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FINANCIAL REPORTING QUALITY AND INVESTMENT EFFICIENCY OF LISTED MANUFACTURING COMPANIES IN NIGERIA

ABSTRACT

This study examines the impact of financial reporting quality on the investment efficiency of listed manufacturing companies in Nigeria. The study population consist of all the listed manufacturing companies in Nigeria. The purposive sampling technique was employed to arrive at fortyeight companies for 2008-2018 using secondary data from annual reports and accounts. The study's findings confirm that financial reporting quality has a positive and significant impact on investment efficiency. On the contrary, financial reporting quality has a negative and significant effect on over-investment. The control variable study reveals that cash, past stock returns, tangibility, and age strongly impact investment efficiency. In contrast, leverage and size have a strong negative impact on investment efficiency. Hence, the study suggests that policymakers and market regulators should encourage more qualitative financial information disclosure.

Keywords: Financial reporting quality, investment efficiency, overinvestment, under-investment

Introduction

Prior studies from developed economies like the US and some emerging economies like China confirms that low-quality financial information is one of the main reasons for inefficient investment. However, it is unclear whether financial reporting quality (FRQ) negatively affects investment efficiency (IE) in Africa, particularly Nigeria. Therefore, this study examines the impact of FRQ on the investment efficiency (IE) of listed manufacturing companies in Nigeria. One reason for sub-optimal investment decisions is because of low-quality financial information. Hence, FRQ facilitates sound investment decisions (Chen, Hope, Li, & Wang, 2011). FRQ refers to the precision with which financial reporting conveys financial information about the firms' operation, especially its expected cash flow (G. C. Biddle et al., 2009).

Previous studies confirm that FRQ aids in achieving optimal investment decisions. High-quality financial information enables investors to predict future cash flows (Hayati & Sedaghat, 2016), thereby making proper investment decisions. Likewise, high-quality financial reports mitigate over-investment problems engaged by managers such as empire building (Biddle, Hilary, & Verdi, 2009; Jensen, 1986; Majeed, Zhang, & Muhammad, 2017). Prior literature establishes that high-FRQ reduces information asymmetry between firms and external capital providers (Majeed et al., 2017).

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For example, higher FRQ would allow firms with capital needs to attract additional capital by displaying projects with positive net present value to investors and mitigating adverse selection problems in securities issuance, thereby addressing sub-optimal investments. McNichols & Stubben (2008) opined that improving the quality of financial reporting minimises information asymmetry because this will also increase the investor's ability to monitor management's activities.

Based on this assertion, past studies empirically established that high-quality financial reporting has a positive relationship with IE (Biddle et al., 2009; Biddle & Hilary, 2006; Chen et al., 2011; Cherkasova & Rasadi, 2017; Fakhroni, Imam, Puji, & Yuyetta, Nur, Afri, 2018; Guariglia & Yang, 2016; Verdi, 2006) hence, addressing the problem of sub-optimal investment. In summary, higher FRQ reduces this problem in three ways; by mitigating the effect of information asymmetry, lowering agency costs and assisting in planning and valuation. Consequently, firms with a higher level of IE would have lower agency problems caused by the opportunistic behaviour of the management and a lower level of information asymmetry.

Prior studies have documented that FRQ can mitigate the effect of investment inefficiencies (e.g., Angela & Rilya, 2017; Biddle et al., 2009; Biddle & Hilary, 2006; Fusheng, Zhibiao, & John, 2015; Verdi, 2006). Managers are inclined to over-invest free cash in the absence of high-quality financial information. Thus, high-quality financial reporting increases transparency, discouraging managers from investing surplus FCF in less profitable projects. Richardson, (2006) opines that another reason for agency conflict between management and shareholders is that managers might over-invest the excess free cash of the firm in less productive projects. Managers may also connive with majority shareholders to expropriate minority shareholders in the presence of large FCF (Jensen, 1986). Hence, the availability of FCF in high-quality financial information forces managers to distribute surplus free cash as dividends. Thus high-quality financial information enhances IE, especially in the presence of FCF.

The manufacturing sector is critical in any economy that cannot be neglected (Ogunleye et al., 2018). It aids in the economic development and growth of any country worldwide. However, despite this significance, the Nigerian manufacturing sector has fared poorly due to the over-reliance on crude oil, inadequate infrastructures, shortage of skilled labour, and inadequate financial resources (Ku et al., 2010). A turnaround to this over-reliance is to ensure efficient investment of the resources in the manufacturing sector.

However, despite the significance of investment in this sector, most of the extant studies were carried out in advanced economies with little empirical evidence in emerging economies. More specifically, studies in emerging economies focused on Asia and South American countries like China, Malaysia, and Brazil. Hence findings from those countries may not have the same outcome with the African economy because of the difference in social, political and economic activities. Thus, the relationship between FRQ and investment inefficiency remains unclear in an African context. Likewise, findings from advanced countries may not sustain the prediction of agency theory from an African economy such as Nigeria. Consequently, this study extends the application of FRQ on investment efficiency in the listed manufacturing companies in Nigeria.

The rest of the study follows thus: Section two presents the review of related literature and research hypotheses. Section three develops the sample and presents the selected research methodology. Section four displays the main empirical results, and Section five presents the conclusion.

Literature Review and Hypothesis Development

The principal-agent conflict due to the misalignment of interest between managers, creditors and shareholders is a severe problem that causes distortions in investment decisions, which leads to sub-optimal investment

decisions. This conflict is more so since investment decisions share three critical features; irreversible, uncertainty and timing of the investment (Gao & Yu, 2018). Several extant studies have confirmed a positive and significant relationship between IE and high-quality financial reporting (Biddle et al., 2009; Biddle & Hilary, 2006; Chen et al., 2011; Cherkasova & Rasadi, 2017; Jafari, 2016; Verdi, 2006). The quality of financial information is one of the most critical inputs in decision-making regarding investment (Rad et al., 2016). Prior studies empirically indicate that higher financial information quality reduces adverse selection problems (Cherkasova & Rasadi, 2017; Nekhili et al., 2016), reduces moral hazard issues (Biddle et al., 2009; Guariglia & Yang, 2016), and reduces external financing cost (Ho et al., 2018).

One of the primary roles of accounting information is to facilitate efficient investment decisions (Kothari et al., 2010), thus emerging literature in finance focuses on the role of accounting information in investment decisions (Gao & Yu, 2018). It is in this regard that in recent years there is increased attention by researchers to examine the effect of FRQ on IE (e.g., Chen, Sun, & Xu, 2016; Ding, Guariglia, & Knight, 2012; Fakhroni et al., 2018; Filsaraei, Moradi, Zadeh, Bahadori, & Mohseni, 2016; Moez & Amina, 2018; Richardson, 2006). This focus becomes necessary because of the significance of investment to the firm's survival and the economy's advancement since investment is a crucial determinant of economic productivity (Biddle & Hilary, 2006).

Rad et al. (2016) argued that high-quality financial information reduces information asymmetry and the management ability for over-investment, thereby improving investors and shareholders ability to monitor managerial activities, thus checkmating inefficient investment. Similarly high-quality financial information also reduces agency-related problems among stakeholders (Biddle et al. 2009). Likewise, Chen et al. (2011) add that high-quality financial information dilutes the manager's power and authority in making decisions for their interests and forces them to make decisions to the benefit of the shareholders. On the other hand, Chen et al. (2011) find that both government and financial institutions benefit from high-quality financial reporting since it positively influences investment efficiency.

Because high-quality financial reports have minor information asymmetry, they are valuable to market participants (Martínez-Ferrero, 2014). Therefore, one of the main questions about the quality of financial reporting is its effect on investors' decisions. In other words, how do investors respond to high-quality financial reporting and vice-versa? According to the extant literature, firms with high-quality financial information has better IE. This is because the market positively assesses those firms which are more committed to the issuance of helpful information. (Aminu & Hassan, 2017; Biddle et al., 2009; Chen et al., 2011; Fusheng et al., 2015). As a result, leading to a more prosperous investment atmosphere for the benefit of all stakeholders.

FRQ requires firms to voluntarily expand the scope and quality of the information they report, which fully informs market participants to make well-grounded investment decisions (Martínez-Ferrero, 2014). This high-quality information facilitates greater transparency, reducing information asymmetries and satisfying investors and other stakeholders' needs. Past studies prove that FRQ assists in reducing information risk and liquidity problems (Lambert et al., 2007). It also prevents managers from using discretionary power for their selfish interests and helps them make efficient investment decisions (Chen et al., 2011). Similarly, quality financial reports can influence the cost of capital and future cash flows, thereby affecting investment decisions (Lambert et al. 2007). On the other hand, Chen et al. (2011) found that FRQ positively affects private firms IE in developing economies.

Panda & Leepsa, (2017) summarised the agency problem that has gone beyond the principal and the agent problem to include other stakeholders such as; majority shareholders, minority shareholders and creditors. The first type of problem is between the principal and the agents, which arises due to information asymmetry

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and differences in risk-taking attitudes. The second type of conflict is between majority shareholders and minority shareholders, whereby majority shareholders connive with managers to expropriate minority shareholders. Furthermore, the third type of problem is between owners and creditors when shareholders take a risky investment decision to the detriment of creditors. In all the above scenarios, high-quality financial information plays a critical role in mitigating the above problems and ultimately leading to investment efficiency.

Hence, it is safe to say that FRQ mitigates the problems of over-under investment from the discussion so far. Thus, based on the preceding, the following hypothesis is formulated as follows:

H1 FRQ is negatively associated with investment efficiency in the listed manufacturing companies in Nigeria.

H2 FRQ is negatively associated with over-investment in the listed manufacturing companies in Nigeria.

H3 FRQ is negatively associated with under-investment in the listed manufacturing companies in Nigeria.

Methodology

The population consists of all the sixty quoted manufacturing companies quoted in Nigeria as of 31st December 2018. The study used longitudinal data of FRQ and IE involving forty-eight companies from 2008-2018. Data for the study was collected from the annual reports and accounts of the manufacturing companies listed on the floor of the Nigerian Exchange Group. This paper adopts an explanatory research design. At the same time, the study employs the census sampling technique.

IE is measured using an accounting-based model developed by Richardson (2006). The model has been tested severally by prior research in this field (Cherkasova & Rasadi, 2017; Moez & Amina, 2018). The fitted values are assumed to be efficient investments, while the residuals are considered inefficient investments. Likewise, negative deviations from the model are under-investment, while positive deviations are over-investment. The model is represented thus;

 $\begin{aligned} \text{Investment}_{it} &= \beta_0 + \beta_1 \text{ Cash }_{i,t-1} + \beta_2 \text{ Return }_{i,t-1} + \beta_3 \text{ Growth}_{i,t-1} + \beta_4 \text{Size }_{i,t-1} + \beta_5 \text{ Age}_{i,t-1} + \beta_6 \text{ Leverage }_{i,t-1} + \beta_7 \text{ Investment }_{i,t-1} + \epsilon_{it}. \end{aligned}$

Where; Investment_{it} is the total proceeds from fixed-asset investment, plus expenses on research, development items and other acquisitions less proceeds from the disposal of non-current asset scaled by lagged aggregate asset for the company i at the end of year t-1.

Cash _{i,t-1}; means the proportion of cash and cash equivalents to the total asset of the company i at the end of year t-1.

Return $_{i,t-1}$; is the stock proceeds of the company i at the end of year t-1.

Growth_{i,t-1}; is the annual income growth proportion for the company i at the end of year t-1.

Size $_{i,t-1}$; is the log of total assets of the company i at the end of year t-1.

Age_{i,t-1}; is the difference between the number of years the firm has been registered and at the end of year t-1.

Leverage $_{i,t-1}$; is the company's leverage, that is, the proportion of total debt to shareholders equity of company i at the end of year t-1.

Investment _{i,t-1}; is investment before the current year.

FRQ is the independent variable for this study. The accruals quality model was used as a proxy for FRQ (Biddle et al., 2009; Chen et al., 2011; Fusheng et al., 2015; Mcdermott, 2012; Verdi, 2006). Following Francis, Lafond, Olsson, & Schipper (2005), accruals quality was measured using the Dechow & Dichev, (2002) model. The idea behind the measure is that accruals are approximate of future cash flows, and earnings will be more predictive of future cash flows when a lower estimation error is rooted in the accruals process. Discretionary accruals were estimated using the Dechow & Dichev, (2002) model augmented by the critical variables in the Jones (1991) model, as suggested by Mcnichols (2002). The model is a regression of working capital accruals on current, future and lagged cash flows plus the change in revenue and property, plant and equipment (PPE). All the variables are scaled by the average asset. The model is represented below:

 $TCA_{it} = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \beta_4 \Delta REV_{it} + \beta_5 PPE_{it} + \varepsilon_{it} \dots (iii)$

Where $TCA_{it} = \Delta CA_{it} - \Delta CL - \Delta cash + STDebt_{it} = Total Current Accruals in year t; CFO is cash flow from operations; <math>\Delta REV_{it}$ is the annual change in revenues; PPE_{it} is property, plant, and equipment.

Following prior studies, several control variables were included in this research to determine investment decisions (e.g., Chen et al., 2011; Cherkasova & Rasadi, 2017; Fusheng et al., 2015; Guariglia & Yang, 2016; Richardson, 2006). These control variables include; leverage, firm size, firm age, the level of cash, growth, cash flow from operations, tangibility, slack, past stock returns and prior firm-level investment. These variables are defined in the table below.

Variable	Definition	Measurement		
Cash _{i,t-1}	Level of liquidity	The proportion of cash to the total asset of firm i at the end of year t-1 (see,Biddle et al., 2009; Chen et al., 2011; Fusheng et al., 2015; Cherkasova & Rasadi, 2017)		
Return _{i,t-1}	Stock returns	Stock returns of firm i at the end of year t-1 (see, Fusheng et al., 2015)		
Growth _{i,t-1}	Growth opportunity	The proportion of change in sales from year t – 2 to t – 1 (see, Biddle et al., 2009; Chen et al., 2011; Fusheng et al., 2015; Cherkasova & Rasadi, 2017; Moez & Amina, 2018)		
Size _{i,t-1}	Firm size	Log of total assets of firm i at the end of year t- 1(see, Chen et al., 2011; Fusheng et al., 2015; Cherkasova & Rasadi, 2017; Moez & Amina, 2018)		
Slack	Slack	the ratio of cash to non-current assets (Biddle et al., 2009; Biddle & Hilary 2006; Verdi, 2006; Chen et al., 2011)		
CFO	cash flow from operations	the ratio of cash provided by operating activities to sales (Biddle et al., 2009; Biddle & Hilary 2006; Verdi, 2006)		
Age _{i,t-1}	Age of the firm is the number of years the firm has been in existence	is the difference between the first year of incorporation to the current year (see, Fusheng et al., 2015)		
Tangibility	Tangible assets	the proportion of non-current assets to total assets (Biddle et al., 2009; Biddle & Hilary 2006; Chen et al., 2011)		
Leverage _{i,t-1}	Financial leverage	The percentage of the sum of the total debt to total assets for firm i at the end of year t-1(see, Biddle et al., 2009; Moez & Amina, 2018)		

Table 1 Control Variable Definition and Its Measurement

Lagged investment	prior firm-level investment	Investment before the current year (Cherkasova & Rasadi, 2017; Moez & Amina, 2018; Richardson,
		2006)

Source: Extracted and summarised by the Researcher from previous studies

The following regression model was utilised in assessing the effect of FCF on IE.

 $I^{*}new_{i,t} = \beta_{0} + \beta_{1}FRQ_{I,t-1} + \beta_{2}Cash_{i,t-1} + \beta_{3}Ret_{I,t-1} + \beta_{4}Grwt_{I,t-1} + \beta_{5}Size_{I,t-1} + \beta_{6}Slack_{I,t-1} + \beta_{7}CFO_{I,t-1} + \beta_{8}Age_{i,t-1} + \beta_{9}Tan_{i,t-1} + \beta_{10}Lev_{it} + \beta_{11}Inv_{I,t-1} + \varepsilon_{it}....(i)$

Where:

I*new = Investment Efficiency

FRQ = Financial Reporting Quality

Cash = Cash

Ret = Stock returns

Grwt = Growth

Size = Size

Slack = Slack

CFO = Cash flow from operations

Age = age

Tan = Tangibility

Lev = Leverage

Inv = Previous investment

 $I^{E}new_{i,t} = \beta_{0} + \beta_{1}FRQ_{I,t-1} + \beta_{2}Cash_{i,t-1} + \beta_{3}Ret_{I,t-1} + \beta_{4}Grwt_{I,t-1} + \beta_{5}Size_{I,t-1} + \beta_{6}Slack_{I,t-1} + \beta_{7}CFO_{I,t-1} + \beta_{8}Age_{i,t-1} + \beta_{9}Tan_{i,t-1} + \beta_{10}Lev_{it} + \beta_{11}Inv_{I,t-1} + \varepsilon_{it}$ (ii)

Where:

 I^{E} new = Overinvestment, the rest of the variable is as defined in equation (i)

$I^{E}new_{i,t} = f$	$\beta_0 + \beta_1 F$	$RQ_{I,t-1} + \beta_2$	2 Cash i,	$t-1 + \beta_2$	3 Ret I,t-1	$+\beta_4$ Grwt	t _{I,t-1} +	β5Size I,t	$-1 + \beta_6$ Slack I,t-1 +	β7CFO	I,t-1 +
β8Age _{i,t-1}	+	β9Tan	i,t-1	+	β_{10}	Lev	it	+	β_{11} Inv _{I,t-1}	+	ϵ_{it}
							(iii)				

Where:

 I^{E} new = Underinvestment, the rest of the definition of the variable name is the same as equation (i)

Results and Discussions

Variables	OBS	Mean	STD	Min	Max
InvEff	528	0.0535	0.0206	0.0065	0.0959
OverInv	222	0.0694	0.0770	0.0000	0.3876
UnderInv	306	0.0504	0.2218	-0.1262	3.8112
FRQ	528	0.8361	0.3314	0.0000	3.5541
Cash	528	0.1004	0.1810	0.0000	1.3431
Return	528	0.0174	0.3614	-0.8894	0.7565
Growth	528	0.0695	0.2256	-0.3901	0.5330
Size	528	9.0504	2.9632	0.0000	12.207
Slack	528	0.2322	0.2857	0.0000	1.6898
CFO	528	0.1153	0.1859	-0.3261	0.5435
Age	528	39.659	22.696	0.0000	94.000
Tan	528	0.3936	0.2559	0.0000	1.1899
Leverage	528	0.5403	0.3710	0.0000	3.7225
Lag Inv	528	0.0477	0.0315	-0.3490	0.1662

Table 2 Descriptive Statistics

Source: Computed by the Researcher using STATA

Table 2 presents the summary of the study's variables for 528 firm-year observations from 2008-2018. The mean of IE shows an average value of about 0.054. This mean value shows that listed manufacturing companies in Nigeria invest, on average, about 5.4% of their assets efficiently. This value of 5.4% is lower than the (Cherkasova & Rasadi, 2017) result of 0.07 and lower than the mean value of (Moez & Amina, 2018) of 0.09. Likewise, the mean value is also lower than 13.1% of (Richardson, 2006). The result shows that the advanced countries have a higher investment efficiency level than emerging economies (Moez & Amina, 2018; Richardson, 2006).

The 222 firm-year observations highlighted above show a summary of overinvesting companies in Nigeria. The mean value is 0.069. This value shows that listed companies in Nigeria overinvest, on average, about 6.9% of their assets. Compared to the average value described by (Wang et al., 2015), which is 0.085 and that reported by (Cherkasova & Rasadi, 2017) of 0.071 are all higher than the average value of this study's result of 0.069. However, the average value of (Moez & Amina, 2018) of 0% is lower than this study's result. From the result displayed so far, it is clear that there is a variation in overinvestment in emerging economies. However, the results reveal that overinvestment in emerging economies like China and Eastern Europe is higher than Nigeria. Though, developed nation-states have lower investment inefficiency problems, as shown from extant research such as Moez & Amina (2018); Richardson (2006).

The table above shows that 306 firm-year observations are for underinvesting firms from 2008-2018. The average value of 0.05 indicates that firms listed in Nigeria underinvest about 5% on average assets. The mean value of 0.05 is higher than the summary result of (Cherkasova & Rasadi, 2017) of 1.6% but lower than the average value of 0.07 displayed in (Fusheng, Zhibiao, & John 2015). These results indicate that emerging economies have a higher rate of underinvestment than advanced economies.

	Model 1	Model 2	Model 3
Constant	0.0939***	0.0985***	0.0529
	(0.0034)	(0.0176)	(0.0379)
FRQ	0.0892**	-0.0638**	0.0445
	(0.0042)	(0.0291)	(0.0759)
Cash	0.0347***	-0.0420	-0.2483**
	(0.0108)	(0.0745)	(0.12086)
Return	0.0221***	-0.0057	-0.0339
	(0.0037)	(0.0135)	(0.0425)
Growth	0.0085	-0.062*	-0.0276
	(0.0052)	(.03197)	(0.0531)
Size	-0.0064***	-0.0090	0.0016
	(0.0007)	(0.0064)	(0.0092)
Slack	-0.0036	0.1276**	0.1567**
	(0.0096)	(0.0543)	(0.0633)
CFO	-0.0012	-0.0096	0.1704 **
	(0.0094)	(0.0562)	(0.0807)
Age	0.0004***	-0.0004	-0.0015**
	(0.0001)	(0.0010)	(0.0007)
Tan	0.0137***	-0.0638	-0.0136
	(0.004)	(0.0443)	(0.0664)
Lev	-0.0266***	0.03781**	0.0431
	(0.0019)	(0.0162)	(0.0466)
-Inv	0.068**	0.2784	0.7100*
	(0.0052)	(0.2727)	(0.4290)
R-Sq.	0.457	0.0558	0.077

Table 3: Regression Result of the impact of FRQ on IE

Source: Computed by the Researcher using STATA

***, **, * denote that the parameter estimates are statistical significant at 1%, 5% and 10% levels respectively. Standard errors in parentheses

Model one in Table 3 presents the relationship between the FRQ and IE, answering research hypothesis one. The FE regression result reveals that FRQ has a positive and statistically significant relationship with IE of listed firms in Nigeria at a 5% significance level. This implies that an increase in FRQ increases IE after controlling for other variables in the model. These findings are consistent with the findings of (Biddle & Hilary, 2006; Chen et al., 2011; McNichols & Stubben, 2008; Verdi, 2006), who found that investment has a significantly positive relationship with FRQ in the USA and China, respectively. This means that firms with low FRQ may experience investment inefficiencies due to low-quality financial information since FRQ is a significant determinant of investment efficiency in listed manufacturing firms in Nigeria. Base on the regression result of model one, the null hypothesis one is therefore accepted.

The OLS regression results reveal that cash, past stock returns, age, and tangibility are positively and statistically significant at a 1% significance level with IE for the control variables. This indicates that an increase in one of these control variables will have a proportionate increase in the level of investment efficiency. This also means that these control variables are essential determinants of efficient investment; thus, an increase in one results in a corresponding increase in investment efficiency in Nigeria's listed manufacturing companies. Contrastingly, leverage and size have a negative and statistically significant

relation with IE at a 1% significance level. This means that as leverage and size increase, investment efficiency reduces, thus having an inverse relationship. Many factors can lead to this inverse relationship, subsequently leading to inefficiencies in investment. Finally, growth has a positive but statistically insignificant relationship with IE, whereas cash flow from operations and slack has a negative but statistically insignificant relationship with IE. Since FRQ is enormously significant in influencing IE, this allows for rejecting the null hypothesis two of this study.

Model 2 from Table 3 presents the results of the relationship between the dependent variable overinvestment and the independent variable FRQ, as well as the control variables (growth, leverage, cash, return, age, tangibility, cash flow from operations and slack), thus providing the answer to research hypothesis two. From the table, it is observed that the result reveal that FRQ has a negative and statistically significant impact on overinvestment at a 5% level of significance of listed manufacturing firms in Nigeria. This implies that an increase in reporting quality will translate into a corresponding decrease in the level of overinvestment. The findings also support the overwhelming majority of previous studies such as Richardson (2006), Verdi (2006), Biddle et al. (2009), Chen, Hope, Li, & Wang, (2011) Gilaninia, Chegini, & Mohammad, (2012) Fusheng et al. (2015), Chen et al. (2016) Cherkasova & Rasadi, (2017). Similarly, growth has a negative and significant impact on overinvestment at a 10% level of significance. Hence, an increase in revenue will lead to a resultant decrease in overinvestment. On the opposite, leverage and slack have a positive and significant impact on overinvestment. Hence an increase in either leverage or slack will invariably lead to overinvestment. Since FRQ has an inverse relationship with overinvestment, this provides the basis for accepting the null hypothesis two of the study.

Model 3 from Table 3 presents the impact of the independent variable (FRQ) and the control variables (growth, leverage, cash, size, return, tangibility, lagged investment, cash flow from operations and slack) on the dependent variable underinvestment. From the table, it is observed that the regression model result reveal that FRQ has a positive but statistically insignificant impact on underinvestment in the listed manufacturing firms in Nigeria. This means that FRQ does not increase nor reduce underinvestment in the sampled firms. Similarly, slack, cash flow from operations and lagged investment have a positive and statistically significant impact on underinvestment at 5% and 10% significance levels. This clearly shows that slack, cash flow from operations and lagged investment sensitivity. Hence, worsening the level of underinvestment among firms prone to underinvestment in the listed manufacturing firms in Nigeria.

On the contrary, age has a negatively and statistically significant impact on underinvestment. This shows that the longer the company's operation period, the lower its tendency to underinvest in the listed manufacturing sector in Nigeria. Since FRQ is not significant in influencing underinvestment, this provides the basis for accepting null hypothesis three of the study.

Conclusion

This study provides an insight into the relationship between FRQ and IE of listed manufacturing companies in Nigeria. It also went further to examine the effect of FRQ on over-and-underinvestment. Two major conclusions emerge from this work. On the one hand, FRQ plays a significant role in the quality of investments in listed manufacturing companies in Nigeria. Likewise, on the other hand, manufacturing firms with higher financial information quality are less likely to overinvest or deviate from their predicted level of investment. Hence financial reporting quality curbs overinvestment problems. As such, the study suggests that policymakers and market regulators should encourage the disclosure of more qualitative financial information to aid in making more informed investment decisions and reducing the problem of asymmetric information. Also, the accounts of listed manufacturing firms in Nigeria related to the maintenance of assets in place, such as depreciation, which can be used as avenues for earnings manipulation, thereby giving false information about the proper health of the firm, should be adequately observed by investors

However, this study is not without limitations. This work only dwells on the impact of FRQ on IE. Future studies can look at other aspects that influence investment, such as the impact of investment on audit quality. Another limitation is that the findings of this study cannot be generalised to other countries, significantly advanced countries, because of the peculiarities of emerging markets which are reasonably different from that of an advanced country.

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