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BUSINESS EVOLUTION AND INCOME SMOOTHING PRACTICES OF MANUFACTURING FIRMS IN NIGERIA

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Abstract
The aim of the study was to examine the relationship between business evolution and income smoothing practices of manufacturing firms in Nigeria. The study employed the ex-post causal research design. The sample for this study consisted of 31 manufacturing firms quoted on the Nigerian Exchange Group with data for the period 2014-2023. The simple random sampling technique was employed in the selection. In this study, secondary data, by way of annual reports and accounts of the sampled manufacturing firms in Nigeria were used. The data were analyzed by means of Method of Moment Panel Quantile Regression using Stata 17 and E-views version 10 packages. The findings of this study revealed that: (i) Introductory life cycle stage does not significantly affect income smoothing practices of manufacturing firms in Nigeria, however the effect is positive (ii) Growth life cycle stage significantly and positively affects income smoothing practices of manufacturing firms in Nigeria, (iii) Mature life cycle stage significantly but negatively affects income smoothing practices of manufacturing firms in Nigeria and (iv) Decline life cycle stage has insignificant effect on income smoothing practices of manufacturing firms in Nigeria. The study therefore recommended the need for effective corporate monitoring so as to discourage income smoothing at all stages of the firm's life cycle. It was recommended that regulatory bodies should pay close attention to companies in growth, mature and decline stages given that the findings of this study suggest that the tendency for income smoothing is strong at these stages.
Keywords: Business Evolution, Income Smoothing, Manufacturing Firms, Life Cycle Stage

Introduction
Income smoothing remains a major source of concern for a wide range of stakeholders, including financial reports users, accounting authorities, and keen observers of the financial reporting process, such as academics. The primary goal of financial reporting is to offer information about a company that can be used by a variety of people to make economic decisions. Many readers of corporate financial reports, however, challenge the legitimacy of this goal because of the possible influence of company management's income smoothing methods on the information content of such reports (Yusof, 2020). As a result, income smoothing is becoming a significant source of worry, impacting the reputation of accounting and auditing negatively. While the subject of profits management is not new, it remains an important topic in accounting study. Several viewpoints on the subject have emerged as a result of the necessity to regulate the widespread behavior of income smoothing.

From a life cycle perspective, this study investigated how manufacturing companies' income smoothing strategies have changed over time. Stakeholders' efforts to devise procedures and mechanisms to limit the corporate natural desire to manage earnings have typically resulted in greater complexity as a result of the focus on methods to minimize income smoothing techniques in organizations, which has typically been extremely inclusive. According to the agency theory, managers may act opportunistically in an effort to secure their positions without necessarily aligning their actions

with the interests of shareholders. The life cycle hypothesis states that a firm exhibits a variety of economic and risk characteristics at various stages of its life cycle (Bixia, 2007).
Mueller (1972) came up with the firm's life cycle hypothesis, which examines how a business develops, matures, and eventually declines. We argue that companies in the introduction stage are unlikely to use real-activities-based income smoothing to avoid reporting losses because they are unlikely to have much discretion over their spending to make discretionary cuts based on the activities that companies prioritize in each stage, or the supply-side. Real-activities based earnings management becomes less necessary to achieve earnings targets because capital providers are likely to anticipate that businesses in the early stages of development will report losses.
Companies in the growth and mature stages are likely to use optional costs more frequently in order to avoid reporting losses.
Various empirical investigations on the link between business life cycle and income smoothing have been carried out in industrialized countries. Tofigh (2019), Moshtagha (2014), Dehdar (2007), Osta and Qytasy (2012), Dickinson (2011), Liu and Wysocki (2005) are only a few examples. Due to variations in disclosure requirements, corporate governance standards (which have been experimentally established as positively improving profits management), and economic volatility, the conclusions from that research may not be relevant in emerging economies like Nigeria. Despite the well-established link between business life cycle and income smoothing, empirical research in the Nigerian setting is still scanty.
The result of the previous studies on the relationship between income smoothing and firm life cycle are not moving in the same direction. For instance, Dickinson (2011), Wysocki (2005) finds negative relationship between income smoothing and growth stages. The study of Dehdar (2007), Osta and Qytasy (2012) finds positive relationship between income smoothing and growth stage while the study of Mostagha (2014) finds no relationship. The inconsistency in findings made it difficult to draw facts for policy implication and hence this study.

Literature review

Income smoothing

For the past two and a half decades, income smoothing has been at the center of accounting study. According to Yusof (2020), the majority of the literature on profits management is around the agency theory, which claims that managers (agents) do not always act in the best interests of their shareholders (principal). As a result, managers occasionally alter profits statistics in financial reports for a variety of reasons. As a result, income smoothing is likely to lower the quality of reported results and their utility for investment choices, lowering investor trust in financial reports.
Income smoothing, according to Schipper (2009), is a deliberate intervention in the external financial reporting process with the goal of generating some private advantage (as opposed to say, merely facilitating the neutral operation of the process). Ortega and Grant (2003) suggest that earnings management manipulates the company's financial outcomes by utilizing financial reporting flexibility. Management attempts to influence or manipulate reported results by employing certain accounting procedures, accelerating cost or revenue transactions, or using other strategies aimed to impact short-term profitability are known as income smoothing (Isenmila & Afensimi, 2012). The phrase, in its broadest sense, relates to the systematic distortion of a company's or organization's genuine revenue and assets (Beneish, 2001).

Firm Life Cycle

The evolution of a business is reflected in the firm's life cycle, which is influenced by both observable and unobservable elements. Furthermore, although some of the elements, such as a company's strategy and management, are internal to the company, others, such as the industry's and macroeconomic climate, are external. Despite the fact that studies in the strategy, organization, and management literature have long acknowledged the relevance of the firm life cycle and have utilized life cycle

theory to describe a business's evolution and activities, the accounting research has only lately begun to pay attention to it (Dickinson 2011; Hribar & Yehuda 2015; Drake & Martin 2015). Nonetheless, from an accounting standpoint, including the life cycle is critical (Dickinson 2011).

The life cycle hypothesis states that all organizations and enterprises, like other living things, are born, develop, grow, and die (Dechew & Dichev, 2005). A firm is a dynamic entity that changes through time through discrete stages of growth, according to the organizational literature (Quinn and Cameron 1983; Miller & Friesen 1984; Mueller 1972). The firm life cycle is the series of life cycle stages that a company goes through from its inception to its final demise.

In the literature linked to this study, various-stage models for the corporate life cycle have been proposed, and within their frameworks, businesses and enterprises pursue certain policies based on the economic phases in which they are. Such policies are reflected in company accounting data in some way (Dechow & Dichew, 2005). The business lifetime is divided into four stages, according to researchers: introduction/birth, growth, maturation, and decline (Stickney & Weil 2006; Stickney & Brown 1999).

Measurements of firm life cycle

Despite the fact that the life cycle theory clearly shows that companies pass through discrete life cycle stages, finding a measure that can properly classify a firm into one of the defined stages remains a difficulty.

Dickinson (2011) presents and confirms a life cycle proxy based on the cash flow pattern of businesses. Dickinson's (2011) life cycle based on cash flows is used in this study. Dickinson's (2011) life cycle proxy, in contrast to other life cycle proxies previously utilized, shows all critical life cycle traits discovered in previous studies. More particular, because cash flow patterns change over time both inside and between enterprises, this life cycle proxy's flexibility allows firms to travel back and forth along the life cycle continuum. Furthermore, it does not require a business to go through all stages of the life cycle, nor does it demand a uniform distribution of companies throughout stages of the life cycle.

Table 1

FIRM LIFE CYCLE MEASUREMENT USING CASH FLOW BEHAVIOUR

CIRCLE	CASH FLOW	BEHAVIOUR
Introductory	Operating	Negative
	Investing	Negative
	Financing	Positive
Growth	Operating	Positive
	Investing	Negative
	Financing	Positive
Maturity	Operating	Positive
	Investing	Negative
	Financing	Negative
Decline	Operating	Negative
	Investing	Positive
	Financing	Positive

Source: Dickinson Model (2011)

Firm Life Cycle Theory

Mueller (1972) offered a formal notion that a firm's life cycle is rather well characterized. Mueller (1972) proposes that a corporation emerges from an attempt to exploit an "innovation involving a new product, process, marketing, or organizational approach," drawing on the work of Knight (1921) and Schumpeter (1934). During the early phases of development, the company devotes all of its resources on furthering the innovation and increasing its profitability. The company's development will likely be

sluggish until it has effectively resolved "teething concerns" and established a market presence. Following that, the company will develop swiftly as it enters new areas and grows its client base ahead of any big competition.

At this level, the agency problem is either non-existent or insignificant. After a period, rivals enter the market, adopting and building on the inventions of the pioneering enterprise. As old markets get saturated and new markets become more difficult to locate, the firm's growth begins to stagnate. The company must continue to innovate in order to preserve its growth and profitability. However, as the company expands, its ability to analyze information deteriorates, and the ordinary manager's risk-taking incentives dwindle.

In summary, according to Mueller's (1972) life cycle theory, the normal business will have an S-shaped growth pattern, with a period of sluggish growth at the outset, followed by a time of fast expansion, and finally maturity.

Several accounting researchers have adopted Mueller's (1972) life cycle theory (Knott and Posen, 2005, Castanias & Helfat, 2001, Granlund & Taipaleenmaki, 2005, Christensen, 2003; Sudarsanam & Lai, 2001; Tofigh 2016; Moshtagha, Abbaszadehb, Nowghabic, & Nowghabid 2014; Cohen & Zarowin's 2010; Aharony

Agency Theory

Initially put forth by Ross in the 1970s (Ross, 1973), agency theory was later connected to agency costs by Jensen and Meckling (1976). An agency relationship, as defined by Jensen and Meckling (1976), is "a contract in which one or more individuals (the principals) employ another person (the agent) to execute some service on their behalf and delegate some decision-making authority to the agent." The relationship between agents (management) and their principals (customers, investors) is explained by the agency theory. When the objectives of the agents and the principals diverge, there are issues that agency theory attempts to solve. Principals won't be able to assess whether an agent's activities are in the best interests of the company since they don't have access to all pertinent information at the time the agent makes a decision. In order to achieve optimality, principals and agents engage in contracting, which involves putting in place conflict-reduction measures like auditing (Egbunike & Abiahu, 2017; Abiahu, Udeh, & Ogbekhilu, 2018).

Empirical review

The relationship between business life cycle and income smoothing has been studied in a number of empirical researches.

Almeida and Kale (2023) investigated the impact of a firm's stage in its life cycle on accrual quality. They expanded on the data from earlier research that used an integrated strategy to examine the characteristics of accrual quality and business life cycle. According to their research, organizations in the growth and mature stages report accruals of a better quality than those in the introduction and decline periods.

In their study, Khuong, Anh, and Van (2022) looked at how the state-owned enterprises (SOEs) in Vietnam acted as a moderator in the relationship between firm life cycle (FLC) and earnings management (EM). They employed a sample of 622 Vietnamese listed firms from 2010 to 2019 in their study. To minimize autocorrelation and heteroscedasticity violations, they applied FE Robust on all models. The findings demonstrated that accrual earnings management (AEM) behaviour varied between business life cycle phases.

According to research by Jaggi, Allini, Casciello, and Meucci (2022), managers are motivated to manage reported earnings differently in order to accomplish their objectives because of the variations in economic development and stability of enterprises at various points of their life cycles. Their results confirm the hypothesis that during the startup and decline phases of the firm's life cycle, managers use positive discretionary accruals to increase reported profitability.

Ogbole (2021) looked at how company characteristics affected how listed manufacturing businesses in Nigeria managed their earnings. The research population consisted of 71 listed manufacturing businesses as of December 31, 2018, and data was gathered from a sample of 53 companies during a 20-year period (1999 to 2018). The dependent variable earnings management was measured using accrual Based earnings management and real-activities based earnings management, while the independent variable firm characteristics was measured using company size (CSIZE), profitability (ROA), leverage (LEV), internationality (INT), auditor type (AUDT), and company age (AGE).

The study revealed that, depending on the variables and proxies used to capture company characteristics and earnings management, the characteristics of the business had different effects on earnings management in the survey of listed manufacturing companies in Nigeria.

From the review of the literature, it is observed that looking at income smoothing through the lens of the firm life cycle has not received much attention in the Nigerian environment. Most of the studies and researches in the area have been done for foreign economies. Hence not much is understood regarding how earnings management evolves through an evolutionary path using the firm life cycle.

Methodology

Research design and data collection

This study utilized the longitudinal data design which is a combination of both cross-sectional and time-series design properties. The data used for this research were collected from audited financial statements of manufacturing companies in Nigeria for a ten-year period (2014-2023).

Population and sample

The population of this study comprised of all manufacturing firms in Nigeria for the period 2014 to 2023 from which a sample of 31 firms was drawn.

Data analysis technique

This study adopted the Method of Moment Quantile Regression (MMQR) with fixed effect as developed by Machado and Silva (2019) to examine the heterogenous effect of business life cycle stages on income smoothing practices of manufacturing firms in Nigeria.

Model Specification.

The model for the study adopted that of Cohen and Zarowin (2010). The model for the study is specified below:

$INSMT_{it} = f$(Firm life cycle) ----------(i)

Decomposing firm life cycle into the four stages [introduction, growth, mature and decline), we have:

$INSMT_{it} = \partial_0 + \partial_1 INTRO_t + \partial_2 _{it} GROWTH + \partial_3 MATURE_{it} + \partial_4 DECLINE_{it} + \partial_5 FSIZE_{it} + \partial_6 LEV_{it} + \mu_{it}$ ---------- (ii)

Where:

INSMT= Income Smoothing; INTRO = Introductory stage ; GROWTH= Growth stage; MATURE=Mature stage ; DECLINE= Decline stage, FSIZE= Firm size, LEV= Leverage; i =ith firm; μ_{it} = Model disturbance term; i = number of sampled cross-sectional firms, t = time period of the sampled companies.

The apriori signs are $\partial_1 < 0$, $\partial_2 < 0$, $\partial_3 < 0$,

The generalized method of moments quantile regression (MMQR) is specified as

$$Qy_{it,\tau}(\tau_{it} / Z_{it}) = \beta_{it}(\tau) + \alpha(\tau_{it}) X_{it}^{1} + \mu_t \ldots\ldots\ldots\ldots\ldots\ldots (iii)$$

Where the parameter $\alpha(\tau_{it})$ measures how the covariates influence the location, scale and shape of the conditional variance of the dependent variable of company i at time period t, α measures companies' specific effect and τ is the τ^{th} percentile as it drives changes in response variable. The study modified equation iii in line with equation ii in order to specify the estimated model as

$INSMT_{it} = \beta_{it}(\tau_{it}) + \alpha_{1it}(\tau_{it})\ INTRO_{it} + \alpha_{2it}(\tau_{it})GROWTH_{it} + \alpha_{3it}(\tau_{it})MATURE_{it} + \alpha_{1it}(\tau_{it})DECLINE_{it} + \alpha_{2it}(\tau_{it})FSIZE_{it} + \alpha_{1it}(\tau_{it})LEV_{it} + \mu_{it}$ ------ (iv)

Where the variables in iv are as defined in equation ii above, μ = white noise error term.

Decision Rule

The null hypothesis would be accepted if the p-value calculated is greater than the 5% significant level. The null hypothesis would be rejected if the p-value calculated is less than 5% significant level hence alternate hypothesis would be accepted.

Data analysis

Descriptive statistics

The preliminary analysis is first examined and here we discuss the descriptive statistics results, the Pearson product moment correlation results as a correlation matrix used to examined both the strength of the relationships between variables as well as the presence of multicollinearity in the model. After that, the panel regression results is presented. The results are presented and analysed below:

Table 4.1: Descriptive Statistics and Correlation Matrix

Panel 1: Descriptive Statistics							
	INSMT	INTRO	GROWTH	MATURE	DECLINE	FSIZE	LEV
Mean	-0.061	0.077	0.151	0.597	0.042	7.174	0.590
Median	-0.064	0.000	0.000	1.000	0.000	7.220	0.570
Maximu	0.819	1.000	1.000	1.000	1.000	8.760	1.680
Minimu	-1.471	0.000	0.000	0.000	0.000	5.090	0.120
Std.Dev	0.169	0.267	0.359	0.491	0.201	0.779	0.208
Skewne	-1.254	3.162	1.942	-0.394	4.571	-0.291	1.215
Kurtosis	21.42	11.00	4.774	1.156	21.89	2.517	6.658
J-Bera	4466.1	1343.4	235.7	51.98	5688.3	7.384	249.1
Prob	0.0000	0.000	0.000	0.000	0.000	0.025	0.000
Panel 2: Correlation Matrix							
INSMT	1.000						
FSIZE	0.008	1.000					
GROWT	-0.026	0.093	1.000				
INTRO	-0.258	-0.040	-0.122	1.000			
LEV	-0.300	-0.100	0.104	0.158	1.000		
MATUR	-0.361	0.113	-0.514	-0.352	-0.113	1.000	
DECLI	0.272	-0.064	-0.088	-0.061	-0.123	-0.254	1.000

Source: Researcher's computation (2025).

Table 4.1 (Panel 1) shows the descriptive statistics for the variables and as observed, the mean values for INSMT stood at -0.0617 with a maximum and minimum values of 0.819 and -1.47 respectively. The descriptive statistic for the life cycle stages reveals that about 7.7% of the sample companies are in the introductory stage, 15.16% of the sampled companies are in the growth stage, 59.67% of the companies are in the mature stage and 4.2% of the companies are in the decline stage. The statistics show that companies in the introductory stage are the fewest while those in the growth stage are the highest followed by those in the mature stage. Firm size has mean value of 7.17 with minimum of 5.09 to a maximum of 8.76. The mean for LEV is 0.590 with maximum and minimum values of 1.68 and 0.12 respectively. The mean for firm size (FSIZE) as measured using the log of total assets is 7.17, with a standard deviation of 0.78. The kurtosis statistic which measures the peakedness of the normal distribution curve indicates that FSIZE is normally peaked while INSMT, INTRO, GROWTH, DECLINE and LEV have peak above the normal and MATURE exhibit kurtosis below the normal peak. Skewness statistic which measures the shape of the curve indicates that ENMGT, MATURE

and FSIZE are negatively skewed while rest are skewed to the right. The Jacque-bera probability values for all the variables are less than 0.05 which suggest the deviation from normal distribution which justifies the choice of quantile regression in panel data analysis framework to ensure robust result

Panel 2 (Table 4.1) presents the correlation results and as observed, the correlations are examined across the corporate life cycle stages. Particularly, the study is concerned with the correlations between earnings management as measured by discretional accruals and the life cycle stages. As observed, discretionary accruals is negatively correlated with INTRO (r=-0.258) only but positively correlated with GROW (r=0.026), MAT(r=0.361) and DEC (r=0.0272). In addition, LEV is negatively correlated with ACCRUAL (-0.300) and positively with FSIZE (0.008). However, it suffices to note that correlations are limited in terms of inferential abilities and that is because they do not necessarily imply functional causality in a strict sense. The correlation matrix indicates no multicollinearity in the model as the correlation coefficients between the explanatory variables are below 0.8. Thus, the model satisfies the basic classical assumptions of no perfect correlation between two or more explanatory variables.

Methods of Moment Panel Quantile Test.

Table 4.2: Summary of MM Quantile Regression (MMQR) Results

	INSMT						
Quantile	INTRO	GROWTH	FSIZE	MATUR	DECINE	LEV	Constant
Location	0.097**	0.0838***	0.0114	-0.141***	0.104*	-0.270***	0.101
	(0.048)	(0.009)	(0.300)	(0.000)	(0.083)	(0.000)	(0.207)
Scale	0.021	0.0214	-0.023***	-0.0267	0.041	0.097**	0.210***
	(0.532)	(0.352)	(0.003)	(0.164)	(0.337)	(0.012)	(0.000)
Q_10	0.064	0.0513	0.0469***	-0.1009**	0.042	-0.418***	-0.2174*
	(0.388)	(0.293)	(0.004)	(0.013)	(0.648)	(0.000)	(0.073)
Q_20	0.078	0.0645	0.033**	-0.117***	0.067	-0.358***	-0.0881
	(0.194)	(0.101)	(0.016)	(0.000)	(0.362)	(0.000)	(0.373)
Q_30	0.085	0.0713**	0.025**	-0.1258***	0.080	-0.327***	-0.0214
	(0.118)	(0.045)	(0.038)	(0.000)	(0.228)	(0.000)	(0.809)
Q_40	0.0917*	0.078**	0.0174	-0.1345***	0.0936	-0.295***	0.047
	(0.068)	(0.018)	(0.117)	(0.000)	(0.129)	(0.000)	(0.562)
G_50	0.097**	0.084***	0.0113	-0.141***	0.104*	-0.270***	0.102
	(0.046)	(0.009)	(0.296)	(0.000)	(0.082)	(0.000)	(0.203)
Q_60	0.104**	0.090***	0.0043	-0.149***	0.117**	-0.241***	0.164**
	(0.035)	(0.005)	(0.689)	(0.000)	(0.054)	(0.000)	(0.040)
Q_70	0.109**	0.095***	-0.0098	-0.156***	0.126**	-0.219***	0.2122***
	(0.033)	(0.005)	(0.931)	(0.000)	(0.045)	(0.000)	(0.011)
Q_80	0.118**	0.104***	-0.011	-0.167***	0.143**	-0.178***	0.301***
	(0.040)	(0.006)	(0.400)	(0.000)	(0.042)	(0.006)	(0.002)
Q_90	0.131*	0.118**	-0.0256	-0.183***	0.169**	-0.117	4322***
	(0.065)	(0.013)	(0.122)	(0.000)	(0.054)	(0.150)	(0.000)

Probability values in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Discussion of findings

Table 4.3 indicates that introductory stage positively influences the firms' earnings management behaviour across all the quantiles, 0.064 in the 10th percentile, 0.078 in the 20th percentile, 0.085 in the 30th percentile, and so on. This is however not significant. Interestingly, the coefficient increases as

the percentile change increases suggesting a heterogenous influence of INTRO on ENMGT across different quantiles. Going by the features of start-ups (firms in the introductory stage), the life cycle perspective posits such firms may not engage in any significant earnings management activities and this expectation is hinged on two reasons. First, on the demand-side investors to some extents are not bent on short-term earnings as much as the long-term wealth prospects of their investments (Faff, Kwok, Podolski & Wong, 2018). As such, managers are not under any pressure of engaging in earnings management to report profits. Consequently, for firms in the introductory stage, the pressure to have an earnings benchmark and hence the obsession with ensuring profitable positions for the firm may not really be strong at that stage (Tofigh, 2016).

The study indicates that growth positively and significantly influences management behaviour across different quantiles. Specifically, at the 10th percentile, a percent increase in growth coefficient will increase management behaviour by 0.05 percentage change but the percentage change increases along the upper quantile as the influence of a percentage change in growth increases from 0.05 in 10th percentile to 0.08 and 0.12 in 50th and 90th quantile respectively. The result implies the presence of significant earnings management activities at this stage. Hence it appears that manipulation to meet earnings benchmarks is more probable for those firms in the growth phases as managers of firms in this stage also have to deal with pressures to meet earnings targets (Burgstahler & Dichev, 1997). The finding is in tandem with Cohen and Zarowin's (2010) finding which showed that firms in the growth stage engage in real-activity based earnings management to just meet the earnings benchmark of avoiding losses. Also, the finding is also supported by that of Hribar and Yehuda (2015) which found that the extent to which free cash flows and total accruals convey unique signals is largest during the growth stage. Normally, the corporate size of firms at this stage is larger and it experiences greater boost in its sales and incomes than those enterprises in birth stage. Firms in the growth stage tend to have similar cash flow patterns to introduction firms except for cash inflows from operating activities (Dickinson 2011) and such firms tend to experience increase in working capital accruals related to sales growth.

The coefficients of MATURE are negative and significant across different quantiles implying that earnings management behaviour responds negatively to percentile change in maturity stage of business life cycle. The size-based influence increases inversely along the upper quantile (-0.141 in the 50th percentile, -0.149 in the 60th percentile, -0.156 in the 70th percentile, and so on). Because profits add more to value when the firm's present operational activities are effective, earnings during the maturity stage are more suited for the company (Burgstahler & Dichev, 1997). Furthermore, in this stage, companies have a sustainable position in the market. The investments from potential projects are fewer, instead of investment, managers focus more on efficient operating. So earnings management practices are not attractive to managers because they have fewer future profits growth cycles to compensate for it (Durana et al., 2021; Hussain et al., 2020). Moreover, abusing earnings manipulations would lead to a harmful effect on the long-term financial performance because the fact is that managers cannot change the actual financial situation of the company. So, the negative relationship between earnings management and the maturity stage is found.

The study indicates that decline life cycle stage positively affects earnings management behavior of manufacturing companies in Nigeria across all the quantiles, 0.042 in the 10th percentile, 0.067 in the 20th percentile, 0.080 in the 30th percentile, and so on. This is, however, not significant. In the decline stage, the number of producers begins to decline (Gort & Klepper 1982). Moreover, facing declining profitability, firms either make new investment to rejuvenate the business or begin downsizing the company. The opportunity to growth, if there is any, is certainly so limited in this stage meanwhile financing cost is so greater than external resources that the return on investment or the return on adjusted investment is mostly smaller than the financing cost (Dehdar, 2007). At this stage, the entity income is at the lowest level or even negative and the return on investment is so small owing to omitted investment opportunities besides overall drop in the market and operating loss. The entities in the stage

of decline have to tolerate more pressure compared to the entities at the other stages of the corporate lifecycle as the result of changes in business environment and new innovations (Dehdar, 2007).
Looking at the control variables, only LEV is significant at 5%.

Conclusion and recommendations

Conclusion

The findings of this study revealed that; (i) Introductory life cycle stage does not significantly affect income smoothing behaviour of manufacturing firms in Nigeria., (ii) Growth life cycle stage significantly affects income smoothing behaviour of manufacturing firms in Nigeria., (iii) Mature life cycle stage negatively and significantly affects income smoothing behaviour of quoted firms in Nigeria and (iv) Decline life cycle stage does not significantly affect income smoothing behaviour of quoted firms in Nigeria.

Recommendations

i) The study recommended that investors and other stakeholders should pay close attention to the activities of company directors and put effective governance measures in place to forestall income smoothing practices in companies at the introductory life cycle stage particularly manufacturing companies.
ii) Also, there is need for regulatory authorities such as the Securities and Exchange Commission (SEC) and the Financial Reporting Council of Nigeria (FRCN) to pay close attention to companies in the growth life cycle stage given that the findings of the study suggest that the tendency for earnings management is strongest at this stage.
iii) Much as the study suggests that maturity life cycle stage has negative effect on earnings management behaviour of manufacturing companies in Nigeria, researchers, various corporate players and regulatory authorities should consider the possibility of other triggering factors or variables in this regard.
iv) In order to address the challenge of managerial opportunism and income smoothing, there should be effective corporate monitoring of manufacturing companies' financial reporting processes at the decline life cycle stage.

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