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ROLE OF INFORMATION ASYMMETRY ON PERFORMANCE OF COMPANIES' LISTINGS AT RWANDA STOCK EXCHANGE.

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Abstract

The study assessed the role of information asymmetry and regulatory requirements on performance the Rwanda Stock Exchange (RSE) listed firms. It adopted a descriptive, quantitative research approach. The target population for the study was 100 respondents from different categories of the selected companies of capital market exchange in Kigali City. Probability sampling technique was used to collect data, done by means of a structured questionnaire and interview. The Statistical Product and Service Solutions (SPSS) program version 23.0 was used to analyze the results. The results showed that the socio-demographic were dominated by females; age ranged from 40-50 years old, the married people and the education level were Bachelor's degree studies. The findings revealed that 41% of respondents were strongly agreed with information availability being a factor of companies listing at RSE. Other characteristics of companies listing regarding information asymmetry at RSE agreed by respondents including the availability of communication platform (68%), Companies being informed (37%), Companies are being told about ASM (47%), the advantages of listing are being explained (53%), information is accessible through the public media (63%), and free information is available via the vending business (32 percent). The study found that adjusted R-square was 0.676, an indication that there was variation of 67.6% on the information asymmetry at 95% confidence interval and model was significant since the p-value was less than 0.05without the interaction term, $F_{(4, 99)}$ 22.055, $\rho<.0018$. The significance value was less than 0.05 an indication that the model was statistically significant. Therefore, RSE should motivate listed companies to use financial management information needs to be accompanied by strong commitment, sufficient manpower and financial resources, widespread internal support, and an agenda for effective investment

Key Words: *Role*, *information asymmetry*, p*erformance*, *Stock Exchange, listed companies*

1.0 Introduction:

Information asymmetry is a useful tool intended to help in the management as well as control of the corporate-financial operations. Information asymmetry, however, may cause under investment in firms. It also has an impact on the indirect determinants of firm investment, such as cash flows and external financing. Information asymmetry is one of the most important factors that affect the venturing into investing in listed firms (Roberts 2015).

Wang and Zhang (2018) provide a model of principal–agent relation and found that information asymmetry has a significant negative impact on firm investment. Han, Kim, Lee, and Lee (2014) proposed that the existence of information asymmetry has a significant negative effect on the stock returns of firms and that information asymmetry is associated with investors due to lack of timely and correct information. Baxamusa, Mohanty, and Rao (2015) addressed the effect of information asymmetry on firm investment and stated that equity is used to fund projects with higher information asymmetry, while debt is used to fund investment with lower information asymmetry.

Tsai (2008) documents that information asymmetry has significant impact on corporate investment decisions and increases the expected bankruptcy cost, cost of firm value, and information spread. Similarly, Wang *et al*., (2019) develop a theoretical model on information asymmetry and corporate governance and conclude that information asymmetry has a significant negative effect on firm investment. Information asymmetry affects the investment opportunities of firms because superior information is the key element of this effect on firm investment.

Potential investors are interested in determining the financial strength of a company as an element in assessing the company's value. In addition to the external analysts, managers within the corporation are also concerned with analyzing its financial performance. Internal analysts compare the actual performance of the company and its divisions and lines of business with plans, budgets, or objectives; they also compare the company's performance with that of current and potential competition (Scott, 2017).

The primary sources of information that analysts use to evaluate a company's performance are its financial statements. Performance assessment via financial statement analysis is based on past data and conditions from which it may be difficult to extrapolate future expectations. Any decision to be made as a result of such performance assessment can affect only the future as the past is gone, or sunk. While past performance is interesting, many managers and analysts are more interested in what will happen in the future. The past performance of a company, as shown in its financial statement. However, if the company fails to record sufficient profits or incur losses in the period, investors will avoid buying its shares, as well as, investors who have bought the shares before, would sell the shares fearing further losses. Investors often overlook companies with weak financial performance, thereby leading to a downward spiral in the stock price. Thus, investors perform fundamental analysis and consequently decide whether to invest in the company or not as current performance is indicative of the future (Lee & Zhao, 2014; Kengere, *et al*., 2020).

Several financial profitability measures have been adopted in financial statements analysis and long term planning (Ross,Westerfield, Jafee, & Jordan, 2008). Organizations are held accountable by measuring performance measurement; such become the consequences for performance, (Ross, *et al*, 2008). Managers need these to improve performance as well as value judgement from customers and citizens. In the current study several financial ratios have been adopted. Return on

Equity (ROA), a measure of profitability which divides the net income by the amount of its assets. The ROA measures how well a fund is doing. It indicates how well the fund's assets have been utilized to generate optimal returns. In their study Kosmidou, Pasiouras, & Tsaklanganos (2007) pointed out the ROA emergence as a key ratio for evaluation of profitability, thus becoming the most common measure of profitability in the literature.

A persistent debate continues over the methodology of measuring and comparing returns. As early as 1970, Friend, Blume, and Crockett warned about using a benchmark that effectively tricks the alpha calculation by over (under) weighting small-firm returns. More recently, Carlson (2017) further warned about drawing conclusions that were specific to the time period, type of fund, or choice of benchmark and stressed the importance of factors such as benchmark selection, survivability, portfolio composition, and non-CAPM return-generating factors when measuring fund performance.

1.1. Problem Statement

  Information asymmetry is met with a problem of alternative decision making especially knowing that resources are relatively scarce and limited, it is therefore pertinent that timely and cost-effective information be made available for proper and accurate decision making, maximization of profitability and optimal utilization of scarce resource (Alzoubi, 2012). According to RSE (2018), stock trade has assumed a significant role in the venture process in developed nations like the US, UK, Japan, thus numerous others contributing to their economic growth.

Contrarily, developing countries, including Rwanda, have an abundance of hand money (liquidity) available to them because of different reasons, for example, lack of statistical data about savings. One of the savings avenues available in the country is the stock exchange, which was founded in 2011 to inspire individuals to save and invest. The RSE's goal was set to increase individual investments by at least 20% per year (RSE, 2018).

Studies done on the role of information asymmetry on performance companies listed on the Stock Exchange includes: Chitekuteku, (2016) studied on an assessment of factors that determine the listing of small to medium enterprises on the Zimbabwean alternative security market and reported that information asymmetry, regulatory standards, corporate governance, and SME support platforms are all important factors in deciding whether or not a company can be included on the ASM. Ni and Khazanchi (2009) study on information technology investment decisions under asymmetric information found that information asymmetry adversely affects information technology investment and increases information cost. There is no study done on role of information asymmetry   on performance companies list on the Rwanda hence need to conduct study.

The null hypothesis H_{01} is that there is no significant relationship between information asymmetry and performance of companies' listings on RSE.

The alternative hypothesis H_{01A} is that there is a link between information asymmetry and performance of companies' listings on RSE.

2.0 Literature Review

2.1. Empirical Literature

Chitekuteku, (2016) studied on an assessment of factors that determine the listing of small to medium enterprises on the Zimbabwean alternative security market (ASM). The study a sampled 330 listing of small to medium enterprises, the analysis conducted in Zimbabwe assessed using

Stratified random sampling and factor classification was used to categorize the variables that determine whether or not SMEs are included on the ASM. Chitekuteku reveals that information asymmetry, regulatory standards, corporate governance, and SME support platforms are all important factors in deciding whether or not a company can be included on the ASM. The study recommended that SMEs to raise funds through the sale of equities and there is need for encouraging SMEs to register on the securities market.

Musonera and Safari (2014) studied Establishing a Stock Exchange in Emerging Economies: Challenges and Opportunities. The study found that the significance of the stock market as the global economy is dependent on stock exchanges to facilitate trade of business stocks by connecting those in need of capital with those who can supply it. The study concluded that stock market's function as a bond trading center is to raise funds from the investing public for long-term asset portfolio. The study recommends stock market should know their role in the development of an economy, and possible challenges they face.

Morck, Yeung, and Yu (2010) examined the information content of different stock markets. Their results showed that firm-specific return variation is high in countries with well-developed financial systems and low in emerging markets. In sum, their research results is a replica to: (a) examining the inter-relationship of investment and stock prices (i.e., how much firm investment is sensitive to stock prices) is inevitable and (b) the movements of the stock prices are an important determinant of investment expenditures of manufacturing firms. The study concluded that with well-developed financial markets, traders are more motivated to gather information about individual firms; as a result, prices reflect more firm-specific information. The study recommends that markets of developing countries should provide a setup that is conducive to information asymmetry and where complete information regarding firms is not conveyed to the investors, thereby ultimately creating serious problems such as adverse selection and low return on investment.

Tornell *et al.*, (2010) studied on currency mismatch, systemic risk and growth in emerging Europe and found that in developing countries, real sector firms may prefer to invest in more liquid reversible assets in the financial sectors that also offer comparable or higher rates of return on their investments rather than on irreversible fixed assets. However, despite such insights, there was no empirical study looking into this question of substitution between real and financial assets by real sector firms. The study concluded that currency mismatch across the entire economy, not just the financially privileged stock market listed firm. The study recommended that increasing rates of return on financial capital over and above those on fixed capital, increasing acquisition of short term financial assets by real sector firms and decreasing fixed investment rates.

Ni and Khazanchi (2009) study on Information technology investment decisions under asymmetric information: A modified rational expectation model found that information asymmetry adversely affects information technology investment and increases information cost. The study carried out on a simulation analysis to validate our theoretical model. The study recommends that IT manager with larger initial capital outlay who is particularly interested in acquiring information about their IT investments should reduce any asymmetry with competitors. The study recommends that IT investors be informed when information cost increases and in consequence the difference of investment level between the informed and uninformed investors is more pronounced.

Ascioglu, Hegde, and Mcdermott (2008) studied information asymmetry and investment–cash flow sensitivity. The study found that information asymmetry forces investments to decrease and

increases their sensitivity to internal funds. The study concluded that when information asymmetry exists in the market, the investment opportunities become highly sensitive and the volume of firm's investment decreases with a high ratio. The study recommended for robust to alternative measures of informed trading and liquidity.

Ryan *et al*., (2014) studied the effect on SME financing constraints by bank market power and found backing of the market power hypothesis, namely, that increased market power results in increased financing constraints for SMEs. The study used a large panel dataset of more than 118,000 SMEs across 20 European countries over the period 2005–2008. The study concluded that the capital of firm investment mainly comes from the credit market, but the credit market is imperfect and asymmetric information exists because of the lack of information on how to identify the confidence of borrowers and investment risks. Banks generally use different rates with borrowers, but higher rates force firms to give away some promising projects.

2.2. Theoretical framework

2.2.1 Signaling Theory

The signaling theory developed by Ross (1977) explained how a company should signal potential investors. This signal gives information about what has been done by management to realize the owner's wishes. Signaling theory assumes that it is necessary to signal investors to how they perceive the company's prospects (see Kengere, *et al*., 2020). The announcement of dividends is predicted to be a signal for investors in the investment decision-making process. Managers possess private information about the firm's attributes not known to the market. This information is valuable if the investments in place or opportunities to invest can have a positive effect on the firm's future cash flows. If the manager can give a convincing signal, the public will be impressed and information will be trusted such that this will be reflected the price of the stock. Therefore, it can be concluded because of asymmetric information, giving signals to investors or the public through management decisions becomes very important.

3.0 Method

The study adopted descriptive research design and targeted 100 staffs which consisted of twelve (12) from Capital Markets Authorities (CMA) staff, twelve (12) from Rwanda Stock Exchanges (RSE) staff, twenty-five (25) from Bralirwa (BRL) staff, twenty-five (25) from Bank of Kigali (BOK) staff, fifteen (15) from Equity (EQTY) staff, and eleven (11) from Crystal Telecom Rwanda (CTL) staff The researcher also used the CMA staff, and secondary data sources. All 100 staff were selected because it was small and according Kothari (2004) if population is small census appropriate

In order to test reliability of instruments questionnaires and interview were piloted where test-retest was used. Questionnaires were prepared and distributed to the participants, and then the same instruments were given to the same people again after a while. The first administration's responses were compared to the second administration's response. A correlation and regression test was used to determine the critical relationship between information symmetry on performance companies that list on the Rwanda Stock Exchange and ρ-value less than 0.05 were considered during the research. is because the researcher quantitatively determined the relationship between variables and linear regression analysis is seen as the most appropriate for application in the study. Tables and short observations were used to introduce the results for analysis.

$$y = \beta 0 + \beta_1 X_1 + \varepsilon :$$ ……………………………………………. (Equation 1)

where Y = Dependent variables performance the Rwanda Stock Exchange listed companies, B= Constant, ε = Error term, X_1= information asymmetry and β_1, = Regression coefficients.

Results:

This socio-demographic trait revealed the frequency of socio-demographic characteristics, included sex, age, marital status, and educational attainment.

Table 1: Socio-demographic characteristics of Respondents

Variables	Frequency	Percentage
Sex		
Male	42	42.0
Female	58	58.0
Age		
Under 25 years	20	20.0
[26-35] years	49	49.0
[36-45] years	25	25.0
Over 46 years	6	6.0
Marital status		
Single	51	51.0
Married	43	43.0
Widow/er	6	6.0
Education level		
Secondary	20	20.0
Graduates	51	51.0
Master	22	22.0
PhD	7	7.0

Source: Primary data (2021)

Table 1 above indicates that most participants were females (58%) of respondents and males were (42%) of respondents. The age group was dominated by an active group of 26-35 years old (49%) of respondents, under 25 years were 20% of respondents, the age range between 36 to 45 years old wherever 25% of participants and over 46 years old were 6% of respondents. Marital status characterized by single (51.0%) of respondents, married (43.0%) of respondents' widow/er (6.0%)

of respondents. The education level analysis showed that 51.0% were graduates, 20.0% respondents studied secondary level, and 7.0% had PhD studies.

4.2 Presentation of findings

The results of findings were presented in the form of a table and brief narrative to interpret the different findings. Conclusions were given according to the research objectives in the following sections.

The factors of companies listing described in this part including information asymmetry,

Table 2: Presentation of information asymmetry

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Information availability	41(41.0)	36(36.0)		20(20.0)	3(3.0)
Availability of communication platform	4(4.0)	68(68.0)	15(15.0)	9(9.0)	4(4.0)
Companies being informed	31(31.0)	37(37.0)	7(7.0)	19(19.0)	6(6.0)
Companies being learned about RSE	13(13.0)	47(47.0)	4(4.0)	24(24.0)	12(12.0)
Benefits to be listed are being clarified	8(8.0)	53(53.0)		36(36.0)	3(3.0)
Availability of information to the Public	4(4.0)	63(63.0)	6(6.0)	24(24.0)	3(3.0)
Via a vending firm, free information is available	30(30.0)	32(32.0)	4(4.0)	9(9.0)	25(25.0)

Source: Primary data (2021)

Table 2 above indicates that 41% of respondents were strongly agreed that information availability is a factor of companies listing at RSE. Other characteristics of companies listing regarding information asymmetry at RSE agreed by respondents including the availability of communication platform (68%), Companies being informed (37%), Companies are being told about ASM (47%), the advantages of listing are being explained (53%), information is accessible through the public media (63%), and free information is available via the vending business (32 percent).

4.3 Inferential Statistics

4.3.2 Regression Analysis

This study assesses the evaluate the role of information asymmetry, on performance of companies that list on the Rwanda Stock Exchange. In a more summarized way, Table 3 reports OLS results for study Equation 1 as follows:

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.694a	0.682	0.676	0.027	0.482	22.055	4	95	0.000

Source: Primary data (2021)

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table, the value of adjusted R squared was 0.676, an indication that there was variation of 67.6% on the information asymmetry at 95% confidence interval. This shows that 67.6% changes in performance companies that list on the Rwanda Stock Exchange could be accounted for information asymmetry, R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.694

Anova of regression analysis

Table 4: ANOVA of regression analysis

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.077	4	4.019	22.055	.0018b
	Residual	17.313	95	.182		
	Total	33.390	99			

Dependent Variable: performance of companies listed Rwanda Stock Exchange

predictors: (constant), information asymmetry

Source: Primary data (2021)

From the ANOVA statistics in Table 4, the processed data, which is the population parameters, had a significance level of 0.018 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (ρ-value) is less than 5%. The model between information asymmetry, and performance companies that list on the Rwanda Stock Exchange. Shows that model was significant since the ρ-value was less than 0.05without the interaction term, $F_{(4, 99)}$ 22.055, $\rho<.0018$. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 5: Regression Coefficients of the variables

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.035	.291		3.553	.001
	Information asymmetry	.286	.061	.444	4.656	.000

a.   Dependent variable: performance of companies listed in Rwanda Stock Exchange

Source: Primary data (2021)

$y = \beta 0 + \beta_1 X_1 + \varepsilon$ becomes performance the Rwanda Stock Exchange listed companies =1.035+0.286X information asymmetry

From the above regression equation, it was revealed that information asymmetry is holding to a constant zero, performance the Rwanda Stock Exchange listed companies would stand at 1.035, unit increase in information asymmetry would lead to increase in performance the Rwanda Stock Exchange listed companies by a factor of 0.286

4.3.2 Hypothesis Testing

The null hypothesis was to test H_{01} that there is no significant relationship between information asymmetry and performance of companies' listings on Rwanda Stock Exchange. Table 5 result shows that information asymmetry had ρ =0.000≤ 0.05 hence we fail to reject null hypothesis and conclude that findings reveal that there is a significant association between information asymmetry and performance of companies' listings on Rwanda Stock Exchange.

Conclusion/Discussion:

Information asymmetry has an impact on the indirect determinants of firm investment, such as cash flows and external financing. It is one of the most important factors that affect the investment in listed firms. It has significant impact on corporate investment decisions and increases the expected bankruptcy cost, cost of firm value, and information spread. Regarding the factors of companies listing described in this study of information   asymmetry, the findings include, information availability (41%), availability of communication platform (68%), Companies being informed (37%), Companies are being told about investment (47%), the advantages of listing are being explained (53%), information is accessible through the public media (63%), and free information is available via the vending business (32%). Companies do well in information-rich settings, according to Okello-Obura and Matovu (2011). Corps (2005) backed up this argument that providing enough information increases competitiveness and promotes market access. This suggests that the availability of information is crucial in persuading businesses to list on the RSE as per Mwarari and Ngugi (2013). According to a survey conducted in Kenya to see how

information   asymmetry affects the listing of firms on the Nairobi Stock Exchange, seventy percent (70%) of respondents believed that knowledge access is essential to the listing process. This illustrates the importance of knowledge usability in the listing of companies on the Rwanda Stock Exchange according to Mwangi (2013), are critical to the effectiveness of an ASM. Nomads make sure SMEs follow ASM requirements and have the requisite track records in line with a report undertaken in Uganda to assess the most difficult part of doing business. Yet, according to the Global Competitiveness Report (2009), access to finance was ranked first by 22.9 percent of respondents, the main problems faced by SMEs being poor infrastructure (11.4%) and high tax rates (9.9%), and there is a need to put support platforms in place to address the problems. According to Mwarari and Ngugi (2013), it is necessary to develop venture capital and private equity companies to lend to SMEs with the aim of selling them in an initial public offering (IPO) or personal replacement until they reach maturity. Accordingly, SMEs help platforms play an important role in determining whether or not to list SMEs/companies list on the RSE.

The study supports a statistically important and robust positive relationship between liquidity and business listings at the Rwanda Stock Exchange in Kigali. This is comparable to previous research on factors affecting company listing, in which four factors were derived using the percentage of variance technique, accounting for around 68 percent of the variance, which is appropriate since the minimum standard can account for at least 60% of the variation (Ngah & Ibrahim, 2010).

Recommendation

RSE should motivate the companies to be listed, publish and make clear the factors associated with the liquidity that should encourage them to be quoted, including information asymmetry and relaxing regulatory guidelines. The government should mobilize and provide the facilities to the companies for being listed.

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