



## CROSS LISTING OF PUBLIC COMPANIES AND FINANCIAL PERFORMANCE THE CASE OF RWANDA STOCK EXCHANGE

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### Abstract

This research investigated cross listing of public companies and financial performance at Rwanda Stock Exchange with special reference to three cross listed companies or banks namely Bank of Kigali, Kenya Commercial Bank and Equity Bank Rwanda Limited within the period 2016-2021. The study is important to the scholars, researchers, policy makers and practitioners of Rwanda Stock Exchange along with cases study companies. The study was a survey design conducted through mixed methods. The population of the study was comprised of five (5) public companies that cross listed their shares on Rwanda Stock Exchange whereby three (3) companies with 32 respondents participated in the study and were selected using purposive method. Questionnaire and interview were used to collect primary data whereas secondary data collected from NBR reports along with financial reports of case study companies. Numerical data collected from the field were statistically analyzed using SPSS version 22.0 while qualitative data were analyzed through content analysis and ratio analysis for financial reports. Descriptive statistics were used to summarize data, inferential statistics for making predictions about population, and correlation and regression analysis for exploring relationship between variables. The research findings revealed

that Bank of Kigali had a ROE of 19.01% that is better figure compared to the 14.4% for average banking sector in Rwanda while Kenya Commercial Bank and Equity Bank Limited had a lower ROE as 8.64% and 7.7% respectively which is unfavorable compared to the average banking sector of 14.0%. Share prices has generated overall mean of 3.635 which is fairly strong, however on Rwanda Stock Exchange, foreign public companies do not trade well compared to local one's. Overall, market capitalization has scored a mean of 3.149 that is relatively strong, however it was found that there is no added beneficial impact of being listed on Rwanda Stock Exchange due to the stock market that is relatively inactive because many equities investors want to keep their shares. Based on the research findings, the study concluded that there is a significant effect of cross listing on financial performance of cross listed companies. Regulators of listed companies were recommended to reform the rules and regulations and proper assessment to ensure the company wishes to be listed is financially sound while listed companies need to always disclose all the relevant financial information to investors.

**Keywords:** Cross listing of public companies, financial performance and Rwanda Stock Exchange.

### Introduction

In modern economy, stock market exchange is an important factor to acquire funds from investors to support both companies and governments investment projects and increase the size of institutions as well (Jareño & Negrut, 2016). Stock markets play a fundamental role in the development of any country's economy as a platform for capital

formation and economic growth through buying and selling of financial securities. A number of studies show that a well performing stock market is an important aspect to the performance and development of economic activities (Anita & Yadav, 2014).

Nurlaily, Suhadak and Rahardjo (2013) consider financial performance (FP) as a tool that company can use to measure its achievements through capital structure, accountability for the results of policies, operations and activities and ability to generate a profit in a given period of time. Financial statements such as comprehensive Income statement, the balance sheet and the cash flow statement are common measures for financial performance (Obala&Olweny, 2018).

Abdullahi, Fakunmoju and Ibrahim (2019) argue that a developed stock market with a secured finance promotes economic growth through mobilization of domestic and foreign capital. This encourages investment and economic activities through access to low-cost capital by public companies.

Today, the stock market is an attractive investment alternative for foreign and local investors (Anwaar, 2016). In Global perspective, European Union Securities Markets (EU Securities Markets, 2020) reports an outstanding growth for both equity and bond markets. For example, the stock market has risen to a volume of more than EUR 180 trillion with a share of 14% in the global equity market capitalization.

However, globally due to Covid-19 pandemic, most countries have been affected economically, especially financial market. For instance, Cox, Greenwald, and Sydney (2020) their report indicated that S & P 500 (Market-capitalization-weighted index of the 500 largest U.S. publicly traded companies) their stock market index decreased by 33.7% of its value between February 19 and March 23 of 2020. In addition, U.S. corporations declined in share values by 20% since the middle of March 2020, that is the same case to the China stock price declined up to 50%, and Nikkei (Tokyo Stock Exchange), prices of companies' shares has been falling significantly during the pandemic (Machmuddah, Utomo, Suhartono, Shujahat & Wajahat, 2020). European stock market is the second largest markets worldwide behind the U.S. The market accounts 430 trading venues for equities and bonds across the European region.

Report shows € 120bn equity issued by 2020 that is approximately greater deal value than 2018 and 2019 (EU Securities Markets, 2020). Moreover, United Kingdom (UK) continues to be most European active stock market thereby its listing venues in terms of IPO (Initial Public Offering) issued 24% of the volume. Others active European stock exchange after UK include the Netherlands, Norway and Poland (Deloitte, 2020).

Unlike U.S and Europe, financial market in African lacks recently data unless a continental survey 2017 reported by Jena Economic Research Papers. The report showed that African stock market valued at

1.37 trillion USD in terms of total market capitalization lead by South Africa accounts for over 1 trillion USD, followed by Namibia amounted to 97.5 billion USD and thirdly Morocco' stock market with 58.5 billion USD (Schierreck *et al.*, 2018).

While in the West African region' markets (The Gambia, Ghana, Ivory Coast, Liberia, and Nigeria) stock market development indicators; like ratio of market capitalization to gross domestic product, All Share Index, and Stock Turnover have positive effect on economic performance (Abdullahi, Fakunmoju & Ibrahim, 2019). In the context of East Africa, there are five (5) markets which include Kenya, Tanzania, Uganda and Rwanda that reports total equity worth 36.4 billion USD, 116 total companies listed. The region' financial market is heavily dominated by Kenya account for 18.5 billion USD approximately 50% of total market value of the region' market (Schierreck *et al.*, 2018).

Rwanda Stock Exchange (RSE) was established in 2011 given a mandate to organize Rwanda stock market and supervised by Capital Markets Authority that report to MINECOFIN. Before 2011, it was worked as Rwanda over Counter Exchange with two (2) cross-listed companies (KCB cross listed on 18<sup>th</sup> June 2009 and NMG registered on 2<sup>nd</sup> November 2011) however, due to the creation of RSE a number of foreign companies joined the market have been progressively raised up to five (5) companies (Muheirwe, Memba&Kule, 2015, RSE, 2020).

Currently, there are five (5) companies that listed their shares on the RSE Market, out of them five(5) include Bank of Kigali, Crystal Telecom Rwanda, Bralirwa, Cimerwa and I and M Bank Rwanda Ltd are locally listed companies and the rest are cross listed mostly from Nairobi Stock Exchange in Kenya such as Kenya Commercial Bank (KCB), Nation Media Group (NMG), Equity Bank Group Ltd (EQTY), Uchumi (USL) except RH Bophelo Ltd from South Africa and listed on Johannesburg Stock Exchange (JSE)(RSE, 2021).

Concerning performance of RSE, there is no updates information published by regulatory body, though, Capital Market Authority report (CMA 2017) indicated a low performance in market value where share prices decreased by 16% and shares traded was valued at Rwf19.3 billion, and government of Rwanda issued four (4) treasury bonds worth Frw50 billion (CMA, 2017). Market capitalization showing the total value of all listed companies also dropped to 2%, however World Bank, (2020) reported a market capitalization worth at 3,214 million\$ and RSE' website shows a market capitalization of Rwf 3.436 trillion based on daily update as 31<sup>st</sup> December ,2021 (RSE, 2021).

One of the objectives of cross listing companies 'shares is to improve financial performance through

gaining foreign market. For instance, in this line, Stock Market MBA indicates 548 global non-U. S companies cross-list their shares on U.S Stock exchange (Stock Market MBA, 2021). On Rwanda's stock market, Rwanda Stock Exchange (RSE) accepted the first cross-listed company in 2009 that was Nation Media Group (NMG) but now a number has been progressively raised up to five (5) companies.

Four of them originated from East Africa specifically on Nairobi Securities Exchange; except RH Bophelo Ltd from South Africa and listed on Johannesburg Stock Exchange (JSE).

In Rwanda's context, Rwanda's stock market has been dominated by big firms. However, over the past decade, there was a continuous dominance of locally listed companies in trading shares. This is also the same scenario on the regional market. For instance, Anyanzwa (2019) it was observed by several analysts that Eastern African companies are not interested in cross listing their shares on regional markets like before due to exchange rate risks and low volume of trading in shares. Local companies such as Bralirwa, Bank of Kigali, Crystal Telecom and I & M Bank. Cross listed companies did not trade much (Gahigi, 2020).

In the context of Rwanda's growing financial market, cross listed companies are assumed to benefit from increased exposure and access to a larger capital market. However, preliminary observation suggests that cross listed companies in Rwanda may not be perform well as locally listed companies. This issue raises concerns about the efficacy of cross listing as a strategy for companies. The problem, therefore, lies in understanding why, despite, the theoretical

## Review of Literature

### Conceptual Review

#### Cross Listing of Firm

According to Onyuma, Mugo and Karuiya (2012) cross-listing is when a public company involves its shares in any foreign country 'stock market exchange other than its home stock exchange. This implies that firm publicly lists its shares on at least two stock exchanges from different countries. Analysts commonly agreed that the major implication of cross-listing on firms is enhanced firm value (Makanga & Wangiku, 2014). International cross listing in the large stock exchanges such as the NYSE, NASDAQ, TSX, LSE, FSX and Euro-next is mainly motivated by increase of firm value (Berg, 2012; Dodd, 2013; Cetorelli & Peristiani, 2010).

Researchers conducted on cross listing revealed impact of cross listing shares on firm' value. In this line, for example, a study of Cetorelli and Peristiani (2015) showed that cross listed companies have a considerable impact on firm valuation. Additionally, those firms that choose listing their shares on

advantage of cross listing such as, enhanced visibility and investor base diversification; these companies are not achieving expected financial outcomes when compared to their purely local counterparts. Consequently, this is the cause to undertake research that assesses cross listing of public companies and financial performance, the case of Rwanda Stock Exchange.

### Research objectives

The general objective of this study is to investigate the effect of cross listing on financial performance of public companies listed on Rwanda Stock Exchange

#### 1.3.2 Specific Objectives of the Study

- [1.] To assess the effect of cross listing of firm (market share, firm size and age of the firm) on return on equity of public companies in Rwanda
- [2.] To analyze the effect of cross listing of firm (market share, firm size and age of the firm) on share prices of public companies in Rwanda
- [3.] To analyze the effect of cross listing of firm (market share, firm size and age of the firm) on market capitalization of public companies in Rwanda

### Research hypotheses

**H<sub>0</sub>1:** Cross listing (market share, firm size, age of the firm) does not significantly affect Return on Equity of public in Rwanda.

**H<sub>0</sub>2:** Cross listing (market share, firm size, age of the firm) does not significantly affect share prices in Rwanda.

**H<sub>0</sub>3:** Cross listing (market share, firm size, age of the firm) does not significantly affect market capitalization of public in Rwanda.

foreign stock market which is also influential markets compared to their own domestic market achieve significant valuation for the five years after the listing (Cetorelli & Peristiani, 2010)

A study of Al-Nasser and Ioannidis (2018) consisted of daily data for 1165 firms from 47 countries that have cross-listed on the US equity markets over the period 1976/2007 found that publicly quoted firms cross-list when exhibiting strong performance in their domestic market and wish to take advantage of this situation. After cross-listing, this advantage disappears. In African economy, South Africa is a leading market with \$ 2,195,502 million (World Bank, 2020), In Rwanda's perspective, RSE has a market capitalization of Rwf 3.436 trillion considering daily update of RSE (RSE, 2021).

In general, cross listing occurs when public companies trade their share on the foreign stock exchange. Companies look for cross listing on the international stock exchange with the aim of increasing company value. Public companies

decided to penetrate the foreign market when experienced a strong performance on the local market.

#### **Market Share and Firm Performance**

Hsu (2022) defines market share as the proportion of the total quantity or dollar sales in a market that is held by each of the competitors. Literature generally views market share as an indicator of the success of a firm's efforts to compete in a product marketplace (Varadarajan, 2020). From this perspective, market share is an outcome of firm sales revenue (Bhattacharya, Morgan, & Rego, 2020).

Ratnatunga (2020) it is important to keep monitoring market share movements by the fact that even as all the internal marketing ratios of a firm are favorable, a company could still be losing ground when compared to the competitors, due to the market as a whole growing faster than the firm. A company may in these circumstances see its market share falling despite a high performance against standard. Therefore, in order to adjust performance standards considering the influences of the external environment, a controller must track the company's market share. Many firms use market share to set goals and monitor marketing performance, and it is also widely used in research examining marketing's performance impact (Katsikeas, *et al.*, 2016).

Some researches attempted to link market share and financial performance. Forth (2018) revealed a significant positive relationship between firm's market share and its economic performance and identifies some contingencies affecting this relationship. A study of Feeny and Rogers (2011) found that when market share increases above 30% profitability rises, other researcher while market share of a firm does not appear to have any significant linear association with profitability. Ifurueze, Bingilar and Etale (2016) revealed that market share to have positive relationship with profitability (PAT) of the banking sector in Nigeria.

Market share is one of indicators showing the company's efforts to sustain its product on the marketplace as a result of sales revenue. It is wisely to monitor market share movement comparing with competitors rather than using internal marketing ratios given that the industry may grow more rapidly than the company.

#### **Firm Size and Firm Performance**

Shis (2014) and Kengere *et al.* (2020) defined firm size as the carrier of firm production and business activities. Moreover, Jiang (2003) pointed out that firm size is the employees per establishment, sales per firm, and value added per firm. Firm size is one of the core problems of modern enterprise theory; enterprise size still plays an important role in the

study of enterprise growth (Wang, 2011). Two kinds of criteria for enterprise scale classification in the theoretical field: qualitative index and quantitative index, qualitative division is mainly defined from four aspects, the degree of enterprise autonomy, the degree of ownership concentration, the management mode and the status of the industry; quantitative division is mainly carried out from the aspects of the number of employees, assets and sales income (Shi, 2014). In the previous related studies, firm size was measured by firm's total assets, net sales, and the number of employees.

Firm size has always been an important factor to determine a firm's profitability, to improve performance and competitiveness in the market, a company would always try to increase its size (Opeyemi, 2019). Despite the argument, Kengere *et al.* (2020) argue that smaller firms while taking the risk to expand may outperform larger firms at some point even though this is not always the case.

Big firms enjoy a bigger market share, and have more opportunities to make profit, thus, when there is competition, big firms often outcompete small firms. Furthermore, because of the abundant resources they possess, they are more possibly to get into those fields that require high capital rates. The chances for big firms to work in fields that are more profitable are higher (Doğan, 2013).

Although larger size may bring more profit, some companies are experiencing a decline in profitability on a yearly basis with their size growing larger (Oyelade, 2019). The size of a firm affects performance in many ways. Key features of a large firm are its diverse capabilities, the abilities to exploit economies of scale and scope and the formalization of procedures (Wang, 2011). Various studies indicate a strong relationship between a firm's size and its financial performance. Olawale, Ilo, and Lawal, (2017) and Cuong, Tuongand Binh (2021) their findings revealed that firm size in terms of total assets have significant effect on performance, while in terms of total sales, firm size has a positive effect on the performance non-financial companies and total assets found to be the biggest factor determining the firm performance. Meiryani, Olivia, Sudrajat and Zaidi (2020) found no effect of firm's size on firm's financial performance which in terms of return on assets and market book value. Kuncová, Hedija and Fiala, (2016) established that the larger firms reached higher economic performance compared with smaller ones. Sritharan (2012) indicated a positive effect of firm on profitability measure of return on assets (Sritharan, 2012).

Firm size can be measured in quantitative index or qualitative index. In qualitative index firm size is seen in enterprise autonomy, ownership

concentration, the management mode and the status of the industry while in quantitative index firm size is evaluated from the aspects of number of employees, assets and sales income. Firm size is an essential factor to determine firm performance and to be competitive in the industry, that is why most firms always look the way to increase its size in the market.

#### **Age of the Firm and Firm Performance**

Ilaboya (2016) defined a firm's age as the number of years of incorporation of the company. Although some argued that listing should be used to define firm age for the reason that listing is more economical, and because a company's life starts from the moment of listing (Shumway, 2001). Others refuted this argument by stating that a company is born through incorporation as a legal person (Gitzmann, 2008).

In Wang's (2011) research, he defined firm age as the number of years that the enterprise has experienced from its establishment to the point of investigation, while if the enterprise dies at the point of investigation, it is also called the life of the enterprise. The age of a firm contributes to economic growth in a different way, through product and/or process innovation, different paths in terms of exports or distinct sorts of occupations and job requirements. In this new perspective, firm age is more than a control variable, and the opposition between young and old firms in itself deserves reconsideration as age is continuous and not a discrete variable. A significant number of cases, firm survival is observed only because these firms were born one year before or after a certain event that produced massive exits in an industry (Loderer, Stulz & Waelchli, 2017).

A number of studies have indicated that firm age is an important determinant of firm growth, with younger firms growing faster than older firms (Haltiwanger *et al.*, 2013). Coad (2014) also suggests that older firms may benefit from their greater business experience, and therefore have a higher degree of growth persistence than younger firms. Sales growth for new ventures is characterized by positive autocorrelation, whereas it turns increasingly negative for older firms. Özkan and Mehmet (2018) argue that until a certain age the younger firms earn a higher profit than older firms; however, after a firm reaches a certain age then older firms begin earning more profit than younger competitors. Consequently, throughout these literatures it is indication of relationship between age of the firm with financial performance (Özkan & Mehmet, 2018; Kengere *et al.*, 2020).

Age of the firm indicates a number of years when a company is incorporated, however other scholars agree listing to be used in defining firm age since

listing is economic factor. Some researchers argue that company's life begin when it is listed although other scholars believe that a company is born from when incorporated as a legal person. A number of studies revealed a significant relationship between age of the firm and firm performance. In some cases, younger firms grow faster than older firms, however the business experience of older firms helps them to grow with persistence than younger firms.

#### **Financial Performance**

Noveu (2012) defined financial performance as a way of measuring the outcome of policies and operations of organizations in monetary terms for a determined period of time. Naz, Ijaz and Naqvi (2016) noted that financial performance mainly reflects business' outcomes that indicate how an entity utilizes minimum resources to maximize profitability and shareholders' wealth.

Mirza and Javed (2013) defined performance of firms as return on investments and financial profitability are very important for investors, stakeholders and country's economy as a whole. Regardless of the type of a company, financial performance measurement is a key priority in all economic decision making of the company (Chashmi & Fadaee, 2016).

The financial performance of firm involves the analysis of financial statements especially return on investment, return on assets and value added. Usually, the analysis of financial statements helps stakeholders mainly managers, investors and creditors, to make a useful judgment and decision about the current financial health status of the company (Noveu, 2011).

Hermuningsih (2020) describes financial performance of a company as a degree on which an organization accomplished its operations in accordance with set criteria, standards and targets. The common financial indicators applied in financial performance include return on assets, return on equity and price earnings ratio. Company financial performance is conducted for numerous purposes related to some activities such as lending, mergers, ownership in companies, company takeovers by other parties, etc.

Investors draw attention to financial performance of a company in making decisions for their stock investment. For this reason, companies are required to maintain improved financial performance to make stock exist and attract interest of investors (Muthalib & Irfandy, 2018).

Financial performance determines the results of policies and operations of the company in the form of money within a particular period of time. Financial performance focuses on minimum use of a company resource to generate maximum

profitability as a way to improve shareholders' wealth and attract new investors. Financial performance involves the analysis of financial statements to help stakeholders to make a useful decision about financial conditions of the company.

#### **Determinants of Financial Performance in Rwanda**

Mauwa (2017) mentioned four factors determining financial performance in Rwanda for firms listed on the Rwanda stock exchange:

**Dividend Policy:** refers to the company's financial policy that deals with cash dividend, whether to be paid in the present or paying an increased dividend in the future (Malkawi, Rafferty & Pillai, 2010).

Dividend policy also includes company's information for both present and future performance, decision regarding a distribution of cash or cash flow to the stockholders (Adebisi & Lawal, 2015). In financial perspective, dividend policy remains one of the most contested issues (Malkawi, Rafferty & Pillai, 2010).

**Capital Structure:** capital structure explains the financial framework of a company as a means of debt and equity that is needed to finance the operations of the company. Capital structure is the combination of equity and liabilities of an organization that is used to finance its activities (Younas, 2014). Furthermore, each and every decision concerned with capital structure is particularly based on how much debt is required to increase the value of a company (Arulvel & Ajanthan, 2013).

During capital structure decisions, the main concern of a company is to minimize the cost of capital in order to maximize the value of a company (Muhammad, Ammar & Muhammad, 2013).

For a company to be successful there is a need to maintain balance between equity and debt which is essential for companies return because it attached the level of risk of return, if a company debt is more than equity, company may fall in trouble of cash flows. Several financial analysts agree that there is no common way to conclude the accurate formulation of composition of capital structure; capital structure policy depends upon the company's economic factors (Faruk & Ayub, 2012).

**Corporate Governance:** corporate governance is described as a function of governing a corporation or business enterprise. Additionally, this concept is an essential function based on the best governing in the interest of its stakeholders. However, corporate governance is perceived differently in various countries. For example, United States (U.S) and United Kingdom (UK), corporate governance focuses on the shareholders' interests. For other countries such as France, Germany and Japan, corporate governance is not only the interest of the shareholders; it takes also a wider perspective of

stakeholders including employees and customers. A corporation that practices good governance achieves openness, fairness and transparency among stakeholders. This practice progressively promotes economic efficiency and contributes to value-enhancing activities and assists efficient allocation of resources. Consequently, this will be achieved through attracting low-cost capital, efficiency in employing organizational resources, meeting societal expectations and improve overall performance (Shamsher & Zulkarnain, 2017; Kengere *et al.*, 2020).

#### **Timely Interpretation of Information on Stock Market Listing:**

Theories explain financial market associates stock prices with information that is available to the market at any given time. Kumar and Sarma (2013) agree that stock prices are affected by all additional information in the market. Government policies data is consistently changed in the economic environment affect business activities, operations and their valuations. Information relevant to the economic environment for example inflation can be the cause to the changes in the stock market movements (Kumar & Sarma, 2013).

Tamuntuan (2015) in order to easily understand and be able to forecast a company's financial performance, investors need a simple way of using financial ratios.

#### **Return on Equity (ROE)**

Berman, Knight and Case (2013) ROE indicates a percentage of profit a firm makes for every monetary unit of equity invested in the company. This ratio is a useful indication to measure if a company is capable to produce attractive return in any risk investment may occur. Return on Equity indicates the potentiality of a company of providing attractive returns over long periods of time. However, looking on ROE only is not sufficient when making investment decision (Calamar, 2016).

Return on equity reflects efficient management of equity. This implies that a high ratio indicates efficient management of shareholders' equity. Return on equity is an important financial ratio for equity investors to measure the potentiality of firm's management to generate value for shareholders (Mainul, 2012).

Reddy and Narayan (2015) noted two types of return from investment notably capital appreciation and dividend. According to them, the common risks that affect these returns are macroeconomic variables and firm specific factors. Returns also can be affected by a number of risks happening within a country and relevant event occurring across the world. In the stock market, expectations of investor are earning known as stock return in form of profits made from traded shares or dividends which can be paid annually, semi-annually and quarterly. ROE

does not exactly show cash to be returned to the shareholders because that amount that is directly returned to stockholders will depend on company dividend policy and decision about dividend payments and on how much the stock price appreciates (Berman *et al.*, 2013).

Research conducted by Jensen Investment Management (2016) revealed Return on Equity (ROE) as a useful measure to discover companies' ability and potentiality to give pretty returns consecutively.

Kharatyan, Nunes and Lopes (2016) analysed financial ratios and indicators that drivereturn on equity in a company. Their study was based on a sample made up of 90 non-financial institutions that is components of NASDAQ-100 index. The research used eight ratios considered to have most impact on ROE including other indicators such as current ratio, price to book and price to earnings. The findings of the study revealed operating margin, financial leverage, asset turnover, tax burden and interest burden as the most indicators affecting ROE. In addition, findings showed that companies with higher ROE usually are believed to be more competitive than their rivals which make investors to take such competitive advantage because of believing higher returns from their investment.

Return on equity (ROE) is a ration indicating the capability of a company to make a return on investment in any circumstance. This shows how efficiently the company managed shareholders' equity. There are two types of return from investment which include capital appreciation and dividend. ROE does not necessarily mean cash to be given back to shareholders due to it depending on the company dividend policy. Factors that affect return on equity can be macroeconomic variables and firm specific factors. Researches indicate that companies with higher ROE attract more investors than their competitors because they expect higher returns.

#### **Share Prices**

According to Ruhani, Aminul, and Tunku (2018) share price is a monetary value of one share or the amount that cost to pay for one share in a company. On the stock market, the price of a share always varies depending on the market conditions. If a company performs well, the share price will rise, or fall if the company does not meet expectations (Ruhani, Aminul, & Tunku, 2018). When the stock market is working efficiently, investors draw effective measures to the performance of a company and its value (Adebisi & Lawal, 2015).

Various literatures attempt to exhibit a number of factors and variables that determine stock prices. For example, factors such as market demand and supply definitely play a great effect on share prices

of corporations that were publicly traded. Moreover, stock prices are always unpredictable on an irregular basis and expectations of buyers and sellers play a key role in determining stock prices (Sharif, Purohit & Pillai, 2015).

When there is an increase in demand for shares, it will raise the price of stock while, the lower demand for shares means a decrease of stock price. An increase in stock prices causes the creation of profits or capital gains, while a decrease in stock prices will create losses or capital losses. In the secondary market, the growth of share price is an important instrument that measures the value of a company, since an increase in share price it means that there is increased corporate value, and such increase is a sign of better public trust on the corporation believing that their investment will bring higher returns (Menaje, 2012).

Ruhani, Tunku, Aminul and Quddus (2018) among internal factors affecting stock prices include earnings, dividend, book value while external factors are interest rates, government regulations and foreign exchange rate. Changes in shares price take influence from various factors which include firm size, return on equity, price earnings, dividend received, book value per share and dividend per share (Sharif *et al.*, 2015). Other research findings revealed other variables such as age of the company, return of assets and debt ratio that could play a significant effect on stock price in the capital market (Tahtamouni & Al-Qudah, 2016).

Share price is the value or cost to buy one share in a company. In regard to stock market, the price of share changes due to market conditions. In addition, the performance of the company affects share prices. The common factors that determine share price are market demand and supply. There are also internal and external factors that affect stock prices.

#### **Market Capitalization**

Silviyani, Sujana & Adiputra (2014) and Kengere *et al.* (2020) describe market capitalization as the value of all shares outstanding on the stock exchange in at the closing price of the stock. In other words, market capitalization represents the market value or total market value of a firm's outstanding shares on a particular stock exchange in a given period of time. Calculation of market capitalization involves the total number of shares that companies sold times current market price of one share (Chen, 2019).

The key factors to determine amount of capitalization on a given stock exchange include the number of shares outstanding and the share value at closing (Menaje, 2012). In this situation, when market capitalization is higher, it means there are more movements of investors willing to buy or to

retain their shares owned because of high profits expected to be returned (Silviyani *et al.*, 2014).

Kuvshinov and Zimmermann (2018) reported statistical data on annual market capitalization across 17 advanced economies and showed that flow in market capitalization has to be described through changes in prices, not quantities.

Market capitalization, which is also known as total market value of a company indicates company worth on stock exchange in a given period of time. This is computed by taking the total number of shares that companies sold times current market price of one share. The most factors that affect market capitalization include outstanding shares and share value at closing. Variation in market capitalization is explained by share price.

### **Theoretical Framework**

#### **Signaling Theory**

Signaling theory is a useful theory to study relevant to stock markets, especially investments in shares. Signaling theory is related to investment and shares and it was first developed by Spence in 1973 and Ross (1977).

Signaling theory states that a company can have a positive signal if there are some important things in the company similar to an increase in dividends or repurchase of shares by investors. This signal indicates that the company has positive growth and development prospects and can provide increased profits for investors (Wronska & Bukalska, 2014).

Hartono (2013) described this theory as a way investors use to collect accurate information about the condition of the company as a basis for making investment decisions. According to Brigham and Houston (2006) companies with positive signals make investors feel more confident to invest which is contrary to when investors capture negative signals from the company will tend to reconsider their investment decisions.

#### **Materials and Methods**

Kumar (2011) describes research designs as a planned strategy to conduct a study in order to make a useful decision to the stated research questions or problems. This includes a summary of what the researcher will do starting from formulation of the hypotheses and their operational implications to the final analysis of data.

Therefore, this study is a survey design that was conducted through mixed approach as means of qualitative and quantitative approach. The researcher considered the secondary and primary data. Five cross-listed companies were used as cases studies. The researcher reviewed respondents' perceptions along documentary evidence. However, the researcher focused on the user units that have

Signaling theory is useful to this study that investigates share price as measurement of financial performance of public companies given that this theory describes signs of a wealthy company in terms of profitability. In addition, investors in shares could apply this theory to collect adequate information that helps them to make correct investment decision in a company that proves a good return in the long run. The theory suggests that companies cross list to signal their financial health and transparency to attract foreign investment. Using this theory, we can examine whether cross listed companies in Rwanda are perceived as more credible compared to locally listed ones and in this perception impacts their financial performance. This will help determine if cross listing effectively translates into performance outcomes in Rwanda's emerging market.

#### **Critical Review and Gap Identification**

Through empirical review, it seems that some researchers (Anwar, 2016, Sulong, Saleem and Zeeshan, 2018 & Kudawashe, Twoboy, Shoko, Dube & Nyon, 2020) assessed stock market and financial performance. Al Qaisi, Tahtamouni and Al-Qudah (2016) assessed factors that affect the stock market price. Others (Nuwagaba, 2015, Najeb, 2013) analyzed stock market performance in relation to economic growth. In addition, most of above studies are based on the stock market of Asian countries, therefore few studies focused on African context. Most studies also did not focus on cross listing aspect since they only concentrated on listing factor. Others (Muheirwe, Memba and Kule, 2015; Makanga and Wangiku, 2014; Cetorelli and Peristiani, 2010) investigated the stock market and performance of cross listed companies. However, there were no conclusive results that showed effect of stock market in terms of equity turnover (ROE), share price and market capitalization.

knowledge and experience of the stock market. In quantitative approach, the researcher used a descriptive survey design to summarize personal identifications of the respondents and assessing cross listing of public companies and their financial performance. In summary, the adoption of mixed approach in this research is due to it combining quantitative evidence from financial reports with qualitative insights from questionnaire and interview. This integration allows for a comprehensive analysis, offering both measurable data and deeper understanding of the about cross listing by using primary data from firsthand interviews and questionnaires and secondary data from financial reports. This is beneficial for the



study to enhance the reliability and depth of the findings.

### Target Population and Sample size

Mutunga and Gachunga (2013) defines population of the study as a set of individuals such as people, object, items and event sharing similar characteristics that the researcher wishes to investigate on and make conclusion about data collected from that particular group. This study considers five (5) cross listed companies operating in Rwanda such as Kenya Commercial Bank (KCB), Bank of Kigali (BK), Equity Bank Group Ltd (EQTY), Uchumi (USL) and RH Bophelo Ltd. The study looks at five (5) companies that make up the whole industry to understand how cross-listing affects their performance. By studying every company in this industry, we can get a clear picture of how cross-listing impacts firms across the entire sector. This approach helps avoid any bias that might come only from looking at a few companies and make the findings more relevant for the whole industry.

Kothari (2012) views sample size as a small number or a subgroup drawn from entire population to be tested and represent the survey population. Moreover, the purpose of sample size is to save resources which include time, money and related resources needed in the course of research. Sampling is the process and procedures to be used by the researcher in selection of the right elements from the given population. Consequently, this study adopted purpose sampling technique. Purposive sampling is a judgmental sampling where the researcher purposively selects a certain group or individuals for their relevance to the research. Purposive sampling is a non-probability sampling procedures in which the researcher uses his/her skills and makes judgment to select respondents that best meet the needs of his/her research study (Pamela, 2017).

Hence, for the current study, the researcher considered three (3) public companies that cross listed their shares on Rwanda Stock Exchange (RSE) whereby 32 individuals from those companies responded in the study. Selecting 32 individuals which include finance managers, treasury managers, dealer managers and portfolio managers provides key insights into the impacts of cross listing, drawing on their direct involvement and expert knowledge in financial operations, strategic decisions making and investment management, ensuring a comprehensive understanding of cross listing's effects on financial performance of the company.

### Data Collection Methods

In this study, both primary and secondary data were gathered and analyzed in order to obtain effective

statistical information and making useful decision. Questionnaire and interviews were used to collect primary data whereas, secondary data notably financial reports 2016-2021 obtained from current annual reports of case study companies.

### Data Analysis

and Service Solutions (SPSS) version 22.00. This software is helpful and suitable for this study, in descriptive statistics that give frequency, percentage in assessment of personal identification of the respondents and mean scores, standard deviation for variable under study. The interpretations of the meaning were as follows: 1-1.99 is weak, 2-2.99 is tending to be weak, and 3-3.99 is tending to be strong and 4-5 being strong. Moreover, on deviation (S.D), if  $SD < 0.5$  is homogeneity,  $SD = 0.5$  is moderate and then if  $SD > 0.5$  is heterogeneity. Furthermore, the financial statements of cross-listed companies were analyzed in terms of return on equity, market capitalization and share prices.

The study applied both qualitative and quantitative approaches for data analysis. Qualitative data was analyzed through content analysis and presented in form of explanatory notes while quantitative data was analyzed through descriptive statistics such as frequencies, percentages, means and standard deviations and presented in the form of tables.

### Data Analysis Model

The objective of formulating data analysis model is to be able to achieve study objective. The researcher used regression analysis to find out the relationship between independent and dependent variables. Regression analysis is a statistical model in this study that is used to establish the relationship between cross listing and financial performance. This model was selected because of its effectiveness in determining the effect of dependent variables over changes in independent variables.

Therefore, the model specified in this study is linked with research questions, objectives and hypotheses of the study to predict cross listing effect on financial performance of public companies cross listed on Rwanda Stock Exchange. Therefore, the measurements of the major variables under this research are stated below:

X= independent variable: Cross listing (CLT)

$X = f(x_1, x_2 \text{ and } x_3)$

$x_1 =$  Market share (MKS)

$x_2 =$  Company size (COS)

$x_3 =$  Age of the Firm (AFM)

Y= Dependent variable : Financial performance (FINP)

$Y = f(y_1, y_2, \text{ and } y_3)$

$y_1 =$  Return on equity (ROE)

$y_2$ = Share prices (SPC)

$y_3$ = Market capitalization (MKC)

Based on this, the following functional relationships have been developed in line with research objectives.

$ROE=f(MKS, COS, AFM) \dots (1.1)$  Function1

$SPC=f(MKS, COS, AFM) \dots (1.2)$  Function 2

$MKC=f(MKS, COS, AFM) \dots (1.3)$  Function3

Where 1.1,1.2 and 1.3 are the functional relationships of this study. The functions were used to test the effect of cross listing on financial performance.

$ROE=\beta_0+\beta_1MKS+\beta_2COS+\beta_3AFM+\mu$  model 1

$SPC=\beta_0+\beta_1MKS+\beta_2COS+\beta_3AFM+\mu$  model 2

$MKC = \beta_0+\beta_1MKS+\beta_2COS+\beta_3AFM+\mu$  model 3

Where,  $\beta_0$  is the intercept for each model (1-3)

$\beta_1-\beta_3$  are coefficients of explanatory variables, using primary data and  $\mu$ = error term.

Where:

Y = Financial performance (Dependent variable)

A = Constant term

$\beta$  = Beta coefficients

$\epsilon$  = Error term

$Y = \alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\epsilon$

The study investigated the effect of cross listing of public companies on financial performance (market share, company size and age of the firm) on financial performance in terms of return on equity, share prices and market capitalization. The model obtained reliable measures of each variable, entered predictor variable and outcome variable into the standard regression model.

## Results

**Table 1: Findings on Market Share**

Variables	N	Mean	Std. D	Interpretations
Using market share to set goals.	32	3.925	.336	Tend to be Strong/ Homogeneity
Keep monitoring market share movement in relation to the banking sector.	32	4.206	.308	Tend to be Strong/ Homogeneity
Monitoring market share to gain market compared to the competitors.	32	3.968	.437	Tend to be Strong/ Homogeneity
<b>Overall mean</b>	<b>32</b>	<b>4.003</b>		

Source (Field Survey May 2024)

Table 1 outlines three statements to assess perceptions of the respondents on market share. Respondents collectively agreed upon use of market share to set goals indicated by a mean of 3.925 that is relatively strong and homogeneous standard deviation of 0.336. From this perspective Katsikeas (2016) argues that firms need to use market share to set goals and monitor marketing performance, and it is also widely used in research examining marketing's performance impact.

The majority of the respondents agreed that cross-listed companies keep monitoring market share movement in relation to the banking sector indicated by strong mean of 4.206 and homogeneous standard deviation of 0.308. These findings are supported by Ratnatunga (2020) who claimed that a company has to keep monitoring market share movements so that may not lose

ground when compared to the competitors, due to the market as a whole growing faster than the firm. Respondents strongly agreed that cross-listed companies monitor market share to gain market compared to the competitors indicated by a strong mean of 3.968 and homogeneous standard deviation of 0.437. These findings are in line of Varadarajan (2020) who found market share to be an indicator of the success of a firm's efforts to compete in a product marketplace.

In general, the variable of market share has scored a strong overall mean of 4.003 and this implies that market share is an important indicator that a company uses to measure its success in the industry.

**Table 2: Market Share by Total Assets for Three companies for the Period 2016-2021**

Companies	2021	2020	2019	2018	2017	2016
Bank of Kigali (BK)	31.4%	30.7%	29.3%	28.4%	27.9%	26.8%
BPR Bank (Previously known as KCB)	9.0%	6.0%	6.0%	7.4%	6.1%	6.2%
Equity Bank Ltd (EQTY)	9.9%	8.7%	8.5%	10.1%	4.4%	4.3%

**Source:** (Compilation reports including personal calculations)

Table 2 shows market share by total assets for three case study companies during six years. Table 2 indicates a year-on-year growth of total assets for Bank of Kigali indicating that today this company accounts almost 30% of total assets in Rwanda's banking sector. Kenya Commercial bank experienced a slow growth during six years except 2018 and as of today the company shares approximately 9% of total assets in banking sector. In last six years, Equity Bank Ltd also did not grow impressively during six years except in 2010 and 2021 and the bank accounts nearly 10% of total assets compared to Rwanda's banking sector. Based on the market share findings presented there are several. The market share observations

provide valuable insights into the strategic dynamics and performance of the case study companies within Rwanda's banking sector. By contextualizing these findings within the discussion in the literature review, lessons can be drawn regarding the importance of market positioning, growth strategies, resilience and adaptability, market saturation and expansion challenges, and the influence of regulatory and economic factors on financial performance and competitiveness.

#### Findings on Firm Size

Table 3 show the perception of the respondents towards firm size of cross-listed companies in Rwanda.

**Table 3: Findings on Firm Size**

Variables	N	Mean	Std. D	Interpretations
Our company revenue is always increasing.	32	4.062	.715	Strong/ Heterogeneity
There is consecutive increase in our company's asset.	32	4.156	.627	Strong/ Heterogeneity
Our company's market value is improved compared to the industry.	32	3.812	.737	Tend to be Strong/ Heterogeneity
<b>Overall mean</b>	<b>32</b>	<b>4.010</b>		

**Source** (Field Survey May 2024)

Table 3 contains three statements to investigate respondents' views on firm size of cross-listed companies in Rwanda. Respondents strongly agreed however in disparity that their company's revenue is always increasing shown by a strong mean of 4.062 with a heterogeneous standard deviation of 0.615. According to Opeyemi (2019) firm size has always been an important factor in determining a firm's profitability.

Respondents also agreed in disparity a consecutive increase in company's asset indicated by a mean of 4.156 and homogeneous standard deviation of 0.627. These findings are also agreed by Shi (2014) that firm size should be measured by firm's total assets, Respondents strongly agreed that however in disparity that company's market value is improved compared to the industry indicated by a mean of 3.812 and heterogeneous standard deviation of 0.737. In general, the variable of firm size has scored a strong overall mean of 4.010; this implies that respondents agreed firm size of their companies in terms of revenue, company's asset and company's market value.

### Findings on Age of the Firm

Table 4 demonstrates findings on age of the firm of cross-listed companies in Rwanda.

**Table 4: Findings on Age of the Firm**

Variables	N	Mean	Std. D	Interpretations
Growing faster for young company than old one.	32	4.031	.594	Strong/ Heterogeneity
Old firm benefit from business experience than young one.	32	3.531	1.015	Tend to be Strong/ Heterogeneity
Old companies have a higher degree of growth persistence than younger firms.	32	2.750	1.135	Tend to be weak/ Heterogeneity
<b>Overall mean</b>	<b>32</b>	<b>3.437</b>		

Source (Field Survey May 2024)

Table 4 outlines three statements to assess perceptions of the respondents on age of the firm. Respondents agreed however in disparity that young companies grow faster than old one indicated by a strong mean of 4.031 and heterogeneous standard deviation of 0.594. This means that respondents shared different views. However, Haltiwanger *et al* (2013) agree that younger firms are growing faster than older firms. Respondents also agreed in disparity that the old firm benefits from business experience than young one shown by a mean of 3.531 and heterogeneous standard deviation of 1.015. This shows that respondents have different views about the statement. Coad (2014) also suggests that those older firms may benefit from their greater business experience.

On questions asked whether old company have a higher degree of growth persistence than younger firm was rated by a mean of 2.750 that is relatively weak and heterogeneous standard deviation of 1.135. This means that respondents disagreed with the statement. Coad (2014) states that old firms have a higher degree of growth persistence than younger firms. On the other hand, Özkan and Mehmet (2018) argue that until a certain age the younger firms earn a higher profit than older firms; however, after a firm reaches a certain age then older firms begin earning more profit. In general, the variable of age of the firm has scored a strong overall mean of 3.437 that is relatively strong; however, respondents have provided different views when comparing young firms and old ones.

### Findings on Financial Performance

This section analyzes financial performance of cross-listed companies in Rwanda. Variables assessed include return on equity (ROE), share prices and market capitalization.

#### Findings on Return on Equity (ROE)

Table 5 shows perceptions of the respondents towards return on equity (ROE) of cross-listed companies in Rwanda.

**Table 5: Findings on Return on Equity (ROE)**

Variables	N	Mean	Std. D	Interpretations
Increase of revenues because of stock market.	32	3.125	.751	Tend to be Strong/ Heterogeneity
Increase of total equity turnover (ROE) of cross-listed companies more than the one of listed companies.	32	2.781	1.150	Tend to be weak/ Heterogeneity
In my opinion the revenue of the cross-listed companies will keep increasing.	32	3.531	.915	Tend to be Strong/ Heterogeneity
<b>Overall mean</b>	<b>32</b>	<b>3.145</b>		

Source: (Field Survey may 2024)

From Table 5 there are three statements that assess perceptions of the respondents on return on equity (ROE). The increase of revenues because of stock market was rated by mean of 3.125 and heterogeneous standard deviation of 0.751. This means that respondents had different understanding on this statement. Respondents also had doubt if total equity turnover (ROE) of cross-listed companies increased more than the one of listed companies indicated by a mean of 2.781 that is relatively weak and heterogeneous standard deviation of 1.150.

Respondents agreed in diversity that revenue of the cross-listed companies will keep increasing rated by a mean of 3.531 that is relatively and heterogeneous standard deviation of. 915. This implies that respondents show different views on the statement. In general, variable of return on equity (ROE) has scored a strong overall mean of 3.145 that is relatively strong; however, respondents have provided different views about increase of equity (ROE) of cross-listed companies in Rwanda.

### Return on Equity (ROE) of Three Companies for the Period 2016-2021

Companies	2021	2020	2019	2018	2017	2016
Bank of Kigali (BK)	19.1%	16.0%	18.0%	17.2%	20.5%	20.0%
BPR Bank (Previously known as KCB)	8.64%	11.4%	23.6%	8.6%	10.6%	12%
Equity Bank Group Ltd (EQTY)	7.7%	14.0%	11.4%	8.01%	15.2%	9.94%

**Source:** (Compilation reports including personal calculations)

Table 6 demonstrates Return on Equity (ROE) of cases study companies for the last six years. In the first two years, Bank of Kigali had consecutive increase in ROE; however, between 2018 and 2020 it was dropped. In 2021 BK raised EOE by 19.01% that is better figure compared to the 14.4% for average banking sector in Rwanda. The figures of Kenya Commercial bank in Return on Equity (ROE) are inconstant in last six years. By 2021 it was dropped to 8.64% from 11.4% in 2020 which is a bad position compared to 14.0% of Return on the equity for the banking sector:

Equity Bank Ltd had an increase in ROE between 2016 and 2017, however in 2018 there was a higher reduction to 8.01% from 15.2%. Between 2019 and 2020 the bank improved its figures, still in 2021 Return on equity was dropped 7.7% that is bad compared to the average banking sector of 14.0%. These findings match what talked about in the literature about cross-listing and return on equity. They show how important it is for companies to keep doing well over time and compare themselves to others. When their return on equity drops a lot, they need to make changes to stay competitive. This helps us understand more about how cross-listing affects banks and why it's important for them to perform consistently and be able to adapt to changes.

### Findings on Share Prices

Table 7 provides perceptions of the respondents towards share prices of cross-listed companies in Rwanda.

**Table 7: Findings on Share Prices**

Variables	N	Mean	Std. D	Interpretations
Different people are buying shares from Cross-Listed. Companies in Rwanda.	32	3.375	1.184	Tend to be Strong/ Heterogeneity
Share prices will keep increasing due to meeting company's expectations.	32	3.718	.4568	Tend to be Strong/ Homogeneity
Share price is favorable for cross-listed companies.	32	3.812	.6927	Tend to be Strong/ Heterogeneity
<b>Overall mean</b>	<b>32</b>	<b>3.635</b>		

**Source** (Field Survey May 2024)

From 7 shows three statements that investigate perceptions of the respondents on share prices. Respondents shared different views and the statement saying that Different people are buying shares from cross-listed. Companies in Rwanda indicated by a mean of 3.375 and heterogeneous standard deviation of 1.184. This means

that some respondents agreed while others doubt if people are buying shares from Cross-Listed companies in Rwanda. Respondents agreed that share prices will keep increasing due to meeting company's expectations indicated by a mean of 3.718 that is relatively weak and homogeneous standard deviation of 0.4568. This shows that respondents were collectively sharing the same views about the statement.

Respondents agreed however in diversity that share price is favorable for cross-listed companies indicated by a mean of 3.812 and heterogeneous standard deviation of 0.6927. Implies that respondents show different views on the statement. In general, the variable of share price has scored a strong overall mean of 3.635 that is relatively strong; however, respondents have provided different views about buying shares of cross-listed companies.

**Table 8: Share Prices Three Companies for the Period 2016-2021 in Rwf**

Companies	2021	2020	2019	2018	2017	2016
Bank of Kigali (BK)	250	233	265	275	248	242
BPR Bank (Previously known as KCB)	355	347	371	362	353	351
Equity Bank Group Ltd (EQTY)	433	425	448	441	436	425

**Source:** (Compilation reports including personal calculations)

Table 8 demonstrates share prices of case study companies for the last six years. In the first three BK's share prices has consecutively increased while dropped in 2019. Kenya Commercial Bank and Equity bank furthermore had increase in share prices in a row for the first four years except in 2020. In general, comparing these three companies in share value, Equity Bank Group Ltd' share is the most valuable followed by the KCB and BK at last.

With discussions in the literature review, these findings call attention to the importance of consistency in performance, as evidenced by consecutive increases in share prices for Bank of Kigali, Kenya Commercial Bank, and Equity Bank Group Ltd over several years. The differences in share values among the companies highlight the significance of market positioning and brand strength. Fluctuations in share prices, such as the drop in BK's share price in 2019 and the decline for all three companies in 2020, emphasize the need for companies to adapt to changing market conditions. Ultimately, the share price data offers valuable lessons about the importance of investor confidence, market dynamics, and strategic adaptation, aligning with key themes discussed in the literature review on financial management and market strategies in the banking sector.

**Findings on Market Capitalization**

Table 9 provides perceptions of the respondents towards market capitalization of cross-listed companies in Rwanda.

**Table 9: Findings on Market Capitalization**

Variables	N	Mean	Std. D	Interpretations
Total assets of our company increased after its cross-listing.	32	2.687	1.229	Tend to be weak / Heterogeneity
Cross-listed companies have a larger market capitalization than listed companies.	32	3.125	1.184	Tend to be Strong/ Heterogeneity
Market capitalization of cross-listed companies will keep increasing.	32	3.637	.6090	Tend to be Strong/ Heterogeneity
<b>Overall mean</b>	<b>32</b>	<b>3.149</b>		

**Source:** (Field Survey May 2024)

Table 9 shows three statements that investigate perceptions of the respondents on market capitalization. Respondents had doubt if assets their companies increased after its cross-listing indicated by a mean of 2.687 and heterogeneous standard deviation of 1.229. Respondents also had doubt if cross-listed companies have a

larger market capitalization than listed companies indicated by a mean of 3.125 and heterogeneous standard deviation of 1.184.

Respondents agreed however in disparity that market capitalization of cross-listed companies will keep increasing indicated by a mean of 3.637 and heterogeneous standard deviation of 0.6090. This implies that respondents shared different views about the given statement. In general, the variable of market capitalization has scored an overall mean of 3.149 that is relatively strong; however, respondents showed different understanding concerning the increase of total assets of their companies due to cross-listing.

**Table 10: Market Capitalization of Three Companies for the Period 2016-2021 in Rwf Billion**

Companies	2021	2020	2019	2018	2017	2016
Bank of Kigali (BK)	285.3	259.3	220.8	194.7	122.7	108.4
BPR Bank (Previously known as KCB)	42.2	35.5	27.7	21.1	17.2	15.4
Equity Bank Group Ltd (EQTY)	65.1	52.8	41.7	32.4	26.9	22.2

**Source:** (Compilation reports including personal calculations)

Table 10 shows that all companies have successively improved in company' market value in last six years. These figures indicate Bank of Kigali as most valuable company compared Equity Bank Group Ltd and Kenya Commercial Bank. These findings support discussions in the literature regarding the importance of market valuation metrics as crucial indicators for assessing a company's financial health and competitiveness. Additionally, the comparison among cross-listed companies provides insights into competitive dynamics and strategic positioning strategies, aligning with discussions in the literature on the drivers and consequences of cross-listing decisions. Integrating these findings into the literature review enriches the discourse on evaluating cross-listing strategies, emphasizing the relevance of market-based measures and strategic considerations in the banking sector.

## Conclusion

This research investigated the effect of cross listing on financial performance of public companies listed on the Rwanda Stock Exchange. The study was guided by specific objectives and research questions.

In regard to the effect of cross listing of firm on Return on Equity of public companies in Rwanda, the study found that there some company like bank of Kigali that had a consistent increase during six years. However, Kenya Commercial Bank and Equity Bank Limited experienced inconsistency in Return on Equity in last six years where in 2021 both companies generated a lower Return on Equity below 14.0% of the average banking sector in Rwanda. Based on the research findings, the study concludes that there is a significant effect of cross listing on Return on Equity of public companies listed on Rwanda Stock Exchange.

Regarding to the effect of cross listing of firm on share prices of public companies in Rwanda, the study found that people foreign public companies do not trade well compared to local ones because people think that their shares are expensive, and their profitability is not guaranteed. However, based on statistical findings, the study concludes that there is a significant effect of cross listing on share prices of public companies listed on Rwanda Stock Exchange.

Finally, concerning the effect of cross listing of firm on market capitalization for public companies in Rwanda, the study found that their stock market in less active because of people want to keep their shares. However, study findings showed a significant change for the public companies or impact of being listed on Rwanda Stock exchange.

## Recommendation

The study looked cross listing and financial performance of public companies listed on the Rwanda Stock Exchange. In line with the research findings and conclusions drawn, the following recommendations are given.

### 1.1 To the Regulators of Public Listed Companies

1. To reform the rules and regulations and proper assessment to ensure the company wishes to be listed is financially sound
2. A regular close follows-up of the financial standing of listed companies to ensure that they provide an accurate picture of a business's financial health.
3. To provide financial information of the market as whole
4. To let the market controlled by supply and demand
5. Digitalized and automated system that make easy process between listed companies and regulatory bodies

## 1.2 To the Listed Companies

1. To always disclosure all the relevant financial information to the investors

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