protection in case a firm experience financial problems. The high ratio indicates the weak financial structure. The mean measurement in table above indicates that Bank of Kigali with 81% Debt ratio is more financially stronger than I&M Bank with an average debt ratio of 86% for Debt ratio. Additionally, Bank of Kigali has managed to control its liabilities over the years as it has less standard deviation of 0.7 comparing to I&M Bank with standard deviation of 1.9.

Debt to Equity ratio (DTE) structures the relation between two types of finances; outsource finance represented by total liabilities and inside finance represented by shareholder's equity. The high ratio indicates the weak financial structure. Table above demonstrates that the Bank of Kigali has a low ratio than I&M Bank, as the means indicate. On average, Bank of Kigali creditors provided 4.5 Rwf in financing for every Rwf contributed by owners, comparing to 6.3 Rwf for I&M Bank. On the other hand, I&M Bank with standard deviation of 0.4 has managed to control the variability of this ratio better than its competitor bank with standard deviation of 0.6.

The loan to asset ratio (LA) measures the total loans outstanding as a percentage of total assets. The higher this ratio indicates a bank is loaned up and its liquidity is low. The higher the ratio, the riskier a bank may be to higher defaults, but based on results, it is moderate is the case of Bank of Kigali (with an average of 51% for LA) and weak to I&M Bank (with an average of 47% for LA) which is not a good signal on liquidity of the bank if it continues to keep non-profitable asset, it will slow down its profitability hence its performance. Based on standard deviation, the analysis also shows that I&M Bank has a higher level of dispersion and high rate of instability with a standard deviation of 8.7 than Bank of Kigali standard deviation of 5.7.

The loan-to-deposit ratio (LD) shows the ability of a bank to use the customer's deposit in offering loans. Based on the mean measure, table shows that Bank of Kigali with average LD of 73.5% is able to use the customer's deposits to offer loans more than I&M Bank with average LD of 60%. Again, a high ratio reflects a lower level of liquidity. On the other hand, and based on standard deviation and coefficient of variation, this table indicates a high dispersion and instability levels of this ratio in I&M Bank with standard deviation 10 than Bank of Kigali with standard deviation of 7.

The ROAE measures the average contribution of net income per a 1 Rwf invested by the firms' stockholders; a measure of the efficiency of the owners' invested capital. The study found the mean score of 26% of net income which returns to shareholders investment in I&M Bank with a standard deviation of almost 4 while 21% of net income return to investors of Bank of Kigali with a standard deviation of 2. This means that during six years

ago, investment in Bank of Kigali returned small amount comparing to I&M Bank, but it is also much secured in terms of instability and dispersion due to the lower value of its standard deviation of 2.3 for Bank of Kigali comparing to 3.8 for I&M Bank. The stability is good signal for the security investment in future. This means that Bank of Kigali should attract more investors to invest in their money by using its low standard deviation than I&M Bank even if it could return a high dividend to its shareholders than Bank of Kigali.

ROA indicates how profitable a company is relative to its total assets. The higher the return, the more efficient management is in utilizing its asset base. Based on this, Bank of Kigali with average ROA of 3.8 percent, it seems to have a good management which is employing the bank's total assets to make a profit more than it is done at I &M Bank with average ROA of 3.4 percent.

Sustainable growth tells us how fast the firm can grow, without increasing financial leverage (Adam, 2014). This means that it the growth by considering that resources a company are finite and that the rate of resource depletion must be slowed in order to have long-term growth. So, based on the results appear in the table above, Bank of Kigali is able to continue operating and expansion on its retained earnings up to the rate of 21% rather than 10% for I&M Bank. This means that, I&M Bank seems to be not stable enough on its side of equity source of finance as it cannot resist as its competitor in case their Debt level remained constant. In that case, Bank of Kigali can resist two times the period I&M Bank can resist. As a conclusion, without increasing the leverage, Bank of Kigali can financially grow fast at the rate of 11% more than I&M Bank.

Internal Growth Rateis the highest rate a business can increase or expand but not considering or not using the external sources of funding. It indicates the growth produced by cash flows retained by the firm. The highest rate of internal growth shows that a given firm is capable to reach high financial level without external sources of funding (Adam, 2014). Based on the result from the table above, Bank of Kigali with IGR of 2.8% is stronger internally in finance than its competitor I&M Bank with IGR of 1.7% as it can grow or expand its business at 1.1% more than I&M Bank without using any external fund either equity or debt.

10   a) Correlation

The results show that debt level has a significant negative correlation to Liquidity of I&M Bank with -0.915 and -0.603 Pearson correlation value for DR to LD and LA respectively, and -0.181 and -0.535 Pearson correlation value for DER to LD and LA respectively, contrary, to Bank of Kigali, Debt level has a significant weak positive correlation with its liquidity with Pearson correlation value of 0.055 and 0.015 for DR to LD and LA respectively and Pearson correlation value of 0.061 and 0.095 for DER to LD and LA respectively. This explains that if I&M Bank continues to raise the level of debt, the consequence will be poor liquidity position as cash will be utilized to pay interest on debts. On the other hand, it means that when I&M Bank is highly liquid, it seems to lower debts as the need to raise short-term debt finance is low, the high liquidity could be used to gradually decrease debt levels. For Bank of Kigali, the weak correlation appeared is explaining that the debt level has a relatively weak effect on the liquidity means that bank's operations are funded by the larger portion of another source of funds rather than borrowings. This would be a good sign to Bank of Kigali than to I&M Bank if the costs of those extra sources of fund are cheaper than borrowing funds. These giving rooms for further researches to investigate on the cost of the source of fund.

11   b) Regression analysis

Regression analysis has been conducted by using Time series data in SPSS 16 to test the research hypothesis. The impact of debt level on financial performance was determined with a cross-section fixed effects model. Debt level on Profitability: Recall that ROE refers to the rate measures on return on the own ship interest (shareholders' equity) of common stockholders. It shows how well a company uses investiment funds to generate the growth of earnings.

For I&M Bank, an R-square of 0.614 and an adjusted R-square of 0.52 meaning that 52 % of the variance in ROE can be explained by variations in debt level. Durbin-Watson statistic is 2.20 meaning that the data are acceptable because the results are indicating no auto correlation. The strength of corresponding of regression refers to the value of the F-statistic which is 5.30 and significant. For Bank of Kigali, the debt level has a strong effect to ROE by 81 percent of R^2 and 69 percent of Adjusted R^2 with no autocorrelation in the model. If the debt results in increased earnings, the return on shareholder investment is exponential. However, increased debt favors ROE during boom times but hurts ROE during recessions. Based on this, we can confirm that Bank of Kigali is in boom period rather than I & M Bank.

According to Mazen (2014), his study underlined that debt has no influence on profitability either in a linear way or in a non-linear way. But, the results of these two models contradict Mazen's findings for instance, 1% change for DR, provokes an increase of 12% to ROAE of Bank of Kigali and 2.1% to I&M Bank and an increase of 1% for DER could make a raise of ROE up to 8% for Bank of Kigali and 4.4% to I&M Bank. The result is also in contradictory with Abor (2005) who found that negative impact of long-term debt on ROE, but a positive impact from short-term debts. Arbiyan and Safari (2009) also had identified negative impact of financial liabilities on ROE for 100 in Iran. This study strongly agrees with Hadlock and James, (2002) through their study on undervalued firms where they a relationship between use debt finance and firm performance. Similarly, Holz (2002) found that the rising liability-asset ratio in the determination of profitability is significantly positive

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with debt enabling firm managers to finance their project and maximize the performance. Debt level on Return Average Asset: Return on assets shows how profitable a company's assets are in generating revenue. ROA is one of the most widely used profitability ratios because it is related to both profit margin and asset turnover, and shows the rate of return for both creditors and investors of the company. ROA shows how well a company controls its costs and utilizes its resources.

Multiple regressions were conducted to examine whether debt level could impact on overall profitability as ROA level of I&M Bank and Bank of Kigali. The result obtained from the regression equations show a significantly positive relationship between Debt level and ROA of two commercial banks under the study. The overall model explained 63 percent changes to ROA of Bank of Kigali are from Debt financing comparing to 54 percent changes from I&M Bank. The Durbin-Watson values of 2.24 and 1.91 indicate that there is no sign of autocorrelation. Hence debt fund is spent to increase production of banking products and it leads to significantly increased revenues, therefore, the increased debt increases ROAA, it's meaning that Bank of Kigali uses debt to invest the borrowed funds in the profitable project than I&M Bank does.

12   I&M Bank

Bank of Kigali ROA = 21.717 + 0.24 DR + 0.008 DER + μ it ROA = 3.23 + 0.16 DR + 0.748DER + μ it

The output shows that debt level has a positive impact on return on asset and statistically significant at 5% (P=0.000<0.05) meaning that the increase of debt level will weakly increase the ROA. For instance, an increase of 1% on DR explains an increase of ROA up to 0.24% for I & M Bank and 0.16% for Bank of Kigali. This study is in conformation with Ross (1977), revealed that the increasing leverage by taking debt enables the firm to have positive implications on firm performance. Contrary to the results of Abor (2007) which is all the measure of capital structure including debt to equity and Debt ratio have a significantly negative impact on ROA. The increase in long-term debt will lead to a decrease in ROA because of the higher cost of interest compared to short-term debt (Abor, 2005). Also Sabin & Miras (2015), investigate the impact of debt level on firm profitability (ROA) and found that the increase in debt fund significantly reduces the net earnings of firms and effect on the profitability of companies and it becomes more severe with high debt level as expenses increase and profitability decreases.

13   Debt level on Liquidity:

The loan to deposit ratio is used to calculate a lending institution's ability to cover withdrawals made by its customers. A lending institution that accepts deposits must have a certain measure of liquidity to maintain its normal daily operations. Loans given to its customers are mostly not considered liquid meaning that they are investments over a longer period of time.

Liquidity performance measures the ability to meet financial obligations as they become due and is crucial to the sustained viability of banking institutions. The regression output shows that debt level is statistically insignificant to LD of Bank of Kigali due to the p-value of 0.130 which is greater than 0.05. Contrary to I&M Bank, the result shows that debt level is statistically significant (P-value of 0.000 < 0.05) and positively influence the LD. These are explained by the fact that 1% change of DR would result to 43% of LD and one percent increase on DER will increase about 14% of LD. The Durbin-Watson values indicate that there is no autocorrelation (2.24 for I&M Bank and 1.790 for Bank of Kigali). Based on the positive significance found on the side of I&M Bank, we could say that the bank borrowed money are reloaned at higher rates so that I&M Bank is no longer only relying entirely on its own deposits. This contradicts with the findings of Sarlija and Harc (2012) that the increase in debt-to-equity ratio will reduce firm liquidity. On another hand, bank use the customers' deposit to create credit where bank profits by borrowing at one rate of interest and lending at a higher rate. The customer deposits are the cheapest source of funds for a bank, therefore, if 75% of changes on LD are explained by debt level, it means that 25% are explained by customer deposit. This is not a good signal on financial health of I &M Bank because in the case of bad debt, I&M Bank will lose money lent and in addition it will be obliged to repay its creditors the loan which was reloaned to its bad debtors. For health, must keep down that excessive influence of debt level to LD in order to become illiquid in near future. Debt level and Loan to Asset Ratio: Debt level is statistically insignificant to LA for both I&M Bank and Bank of Kigali as the P-values are 0.620 and 0.052 and all are greater than to 0.05. The conclusion is that Debt level has no statistical influence on LA of both I&M Bank and Bank of Kigali. Generally, liquidity problems are solved by the debt fund or equity fund or even combination of the both. But based on the analysis results, it seems that another source of fund like equity financing is used to solve the issue of liquidity in the commercial banks under the study.

14   c) Debtlevel and Sustainability Debt level and Sustainable growth rate (SGR):

Sustainable grow this the rate of growth that is most realistic estimate of the growth in a company's earnings, assuming that the company does not alter its capital structure. The results shows that the combined influence of indicators of debt level is statistically not significant to SGR of both I&M Bank with P-value of 0.120 which is greater than 0.05 and Bank of Kigali with P-value of 0.450 also greater than 0.05. Debt level to the internal

growth rate (IGR): Debt level is not statistically influencing IGR for both I&M Bank and Bank of Kigali since the P-values are 0.077 and 0.351 and all are greater than to 5 %.

15 d) Hypothesis testing

The interpretation is relying mostly on correlation effect and significances. Correlation effect indicates the sense and direction of the relationship between variables where Significance indicates the statistical significance and acceptance and it helps to show the eligibility of independent variables to predict variation in dependent variables. Based on findings, there is an existence of a relationship between debt level and financial performance for I & M Bank a Bank of Kigali. Hence the correlation effect appears on LA, SGR and IGR are statistically not significant (P-value of both I&M Bank and Bank of Kigali are greater than 5%) and automatically it was ignored, the existed relationship between debt level and financial performance is positive due to the fact that the correlation effects are significant and positive for all of two commercial banks under the study. From these, the null Hypothesis is rejected as the existence of the relationship between debt level and financial performance for I &M Bank and Bank of Kigali where detected. These findings are in confirmation with Holz (2002), found that the rising liability-asset ratio in the determination of profitability is significantly positive with debt enabling firm managers to finance their project and maximize the performance. Similarly, Dessi and Robertson's (2003) study on debt, incentives and performance found a positive correlation between debt and firm performance. About the strength ness, Bank of Kigali profit more from debt financing, especially on ROA where 63.5% of variation explained by borrowed funds, means that the effectiveness and efficiencies use of borrowed fund in the profitable asset is more than it is done from I&M Bank and about the sustainability, Bank of Kigali is very stable than I&M Bank where the results shows that if Bank of Kigali continue to earn the ROE of 21% And 25% for I&M Bank, the expansion and growth of Bank of Kigali will be 11% more fast than it is on I&M Bank.

16 Financial

17 e) Findings

The first part was financial effect situation analysis of debt level to profitability in terms of ROAE and ROAA. The regression output indicated the statistical significance and positive correlation due to the P-value of 0.000 ? 0.05 appeared for all banks under the study. About the financial effect, it was come into view that ROAE of Bank of Kigali is highly positively affected by debt level with R square of 81.3 percent comparing to 61.4 percent of I&M Bank. Means the use of borrowed funds benefit more shareholders of Bank of Kigali than I&M Bank. For the ROAA, the results shown the same significance and correlation as on ROAE,

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Volume XVII Issue II Version I Year ( ) C therefore, Bank of Kigali with R square of 90% is using borrowed fund in profitable project than I&M Bank with R square of 63%.

The second part was on effect analysis of debt level to liquidity in terms of LA and LD. Analysis output shown the statistical insignificance of debt level to LA for both I&M Bank and Bank of Kigali with P-value of 0.620 and 0.052 which are greater than to 0.05 this means that the debt level in terms of DR and DE is not a good statistical predictor of LA. However, debt level is only statistically significant to LD for I & M Bank with P-value of 0.000 ? 0.05 and positive effect level of 75%. These indicate that liquid assets of I&M Bank are highly financed by borrowed funds which dispose the bank on risk of become illiquid in case bad debt whereas Bank of Kigali is remain insensible the use of debt fund to solve liquidity issues.

The third part was to assess the effect of debt level to the financial sustainability of commercial banks under the study in terms of SGR and IGR. The results shows that the debt level indicators used in this study are not good predictors of variations on both SGR and IGR. This was explained by the P-values greater than 5% as shown in tables above. So that, the sustainability levels of both I&M Bank and Bank of Kigali are not affected by the level of borrowed funds.

19 VI. Conclusion and Recommendations

20 a) Conclusions

The analysis done so far have been related to the analysis on the effect of debt financing on the financial performance by comparing the commercial banks in Rwanda, BK and I&M banks. The results obtained from research models showed there is a significant positive relationship between debt level and financial performance. The results indicate that the overall bank performance in terms of profitability, sustainability and liquidity has been improving since 2010 up to and including 2015. The findings show that both banks are financially viable as both have used the appropriate financial tools and policies to manage their organizations and to adapt with their environment, to become more competitive and maximizing their profits.

The study further concludes that profitability increases more with the control variables that are DR and DE for Bank of Kigali than I&M Bank and the liquidity shows that I &M Bank is positively sensible with Debt level than Bank of Kigali. Therefore, debt level will positively impact on firm financial performance. For more

clarification, the study showed that debt level has positive impact on firm profitability referring to ROE, and ROA the case of Bank of Kigali with R-square of 81.3% more than it is on I&M Bank with R-square of 61.4%. It means that the high debt level has been used in profitable projects; High positive effect will result to bank profitability that directly will raise the level of firm financial performance. Also the research results showed that the liquidity of a bank, which is reflected in the ongoing ability to pay financial obligations, affects the bank's capital structure for the case I&M Bank rather than Bank of Kigali.

The results also shows how Bank of Kigali is stable than its competitor I&M Bank on the side of sustainability where it can financially grow fast than I&M Bank whether by relying only on their retained earnings or only on their internal sources of fund. It is important to emphasize the importance and role of money in the liquidity. Money or its cash equivalent, which are used for paying obligations, seems to be the best indicator of liquidity for commercial banks. This explained by the fact that the Null hypothesis is not accepted hence the existence of the influence of debt financing to the financial performance was discovered and statistically justified among commercial banks under the study and these confirm the achievement of research objectives as ROE, ROA, SGR, IGR, LA and LD are used as indicators of financial performance in terms of profitability, sustainability and liquidity and on other side DR and DTE are used as indicators of debt level. All of these indicators were the node of the research results and conclusion.

21 b) Recommendations

From the analysis done, we recommend the following:

? It is very crucial to managers of business to learn and use the optimal capital structure in order to balance their source finance efficiently. ? In order to maintain liquidity, and thereby influence on the capital, company managers must be aware of the importance of managing liquid assets. ? Companies have to maintain good networks and collaborative relationships with financial companies for the sake of future fundraising, by regarding their wish to pursue equity or debt issuance. ? For researchers who have a willing to pursue this area of the study, I recommend them extend their scope so that they can be expanded to investigate debt level in different context such as analyzing the impact of debt level on cost of capital and its impact on firm performance. ? The study recommends that further research should be on capital structure, industry pricing, and firm performance since a capital structure is influenced by the industry valuation.

Finally, we have tested the hypothesis which states that there is no relationship between debt level and financial profitability for commercial banks under the study. Based on results, we found that there is positive relationship and consequently, we rejected the null hypothesis.

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