



IMPACT OF LISTING ON PERFORMANCE OF FIRMS LISTED AT DAR ES SALAAM STOCK EXCHANGE, TANZANIA

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ABSTRACT

Purpose: This study is based on empirical information to understand the importance of firms listing in the stock market. It analysed the impact on performance for the listed firms at Dar es Salaam Stock Exchange.

Methodology: The mixed methods approach with an explanatory sequential design and a sample size of 19 listed firms, the data between 1998 and 2019 were used. Matched pairs approach, random effect model and thematic analysis were used to analyse quantitative and qualitative data respectively.

Findings: The study found the firm performance has trajectory increased after listing as noted for both mean and median were change in Return on Equity being 13.09% and 13.37% respectively. The baseline model and robustness check done sector-wise revealed that listing had a statistically positive impact on firm performance.

Research Implications: The study focused on the impact on performance for the listed firms at Dar es Salaam Stock Exchange. It proved that listed firms' performance improved compared to before listing.

Practical Implication: The study informed firms to go public since it will help them to shift the risk to other shareholders and acquire capital to finance their subsequent growth.

Social Implication: The Policymakers are informed to continue investing more resources in the Dar es Salaam Stock Exchange as they impact positively on firm performance.

Originality: The study provided evidence that listed firms have improved performance. This study is quite different from previous scholars' debate and Agency theory arguments highlighted poor performance once the firm list at the stock market.

Keywords: *Firm performance. listed firms. market. stock exchange. Tanzania*

INTRODUCTION

Background Information

The constant search for expansion, growth and increase in the value of shareholders has been an ultimate goal of different firms in different economies. In most cases, this has been achieved by listing through Initial Public Offering (IPO). IPO entails selling of firm's shares for the first time to the general public (Ramlan & Nodin, 2018; Ernest & Young, 2018) after having fulfilled security laws, guidelines and regulations (Larrain, Phillips, Sertsios & Urzúa 2021). The listing provides firms with access to new capital from shareholders and helps them in lowering the cost of operation and investment resulting in increased firm performance (Ghonyan, 2017; KPMG 2015). According to

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Kinyua, Nyanumba, Gathaiya & Kithitu (2013) and Norman (2011), listing switches a spotlight on firms and brings indirect benefits such as attracting a different level of management, increasing their operations, and enhancing their recognition both locally and globally. Numerous studies have been conducted on reasons behind the listing of firms in different countries (Van & Tan 2018; Wies & Moorman 2015; KPMG 2015; Simiyu, Thadeus, Ferdinand & Simiyu 2016; Hung, Thien & Liem 2017) and results suggest that firms' decisions to go public vary globally, and there are no universal patterns behind them.

Despite the existence of different studies from both developed and developing economies on the benefits and reasons of listing, there has been a contradiction on its impact on firm performance. For instance, a study by Nawaz & Haniffa (2017) from the UK revealed that firm performance declined gradually in the first year after listing. Similarly, Intrisano, Micheli & Calce (2020) who presented the European experience exhibited that the performance measure of firms declined immediately after listing. Moreover, Park, Song and Niu (2018) studied the same phenomena in Canada by using US banks and obtained the same impact. Similar to these findings are those of other scholars (Izfs & Supriatna, 2019; Ferreira, 2017; Mungure, 2017) from the UK, Indonesia and Kenya respectively who also reported the same pattern of findings. In general, the decline in firm performance after listing was attributed to a lack of proper management practices and principal agency problems.

On the other hand, other scholars have taken a different direction on the impact of listing on firm performance. For instance, a study by Shukla & Shaw (2018) in India revealed that firm performance improves after listing. Similarly, another study conducted in Kenya by Kinyua *et al.* (2013) showed that firm performance increased after listing. Cementing on these findings when analysing the impact of listing on firm performance in Vietnam, Le, Duong & Nguyen (2020) found that listing was positively associated with increased bank performance. Similar to these findings, Larrain *et al.* (2021) reported that, in the context, listing influences increased firm performance when the agency cost problem is properly contained. In this similar phenomenon other scholars (Mindosa & Pasaribu, 2020; Simiyu *et al.*, 2016) who focused on Indonesian and Kenyan contexts, also reported that there was an increase in firm performance after listing. The existing contradiction is attributed to differences in the stock market contexts, the sample size, and the techniques of data analysis employed.

Listing in the Dar es Salaam stock exchange

In Tanzania, the Dar es Salaam Stock Exchange is the market where stocks and securities are traded. The market is segmented into two segments, which are the Main Investment Market (MIM) and the Enterprise Growth Market (EGM). Each of the segments has its specific listing criteria that are related to tracking record, profitability, capital, incorporation status, tangible assets, among others (DSE, 2016). While the MIM has stringent requirements, the EGM has the least requirement criteria. For instance, in the MIM, listing requirements requires a firm to have published its financial accounts for at least three preceding years (prospectus) and with at least 1 billion Tshs of the issued

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capital. In contrast to this, the EGM requires no preceding financial accounts, but only details showing the plausibility of the firm, and with a total capital of only 200 million Tshs. By July 2021, the two segments had a total of 22 listed firms, with MIM having sixteen firms and the EGM having six listed firms, a remarkable increase from 2 firms in 1998 (DSE, 2016; CMSA, 2019). The data indicate that the Tanzanian Stock Exchange is in the infancy stage and still growing.

Concerning the impact of listing on firm performance, the Tanzanian experience shows that, despite an increase in the number of firms listing in the recent past, there is paucity in studies regarding the impact of listing on firm performance. Studies by different scholars, for instance, Bwana & Ally (2019), focused on the efficiency of listed manufacturing firms in DSE. Furthermore, Nyabakora, Mng'ang'a, & Chibona (2020) focused on the effect of financing decisions on firm performance and Assenga (2021) concentrated on foreign directors and firm performance with evidence from Tanzania listed companies. Considering the above-mentioned studies, it has been established that while these studies focused on the efficiency of listed manufacturing firms, foreign directors and financing decisions, none of them concentrated on the impact of listing on firm performance. Similarly, the global context also indicates that there are mixed conclusions about the impact of listing on firm performance. While other scholars did not establish any impact (Izfs & Supriatna, 2019; Intrisano, 2020), others associate listing with increased firm performance (Larrain *et al.* 2021; Mindosa & Pasaribu 2020). Such dearth in literature in the Tanzanian context and globally on firm performance calls for a further study. Therefore, the study on which this paper is based sought to fill in this knowledge gap by analysing the impact of listing on firm performance and testing the null hypothesis to confirm the existing impact on firm performance. The tested null hypothesis is presented below.

H₀: Listing has no impact on the performance of firms listed at DSE.

THEORIES UNDERPINNING OF THE STUDY

This paper was guided by the Agency Cost Theory proposed by Jensen & Meckling (1976). The theory assumes that as a result of shareholders detaching themselves from routine managerial functions, they hand over these tasks to agents (managers) who are considered technocrats to run the firm profitably for the interests of shareholders (principals). However, due to contradicting interests between managers and shareholders, there arises the Agency Cost problem which may affect firm performance negatively. The theory has been used in different studies to measure the effect of Agency Cost on firm performance after IPO. For instance, Dong, Firth, Hou & Yang (2016) and Huang & Song (2005) reported that listing does not contribute anything to firm performance as a result of the Agency Cost problem. Similarly, Alanazi & Liu (2013) revealed that the performance of the listed firms in the Gulf Cooperation Council (GCC) declined due to the increase of retention by original owners caused by agency costs. However, in situations when the principal hands over the firm's managerial functions to the agent, and the firm has adequate capital acquired from the public and the agent sticks to shareholders' interests, it is evident that the agent will make better use of the secured capital to invest in profitable projects which will help to improve the performance of the firm (Khushi, Ul din & Sulaiman 2020; Jensen, 1986).

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The theory is relevant to this study as it brings to light what brings about positive and negative performance results after listing. It explains that while listing brings in new capital to the firm from the public, if not well invested, or if agents divert from the interests of the shareholders, it is likely for the firm to register no financial improvement after listing. The theory was used to discuss both descriptive and inferential results obtained in the study.

METHODOLOGY

The study used the mixed methods approach with an explanatory sequential design (Creswell & Plano Clark, 2018). Due to its ability to give valid and reliable results as suggested by Bentahar & Cameron (2015), the researcher decided to use the mixed methods approach. That research design was employed in the study because it allows collecting both quantitative and qualitative data sequentially. The researcher collected and analysed quantitative data in the first phase which was followed by qualitative data collection and analysis in the second phase. For validation purposes, qualitative data were related to quantitative outcomes collected in the first phase of data collection as suggested by different scholars (Creswell, 2013; Creswell & Plano Clark, 2011).

Population

In the quantitative part, the researcher collected secondary panel data on the dependent (Return on Equity [ROE]), independent variable (listing) and control variables (firm size, firm age, leverage, and geographical diversification) from firms' prospectus (containing three years data before listing) obtained from Capital Market and Security Authority (CMSA) and audited annual reports (containing three years data after listing) treasured at Dar es Salaam Stock Exchange (DSE). Panel data for all 19 firms were collected. Data ranged from 1995 to 2019. The data included both data before listing and after listing. It should be understood that there was a great range in years since firms listed with DSE in different years. The researcher decided to use panel data to control unobserved variables that might affect firm performance as supported by different scholars (Le *et al.*, 2020; Van Tan & Trinh, 2019; Alanazi & Liu, 2013; Torres-Reyna, 2007).

Concerning qualitative data, a semi-structured interview method was employed for data collection. This is because of its flexibility and compatibility with other methods of data analysis. While conducting such interviews with the intended interviewees, the researcher provided them with ample opportunities of expressing their views in line with the intended interview questions (Bryman, 2016).

Sampling technique and Sample Size

The study employed a criterion sampling technique to obtain firms to participate in the study. The study focused on local listed and trading firms and those that had been listed by 2016 as the year was used as a cut-off point for listing. This is because the study reviewed 3 years before and 3 years after listing. Therefore, firms that listed with DSE after 2016 missed this criterion and were dropped from the study since they had no audited annual reports for 3 years after listing. Based on the required criterion, the study used 19 out of 21 firms that listed from 1998 to 2019.

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About interviews, a total of 7 interviewees were selected purposively. These included three senior officers from CMSA, DSE, Brokers and four firm representatives were selected depending on their years of participation on DSE. Skills, knowledge and experience on capital market issues prompted the researcher to select the above-mentioned interviewees. During interview preparations and sessions, ethical issues and procedures were given a greater priority in the sense that confidentiality, privacy, and respondents' dignity were safeguarded (Bryman, 2016). Research questions reflected the nature of the interview guide that was used in the study.

2.3 Data Analysis Techniques

In the course of data analysis, various techniques were used, including descriptive (matched pairs approach), trend, and regression analyses. The descriptive analysis with matched pairs approach was used to analyse performance measures of the firms before and after listing. The matched pairs approach was adopted in this study since several previous related studies (Chalarat 2018; Alanazi & Liu 2013; Alanazi *et al.* 2011) used the same similar approach for analysis. In this approach, the same firm before the listing is used as a control for itself after listing. The approach compares firm performance changes in two periods, before listing and after listing, to give results about variations in firm performance. The study compared firm performance three years before and three years after listing. Years before listing are denoted by a negative sign (-) while years after listing are denoted by a positive (+). Therefore, -1, -2, and -3 indicate years before listing whereas +1, +2, and +3, indicate years after listing. For analysis, the year of listing (year 0) is dropped to control the spillover effect (effects of data before and after listing). This time frame was considered sufficient to capture the trend in firm performance in this study based on CMSA listing requirements as provided in the DSE handbook (DSE, 2016). The use of 3 years before and 3 years after listing has been used by Kuria (2014); Alanazi *et al.* (2011). Moreover, the regression analysis was run to analyse the impact of listing on firm performance as used by previous scholars (Le *et al.*, 2020; Alanazi & Liu, 2013).

To supplement and validate quantitative outcomes, qualitative findings were collected, processed and analysed to provide sensible and meaningful results. Thematic analysis was used in this study. It involves identifying, analysing and providing a detailed account of the identified themes (Braun & Clarke, 2006). In this study, the themes that were obtained from qualitative data were used to complement quantitative outcomes.

2.4 Measurement of variables

Several financial measures have been advanced by some scholars in measuring firm performance. These measures are used differently based on the needs and reasons of the study. Based on this fact, there is consensus in empirical literature about Return on Sales (ROS), Return on Equity (ROE) and Return on Asset (ROA) as measures of firm performance (Van Tan 2019; Pastusiak *et al.* 2016; Mayur & Mittal 2014; Alanazi *et al.* 2011). However, for this study, ROE was used as a dependent variable and a measure of firm performance because it focuses on the interests of benefitting shareholders, thus making it a true bottom-line measure of firm performance (Intrigano *et al.* 2020; Ross,



Westerfield & Jordan, 1998). The formula for measuring ROE is presented in equation (i)

$$ROE = \frac{\text{Profit before tax}}{\text{Total Equity}} \dots\dots\dots (i)$$

On the other side, the listing was used as an independent variable and was measured as a dummy variable with 1 if the firm was listed and 0 if otherwise, and the expected result was positive. This study also used the following control variables: Firm size (FS), measured as the natural logarithm of total assets with the expected sign being positive/negative; Firm age (FA), measured as the number of years the business had operated before listing, with the expected sign being positive or negative; leverage (LV), measured as total debt/ total equity, with the expected sign being positive/negative; and geographical diversification (GDIVER), with the expected sign being positive. Control variables were used in this study to increase predictability and reduce biases of the model as supported by earlier studies of Ferreira (2017) and Shukla & Shaw (2018).

2.5 Model Specification for analysing the Impact of Listing on Firm Performance

The impact of listing on firm performance was measured based on the econometric model below:

$$ROE_{it} = \beta_0 + \beta_1 LISTING_{it} + \beta_2 FS_{it} + \beta_3 FA_{it} + \beta_4 LV_{it} + \beta_5 GDIVER_{it} + FD_i + TD_t + \varepsilon_{it} \dots\dots\dots (ii)$$

Where: *ROE* is the dependent variable being a proxy for firm performance; β_0 is a constant; β_1 to β_5 are coefficients to be estimated; LISTING is the main explanatory variable, measured as a dummy, with 1 if a firm is a listed and 0 if otherwise; and FS, FA, LV and GDIVER are vectors of control variables in the model that could affect performance as controls as used by Jiang, Yao, & Feng (2013) and Luu, Vu, Nguyen, & Le (2019). The control variables were firm size (FS), measured as the natural logarithm of total assets with expected sign positive/negative; firm age (FA), measured as the number of years the business had operated before listing with expected sign positive or negative; leverage (LV) measured as total debt/ total equity with expected sign positive/negative; and geographical diversification (GDIVER) as a dummy with 1 for some diversification and 0 for none with expected sign positive. Firm dummy (FD_i) captured time invariant firm’s specific effect while time dummy (TD_t) captured time variant-specific effect and ε was the error term, while *i* and *t* were firm and time units respectively. For robustness check, we segmented listed firms sector-wise from which two estimations for each sector were run. The estimations for each sector were named 1 and 2. The aim was to check if the results obtained in the baseline model were robust and consistent.

2.6 Diagnostic Tests

To conduct a regression analysis, one needs to abide by its important assumptions such as normality, Multicollinearity, heteroskedasticity and autocorrelation. In this study, these assumptions were tested to check whether data satisfied the regression assumptions as recommended by Kennedy (2008). According to Pallant (2010), when regression analysis is used, the important assumptions must be met for the research findings to be accurate and generalized.



2.6.1 Normality

Normality is one of the assumptions of the classical linear regression model (Gujarati, 2004). Based on the skewness concept, normally distributed data must have 0 skewness with the accepted range of -1.0 and +1.0 (Fuad *et al*, 2015). The results in Table 1 indicate that skewness of ROE was below negative one (-1) with the value of -0.2388873. Therefore, the classical linear assumption of normality, measured on skewness value range for ROE and other important variables, were within the accepted range and favour for normality.

2.6.2 Multicollinearity Test

A correlation matrix was used to test for the assumption of Multicollinearity in this study. The assumption of Multicollinearity is met when correlation coefficients are in the range of $\leq +0.9$ or ≥ -0.9 between variables (Field, 2013). When two variables are highly correlated, they violate Multicollinearity assumptions; hence one variable has to be dropped because both of them measure the same effect. Table 1 summarizes the correlation matrix of the independent variables that were used.

Table 1: Correlation matrix of the independent variables

Variables	ROE	Listed	Leverage	Geographical diversification	Firm size	Firm age	Skewness	Kurtosis
ROE	1						-0.2388873	2.105505
Listed	0.2867	1					-0.0350931	1.001232
Leverage	-0.3278	-0.6634	1				0.0200713	2.102779
Geographical diversification	0.1142	-0.0173	-0.0341	1			0.1054093	1.011111
Firm size	0.1833	0.0256	0.0934	-0.1492	1		-0.0234298	2.681848
Firm age	0.3203	0.1286	-0.2798	0.0829	0.0502	1	0.1295103	2.394212

From Table 1, all the variables were retained for further analysis since there was no problem of Multicollinearity among them, and the correlation coefficients were between $\leq +0.9$ or ≥ -0.9 . Also, Multicollinearity was tested using Variance Inflation Factor (VIF), where VIF results were less than 10; hence, there was no problem of Multicollinearity as presented in Table 2. These results are supported by Gujarati (2004) who argues that, where the Multicollinearity problem exists, the value of VIF should be greater than 10.

Table 2: Variance Inflation Factor (VIF)

Variables	Leverage	Listed	Firm size	Firm age	Geographical diversification
VIF	2.16	1.94	1.29	1.17	1.16
1/VIF	0.463519	0.51649	0.776164	0.858102	0.865129

Also, the study tested for heteroskedasticity assumption to check the presence of constant variance within residuals. Breusch-Pagan / Cook-Weisberg was used to test the validity of this assumption. According to Biorn (2017), the assumption of heteroskedasticity is met when the **p**-value is greater than 0.05. The study results showed a **p**-value of $\chi^2 = 6.97$ and a $\text{Prob} > \chi^2 = 0.085$ which was greater than the significant level (0.05) for ROE. Hence, the study failed to reject the null hypotheses and concluded that there was



no heteroskedasticity problem in ROE. Furthermore, the researcher tested the variables for autocorrelation. The assumption of autocorrelation is met when values of the same variables have no similarities among them over consecutive periods (Pallant, 2010). This means that past values cannot be used to predict future values. The Wooldridge (2002) test was used to check the validity of this assumption. The assumption is met when the p-value is greater than 0.05. In this study, the p-value of $F = 0.624$ and $\text{Prob} > F = 0.4398$, which were greater values than the significant level of 0.05 for ROE. Hence, the study failed to reject the null hypotheses. Therefore, there was no first order autocorrelation problem in ROE.

2.6.3 Hausman test

The Hausman Specification Test was used for data analysis in this study to decide whether to use the Random Effect (RE) or Fixed Effect (FE) model. RE model assumes the mean scores of the group are random from the population while the FE model assumes that the mean scores of the group are fixed. Hausman Specification results indicated that the $\text{Prob} > \chi^2$ was 0.7072, greater than 5% of the stated alpha level; hence accepting the null hypothesis (H_0): difference in coefficients is not systematic. This means that errors associated with each firm are unique, unsystematic, and random, showing no correlation with firm performance. Hence a random effect model was appropriate for this study as a baseline model.

3.0 FINDINGS AND DISCUSSION

3.1 Descriptive Statistics on the Performance of Listed Firms at DSE before and after Listing

Using descriptive statistics, the performance of listed firms before and after the listing was determined with the matched pairs approach. The method was used because it easily depicts and compares the performance trend of the same firms before and after listing. The method was used by earlier scholars (Shukla & Shaw, 2018; Alanazi & Liu, 2013; Alanazi *et al.*, 2011) in measuring firm performance trends. The Matched Pairs' approach with ROE being employed to analyse the impact of the performance of listed firms was used. Moreover, mean and median were used to determine firm performance before and after listing as presented in Table 3. According to the data set, it is evident that there were no outliers in the dataset hence supporting the use of mean as a measure of firm performance. Median was also used based on its ability to measure the relationship between variables. This is supported by Shukla & Shaw (2018) who suggest that using median may be a better choice since performance could be skewed. In this regard, the study employed both mean and median to measure the trend of performance since data values had no significant outliers as reported by Shukla & Shaw (2018) and Alanazi & Liu (2013).



Table 3: Comparison of ROE between two periods (before and after listing)

Variable	Years	-3	-2	-1	+1	+2	+3
Return on Equity	Mean	24.46526	23.18684	21.52263	33.51763	36.29053	38.65737
	Median	27.40000	26.19000	24.90000	37.11000	39.56000	42.66000

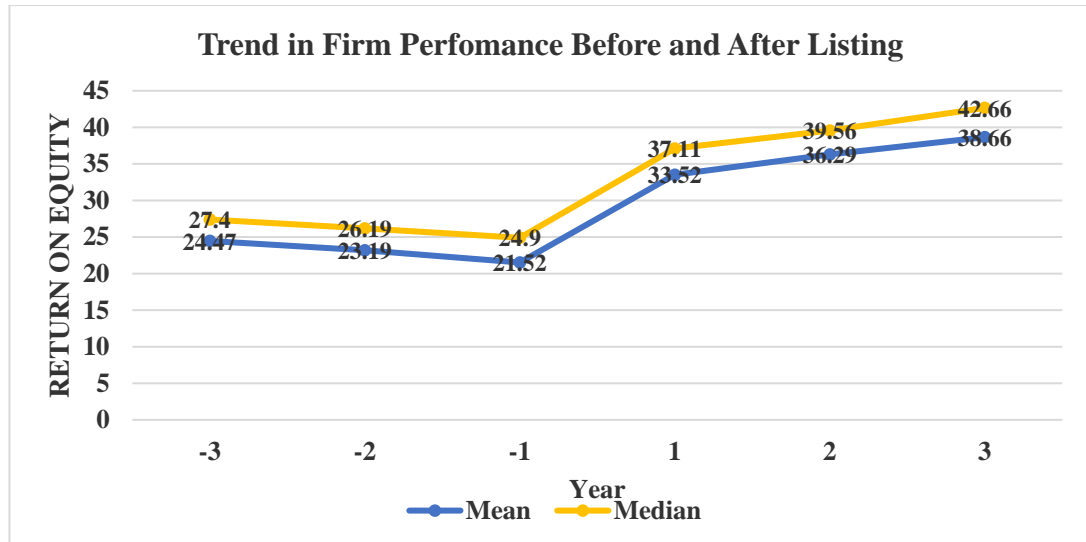


Figure 1: Graphical representation of the trend in ROE before and after listing

The trend in firm performance before and after the listing is presented in Figure 1. It indicates that mean ROE decreased from year -2 until year -1, which then followed an upward trajectory from year 1 to 3 after listing. The mean observed in Figure 1 implies that there was an increase in the firm performance right from year 1 to year 3 after listing. These findings contradict findings by Alanazi *et al.* (2011) who reported that the mean of ROE decreased immediately after listing. Apart from the mean, the study considered the value of the median obtained in the findings. Figure 1 indicates further that there was a decreasing trajectory in the median of ROE from year -3 to year -1 before listing, being followed by a steep upward trajectory throughout year 1 to 3 after GP. The findings further indicate that the trend of firm performance (ROE) was similar when both mean and median were used for estimation. These findings are contrary to findings by Park, Song & Niu (2018) and Lo, Wu, & Kweh (2017) but are in line with findings by Le *et al.* (2020) and Nawaz & Haniffa (2017). These differences could be attributed to the handling of the agency cost problem, methodological differences, contextual differences and sample size.

Table 4: Mean and Median change on ROE before and after Listing

Variable	Mean before	Mean After	Mean change	Median before	Median after	Median change
Return on Equity	23.05824	36.15518	13.09694	26.19000	39.56000	13.37000

Table 4 presents the mean and median changes in ROE before and after listing. In the table, it is depicted that the mean value of ROE increased by 13.09% immediately after listing from 23.06% to 36.16% before and after listing respectively. Concerning the



median value of ROE, it is reported that there was an increase from 26.19% to 39.56% before and after listing respectively thus depicting a difference of 13.37%. These results contradict earlier results found by other scholars (Park *et al.*, 2018; Lo *et al.*, 2017; Alanazi *et al.*, 2011) who reported a decline in mean and median immediately after listing.

To validate findings obtained in the quantitative part of the study, the researcher collected qualitative findings from senior officers who were key informants who, in support of the above findings, confirmed that most firms improved in performance after listing due to an increase in share prices, increase in the value of the firm, increase in goodwill, increase in the credibility of firms, increase in sales volume as a result of the publicity, and increase in the number of shareholders, among other factors. An increase in all these aspects leads to an increase in firm performance after listing.

Elaborating more about what causes the increase in firm performance after listing, one representative was recorded saying:

“When firms list with DSE, there are sets of regulations in the form of structures, requirements, checks and balances which firms have to obey. While ensuring obedience to these regulations, firms attract more investors, increase their operations, expand their capital and sales volume which partly leads to an increase in the performance trajectory after listing” (Firm representative, December 2020).

Another Key Informant while explaining the observed trend of firm performance after listing said that:

“In most cases when firms list, they delegate managerial functions to experts in the business who ensure that the firms continue being profitable. Because there is minimum interaction of shareholders in firms’ mundane activities, it gives experts a room for taking their roles effectively to ensure that the firms remain on track and profitable after listing” (Firm representative, December 2020).

3.2 REGRESSION RESULTS ON THE IMPACT OF LISTING ON FIRM PERFORMANCE

3.2.1 Impact of listing on a firm performance run by the random effect baseline model

The researcher conducted a regression analysis to analyse the impact of listing on firm performance. In doing this, the researcher used three estimations which were labelled 1, 2 and 3 by dropping the control variables and retaining the key variable. The aim of running all three estimations was to check if the results were consistent. The results of the baseline model are presented in Table 5.



Table 5: The Baseline Model of the Effect of GP on Firm Performance

Variables	(1)	(2)	(3)
Listing	15.3667*** (3.528)	15.6288*** (3.120)	16.8280*** (3.050)
Firm size	5.5294*** (1.429)	5.6765*** (1.844)	
Firm age		7.1472*** (2.122)	
Leverage	-19.5060** (9.199)	-20.6405** (9.899)	
Geographical Diversification		10.3716*** (3.950)	12.0164*** (4.539)
Firm Dummy	Yes	Yes	Yes
Time Dummy	Yes	Yes	Yes
Constant	29.3961** (13.647)	22.3996** (11.383)	33.6443*** (12.598)
Observations	114	114	114

Standard errors in parentheses Key: * Significant at 10%, ** significant at 5%, *** significant at 1%

The results in Table 5 indicate that listing had a positive statistically significant value to ROE for all three estimations. This implies that listing influences the performance of firms in terms of increasing their sales, capital, market share, liquidity and visibility. All these are attributed to regulatory aspects that listed firms have to adhere to as given by capital market regulators (Larrain *et al.*, 2021; Le *et al.*, 2020; Ghonyan, 2017). These results are contrary to those of earlier scholars (Park *et al.*, 2018; Lo *et al.*, 2017; Alanazi *et al.*, 2011). Moreover, the findings contradict the Agency Theory which assumes that as a result of conflicts of interest between managers and shareholders, firms are likely to suffer from the Agency cost which negatively affects firm performance after listing. In line with this contradiction, however, the Tanzania context depicts a different scenario whereby there is a limited conflict between managers and shareholders because the latter do not meddle in firms' daily operations; hence most of the listed firms remain profitable over time.

In a similar vein, all control variables (firm age, firm size, business diversification) used under this study had a positive statistically significant influence on firm performance. However, as expected, leverage had a negative statistically significant influence on firm performance. The depicted influence indicates that even the control variables could have a positive and negative impact on firm performance (Luu *et al.*, 2019; Jiang *et al.*, 2013).

Interview results from different key informants supplemented quantitative findings as they also showed that listing improved firm performance. They reported that considering ROE, most firms improve their ROE after listing because additional capital obtained from investors/shareholders are used to obtain infrastructure and other assets, as well as expanding firm operations and investment which helps improve firms' economies of scale.



3.2.2 Hypothesis testing on the impact of listing on firm performance

The study developed a single null hypothesis that was tested in this paper to analyse the impact of listing on firm performance. The null hypothesis developed for this paper was stated as follows:

H₀: Listing has no impact on the performance of firms listed at DSE

With regard to this null hypothesis, the findings provided evidence of rejecting the hypothesis because there was a remarkable impact on firm performance after listing.

3.2.3 Robustness Test for the impact of listing on firm performance

To check the validity and consistency of findings derived from the baseline model (as presented in Table 5) applied in the study, the researcher was motivated to conduct further sector-wise analysis. The analysis was based on the three sectors available at DSE. In this regard, all firms befalling in these sectors were used in the robustness check. Thus, the Banking and Finance [B&F] sector, Commercial Service [C&S] and Industry and Allied [I&A] sectors were used for analysis (DSE, 2018). Similar variables as those in the baseline model were used in this analysis. The results are presented in Table 6.

Table 6: Robustness test and sector wise analysis

Variables	1	2	1	2	1	2
	B & F	B & F	C & S	C & S	I & A	I & A
Listing	14.5879*	15.7683**	25.0732*	25.9333**	18.6350**	17.6424*
	(8.259)	(7.682)	(15.238)	(10.442)	(9.240)	(9.357)
Firm size	4.3904**		7.9038**		0.9610**	
	(1.955)		(3.216)		(0.397)	
Firm age		4.1265**		1.5055**		1.8163***
		(1.831)		(0.590)		(0.263)
Leverage	-27.4475*		-20.2432*		-27.2011*	
	(15.511)		(12.282)		(15.637)	
Geographical Diversification		26.6955**		23.1720**		21.9287***
		(13.087)		(10.572)		(6.149)
Firm Dummy	No	No	No	No	No	No
Time Dummy	Yes	Yes	Yes	Yes	Yes	Yes
Constant	92.7383***	79.2164***	0.0000	0.0000	0.0000	0.0000
	-21.536	-23.637	(0.000)	(0.000)	(0.000)	(0.000)
Observations	54	54	24	24	36	36

Standard errors in parentheses key: * Significant at 10%, ** significant at 5%, *** significant at 1%

The results in Table 6 indicate that listing had a positive effect on firm performance for all the three sectors used in this analysis. These findings confirm those obtained in the baseline model in Table 5 and show that they are robust and consistent. Based on the consistency of these findings, the null hypothesis was rejected.

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The study analysed the impact of listing on firm performance using secondary financial data from nineteen listed firms at DSE for six years. The study found that there was an



increase in firm performance after listing as compared to before listing. Further, it was confirmed that listing has a positive and statistical impact on firm performance. Thus it could be generalized that, as a result of firms' observance of standards and regulations preset by the regulatory authority, firms perform beyond their ordinary measures. All this leads to firms increasing their sales, increasing market shares, and expanding their operations and horizons which attract more revenue and profits registered by the firms. This partly explains why the performance of listed firms in the Tanzanian context is favourable for different investors. These findings imply that, for firms' optimal performance, there is a need for more firms to go public as they will shift the risk to other shareholders and acquire capital to finance their subsequent growth and investment activities.

4.2 Recommendations

Based on the findings, the researcher provides the following recommendations to regulators, government and policymakers as well as to shareholders.

The government, through Capital Market regulators (CMSA and DSE), needs to consistently provide awareness to non-listed firms on the importance of listing. Such awareness should be based on how the listing will improve its performance. This will attract more firms to list as a strategy to improve their performance. Further regulators should encourage upcoming firms to list in either the MIM or EGM, based on available criteria they can meet.

It is also recommended to the Government and Policymakers to develop the existing Stock Market and its institutions in Tanzania by investing more resources as they impact positively on firm performance. This is evident from the assistance DSE provides to listed firms which helps them improve their performance.

Moreover, it is recommended to shareholders to avoid meddling in the daily operations of firms since they have been handed over to experts. It should be understood that consistent meddling in the daily affairs of firms may escalate Agency Costs which may require the additional cost of settling it. Such costs have negative effects on firm performance.

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