

Working Capital Management Impact on Economic Value Addition of the Poultry Industry in Nigeria.

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Abstract: The poultry industry as a key player under the category of Small and Medium-Sized Enterprises (SMEs) in the Agricultural sector makes critical use of the component of working capital and their contribution to the economy of the country is a direct variable of the value addition generated. The efficiency and judicious utilisation of the key components of the working capital components combined with the peculiarity and uncertainties associated with the Nigerian business environment can make or mar the success of such SMEs operating in the poultry industry and this is a focus of this study. The study employed survey design with cluster sampling approach. The study population is made up of Poultry farmers in 162 farms as registered with the Poultry Association of Nigeria-Ogun State Chapter with the total of 200 farm managers, this number exclude farm attendants and other non-managerial staff as they are task staff. The Cochran formula was used to obtain a sample size of 150. The owners/managers and other participants in these farms were selected through a multi-stage sampling technique which involves the stratified, proportionate, and simple random sampling method. The instrument validity was done through scrutiny and evaluation by the research supervisors and experts in the study area, and reliability was determined via Cronbach's alpha coefficient computed from pilot study responses. By the use of instrument codes, responses were processed into quantitative data for descriptive and empirical analysis. The analysis revealed that all proxies of working capital management practices such as cash management, accounts receivable management, accounts payable management and inventory management have a significant positive effect on economic value addition of the poultry industry (Adjusted R²= 0.057, F-statistics = 2.485.: p= 0.035<0.05). Thus, the study concluded that working capital management proxies, of cash management, accounts receivable management, accounts payable management and inventory management, has a significant positive effect on the economic value added of poultry industry in Ogun State, Nigeria.

Keywords: accounts payable management, accounts receivable management, cash management, economic value added(EVA), inventory management and Working Capital Management.

1.1 Introduction

For SMEs operating in a global dynamic competitive market to achieve growth, development and profitability, working capital management are often a condition for survival (Namusonge, Muturi & Olawoye, 2016). Poultry farms as a sub-set of the Livestock industry are farms that raise chickens (layers, broilers, cockerels and noilers), ducks, turkeys, and other birds for meat and egg production. In the past, poultry farming involved raising chickens mainly in the agrarian farms or in the back yard for daily egg production and family consumption. However, poultry farming today is a huge business that is split into several operations including hatcheries, poultry services and veterinary services, other inputs suppliers, pullet farms for meat and egg production (Adegbe & Alawode 2020 ; Fadeyi 2018; NPS 2018).

Chickens originated from Jungle Fowl in South Eastern Asia around 3200 BC (Olorunwa, 2015). Chickens were domesticated and spread to all the continents including China, India, Africa, Pacific Island, and Europe. Table eggs provide rich proteins and vitamins, especially the good fat-soluble vitamins (A, D, E, and K). As a fast-paced cycled operations, poultry farms can fulfil constantly the basic demand for meat and eggs, and can be grown into meeting an ever-growing need of the universe. Chickens are fast growing animal which in the past will take about 4 months to produce a two- kilogram chicken but today a four-kilogram broiler can be produced in 42 days (Olorunwa, 2015). And this positive development of 42 days, a better understanding of livestock husbandry practices aided by technological innovations have made poultry farms to be profitable ventures.

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In Nigeria, with SMEs constitute 97.2% of the companies in Nigeria and the poultry industry is not an exception (Ministry of Trade and Investment, 2011). However, the SMEs performances have fallen short of expectations in Nigeria (Eniola, Entebang 2014). The country is still characterized with alarming unemployment rate of 19.7% in 2010 and 43.67% in 2016 (Aminu & Shariff, 2015), as well as, high level of poverty for more than half of the population still live below the poverty line (Gbandi & Amissah, 2014). This shows that SMEs are not effective in this part Nigeria. Quite a good number of SMEs go into extinction shortly after their establishment and few that survive hardly make to the end of second and at most third-generational farms.

Farms profitability could be damaged because of inefficient working capital management. The Poultry farms have often failed due to the lack of knowledge of efficient working capital management (Kehinde, 2011). Additionally, the environmental uncertainties as applicable to businesses makes the predominantly SME farms to rely excessively on equity and maintain high liquidity and these financial characteristics affect profitability and consequently economic value added. Working capital management in SMEs is noticed by these researchers (Afrifa & Padachi(2015) ; Baños-Caballero, García-Teruel, & Solano(2010); Kehinde(2011).; Wali Ullah, Zahid, Khan, & Islam (2018)). However, in many previous studies about working capital management there are still some limitations and more so little or no research work has been carried on working capital management with regard to economic value added or capital maintenance of the poultry industry especially in a developing country like Nigeria. Performance and value addition is one of the most concerned goal of enterprise owners, therefore studying about relations between working capital management and Poultry industry value addition will have more belief in the effectiveness of working capital management and to be more helpful in understanding the working capital management of not only the poultry industry but other related and associated businesses in Ogun State, Nigeria.

1.2 Statement of the Problem

In Nigeria, defining the research problem of the SMEs and specifically the poultry industry may begin with a consideration of the typical characteristics of management staff and structure. Most SMEs do not have any organizational structure and this can consequently be narrowed down to SMEs not having a structured approach to dealing with suppliers (payables and inventory) and customers (receivables) set ups. And most owner-managers and farm managers have no formal training in managing these specific components of the working capital and thus may experience mix-up in definitions of concepts and realities.

The SMEs in Nigeria have not been surviving as most SMEs collapse with the economic meltdown of between 2005 and 2009. The Poultry industry also have its own share of the downturn as the competition for poultry inputs climaxed since 2016 when the Federal Government of Nigeria stopped financing the importation of grains which is about 50% single cost in poultry production and thus survival becomes a function of efficiency measurement where the Break-Even analysis became relevant more than ever before. (Oduntan, 2017)

Lack of knowledge of financial management, specifically working capital management, combined with the uncertainties of the business environment often lead SMEs to serious crisis regarding value addition and thus ability or inability to meet creditors obligations. Regardless of whether it is owner-manager or hired-manager, for as long as the key inputs of working capital are wrongly placed, ability to add value and meet the requirements of equityholders and creditors of the company will be adversely affected. Consequently, SME profitability could be damaged because of inefficient combination of working capital components.

Available empirical studies in Nigeria on management issues associated with poultry health checks(drugs management and vaccination) and performance are mostly descriptive analysis on assessment of established prevalent diseases and mortality in chicken layers, noilers and broilers; evaluation of biosecurity status of poultry farms; assessment of biosecurity measures and practices.. Also, literature is vast with the economic analysis of poultry production in Nigeria (Kalla ,Barrier, Haruna, Abubakar,

Hamidu, & Murtala(2007), Akintunde, Adeoti, Okoruwa, Omonona,& Abu(2015); Obi, Olubukola & Maina, 2008; Fasina, Ali, Yilma, Thieme & Anker, 2012; Ajetomobi & Adepoju, 2010). However, none of these studies has considered the assessment of working capital management and its effect on economic value added of the poultry farms in Nigeria. Based on this identified gap, this study will examine the effect of working capital management on performance of selected Poultry farms in Ogun State, Nigeria. and then, to analyse measures for improving SME profitability in Nigeria by using efficient financial management tools and utilization of such tools.

1.3 Objective of the Study

The main objective of this study is to evaluate the effect of working capital management on economic value added of SMEs in the Poultry industry of Ogun State.

1.4 Research Questions

The question that formed the direction of the conduct of enquiry in this paper is “In what way does Working capital management affect the Economic Value-Added position of selected Poultry industry in Ogun State, Nigeria? “

1.5 Hypotheses

The hypothesis tested in this study is :

H₀: There is no significant effect Working capital management on the Economic Value-Added(EVA) position of SMEs in the Poultry industry of Ogun State, Nigeria.

1.6 Justification for the Study

In terms of working capital management, most previous researchers have focused on examining, investigating and describing the behaviour of SMEs in practicing financial management. The specific areas of working capital management including financial reporting and analysis, working capital management, fixed asset management, annual budgeting process, accounting information system and capital structure management have long attracted the attention of researchers (Banik & Bhaumik, 2006). Their findings are mainly related to exploring and describing the behaviour of SMEs towards working capital management. Although they provided such descriptive statistical data and empirical evidence on SME working capital management in manufacturing industry but failed to consider SMEs farming industry, it appears that there are still gaps in the literature, which is the focus of this paper.

Firstly, most empirical evidence comes from the developed economies such as the United States of America (USA), the United Kingdom (UK), Canada and Australia (King & McGrath, 2002). And the developed economies can be further latched onto for expanding the frontier of studies relating to working capital management and SMEs performance in farming poultry industry in Nigeria. Secondly, most previous researchers focus on investigating and describing working capital management whereas there has been little research examining the impact of working capital management on SMEs performance in Nigeria (Alabi 2014).

These are major gaps and it is difficult to convince business financial management practitioners of the need for changes in practices until empirical evidence of the effects of working capital management on the profitability of SME is provided and the

relationship between the two variables are discovered. Based on previous research findings and recognition of these gaps, a study of the impact of working capital management on SMEs performance of poultry farms in Ogun State, Nigeria is justified and a model of the impacts of working capital management and its effect on SMEs performance should be developed and tested by using the empirical data from Nigeria. However, studies on the effect of working capital management on Poultry industry in Ogun State are scanty considering individual constructs of working capital management majorly like annual budget process, financial reporting and analysis, capital structure management, working capital management and accounting information system. Based on this identified gap, this study focused on the effect of working capital management on performance of selected Poultry farms in Ogun State, Nigeria.

2.0. REVIEW OF LITERATURE

2.1 Poultry Industry as a Small and Medium Scale Enterprises (SMEs)

A small and medium enterprise (SME) was introduced as far back as the late 1940s with the primary aim of improving trade and industrialization in the developed nations. (OECD, 2004). The definitions of SME are usually associated with each country definition based on the role of SME in the economy, policies and programmes designed by relevant development agencies and institutions empowered to develop SME. The concept of delimitation of small or medium scaled business varies across continents and even countries within the same continent. also varies overtime from agencies or developing institutions to another, depending on their policy focus.

Table 2.1. Definition of Small, Medium and Large-Scale Companies

Category	UK (1975 Companies Act)		European Union (EU) 1995	Nigeria (2003) National Council of Industry	
	Turnover	WorkForce	WorkForce	WorkForce	Total Cost Including Working Capital But Excluding Land
	<i>million£</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>m/Naira</i>
Small Scale	<1.4	<50	10 - 49	11 - 35	1 - 40
Medium Scale	1.4 - 5.7	50 - 250	50 - 250	36 - 100	40 - 199
Large Scale	>5.7	>250	>250	≥ 101	≥ 200

Source: Researcher’s Field Survey (2019). National Council of Industry (2003). CBN Guideline on Small and Medium Enterprise Investment Scheme (SMEEIS, 2005). IFC(2006)

In most economies, smaller enterprises are much greater in number. In Nigeria, the Poultry Industry is almost 100% SMEs. In many sectors, SMEs are also responsible for driving innovation and competition. Globally SMEs account for 99% of business numbers and 40% to 50% of GDP.

The development of viable SMEs in Nigeria has over the years been challenged by a number of harsh economic conditions which characterise the Nigerian business environment. Some of these challenges have been outlined to include erratic informal sources of finance still remain the major source of funding for SMEs in Nigeria including personal saving and borrowing from friends, extended families and various credit bodies like the cooperative societies (Alawode & Adegbe, 2020). Next is the fact of huge dependence on owners entrepreneurial skills. Thirdly, there is the challenge of inadequate (or outright lack of) infrastructural and institutional support, this includes electricity, portable water, feeder roads and security networks while the judiciary is still weak at protecting SME growth and development in Nigeria. And incessant political conflicts, ethno-religious conflicts, as well as poor governance and accountability in public service, have all functioned to make the Nigerian business environment very shaky and unreliable. (Etuk, Etuk & Baghebo, 2014; Falope & Ajilore, 2009).

2.1.6. Working Capital Management

Raheman and Nasr (2007) defined working capital management as one that is concerned with the problems emanating from attempts to manage the current asset, current liabilities and the interrelationship that exists between them. Whereas, Soyemi and Olawale (2014) noted that working capital management is the administration of the whole aspects of both current assets and current liabilities, which makes working capital the life blood of a company. Working capital management ensures that a company has sufficient cash flow in addition to the operating profit induced cashflow in order to meet its short-term debt obligations after settling operating expenses. Implementing an effective working capital management system is an excellent way for many companies to improve their earnings and increase their short-run survival tendencies. All the working capital management components have specific measurement indicators and these help the management to identify areas of focus, such as inventory management, cash management, accounts receivable and payables management.

Working capital management in view of Raheman and Nasr (2007) is based on the purpose of holding working capital as it ensures the effective and efficient utilization of the business investment in fixed assets. Sharma and Kumar (2011), viewed working capital management from efficiency perspective and can be measured and achieved through the cash conversion efficiency, days operating cycle and days working capital. Working capital management is also the management of investment in current assets and the financing of the current assets, and involves setting working capital management policy and carrying out that policy in a business's daily operations, to achieve its goals and objectives, such as shareholder wealth maximization compared to alternative investment return, competitive advantage and growth. (Ewubare & Ozar, 2018)

Working capital management is very crucial in this hydra-headed period of global financial crisis and this is because liquidity crisis is the order of the day particularly for SMEs necessitating that effective and efficient management of any available cash will be needed to ensure that company breaks even and survives this distressed time since credit is scarce. Uremade, Egbide. & Enyi (2012).

Working capital management involves, the process of managing the activities and processes related to working capital (Saad & Edi, 2010) and the aim is to ensure that there are checks and balances to ensure sufficiency in cash inflow to sustain the company's operations. This must be an on-going process that must be evaluated using the current level of assets and liabilities. Working capital management may involve implementing short-term decisions that may or may not carry over from one financial period to the next one and can be defined as the administration of current assets in the name of cash and cashlike items like marketable securities, receivables including staff advances, payables including deposit for sales and inventories. Adina (2010) demonstrated that good working capital management is when there is an acceptable relationship between the different components of a firm's working capital so as to make an efficient mix, which will guarantee capital adequacy. Therefore, working

capital management should make sure that the desirable quantities of each component of the working capital are available for management (Soyemi & Olawale,2014).

Working capital management consists of managing working capital components; including cash, receivable, and payable and inventory management in SMEs and working capital policy used to maintain level of investment in current assets for attaining their targeted Raheman & Nasr (2007). In order to understand the importance of working capital one has to understand the details of working capital cycle and cash conversion cycle which is described as the core for working capital management. Adina (2010) said that working capital cycle includes all the major dimensions of business operations. It is quite clear that a bad management of a single component of the accounts in this cycle might cause a big trouble for the non-living entity which might leads to its death, like mis-managing deferred tax components leading to huge cash outflow. Therefore, the management of working capital and balance between components of working capital particularly with key indicators like DPO, DSO, Inventory turnover is extremely important for the smooth running of businesses. Similarly, the basic aim of financial management is to maximize the wealth of the shareholders and in order to achieve this; it is necessary to generate sufficient sales and profit.

However, as most organisations cannot but get involved in credit sales, sales do not convert in to cash instantly. The time between purchase of inputs which are largely inventory items (raw material or merchandise) for the production and their conversion into cash is known as operating cycle or working capital cycle. Therefore, working capital management deals with the act of planning, acquisition, organizing and controlling the components of working capital (current asset and liability) like cash, bank balance, inventory, receivables (trade and others), payables(trade and others), overdraft and short-term loans (Shubita, 2013).

2.1.6.1 Cash Management

This is simply the treasury management of the bank balances and the cash at hand including imprest management. The main factor to be managed here is the banking relationship to cover for overdraft and other short-term facilities in periods of cash deficit and to invest the surplus cash inflow at an optimum and non-disruptive manner.

2.1.6.2 Accounts Receivable Management

Accounts receivable are incomes and sales receipts due but not yet paid by the customers and other receiver of dispended/sold services. Accounts receivable, which can be resulting directly from trade/production or from other activities are listed as assets on a company's balance sheet, but they are really not actually assets until they are collected as there exists risk elements of non-collection. A common metric that is used to assess a company's handling of accounts receivable is days sales outstanding, which interprets to be the average number of days a company takes to collect sales proceeds (Raheman & Nasr, 2007).

2.1.6.3 Accounts Payable Management

Accounts payable, the money that a company is obligated to pay out over the short term of one accounting year. We also have Trade payables resulting directly from procurement of direct factors of production/services and Other payables resulting from other obligations like tax, interest expense not settled. Companies seek to strike a balance between maintaining maximum cash flow by delaying/optimising payments as long as is reasonably possible without soiling the integrity of the business which can impact on the credit ratings. Usually measured by the Days Payable Outstanding- the number of days of financing provided by the short-term creditors. Ideally, a company's average time to collect receivables should be significantly shorter than its average time to settle payables (Obara & Eyo, 2002).

2.1.6.4 Inventory Management

Inventory is a company's primary asset acquired with the intention of further processing/packaging and converts into sales revenues. The inventory turnover rate which measures the rate at which a company sells and replenishes its inventory is an important measure of its success and is an indication of the strength of sales and as a measure of how efficient the company is in its purchasing and manufacturing process. In the poultry industry, there are three broad inventory items as inputs apart from the birds itself, these are energy inputs like maize, wheat, sorghum and oat. Protein inputs like soya bean meal (SBM), fishmeal, groundnut cake(GNC) and soya/vegetable oil. The third category are the macro-nutrients and other additives. The last two categories are largely imported and if not properly managed and gets too low puts the company in danger of losing out on production/sales, but excessively high inventory levels represent wasteful, inefficient use of working capital. There are also many sub-categorisations of inventory depending on the industry, for example in the poultry industry, we can have Finished Feed, Feed materials, Feed Additives and other constituents like drugs (Afrifa & Padachi (2015); Kier ,2015; Lihandah , Bogonko & Ong'iyoy (2018)).

Table 2.2. Inventory and Cash Levels and Impacts

Inventory	
High Levels	Low Levels
Benefit: <ul style="list-style-type: none"> ■ Happy customers ■ Few production delays (always have needed parts on hand) Cost: <ul style="list-style-type: none"> ■ Expensive ■ High storage costs ■ Risk of obsolescence 	Cost: <ul style="list-style-type: none"> ■ Shortages ■ Dissatisfied customers Benefit: <ul style="list-style-type: none"> ■ Low storage costs ■ Less risk of obsolescence
Cash	
High Levels	Low Levels
Benefit: <ul style="list-style-type: none"> ■ Reduces risk Cost: <ul style="list-style-type: none"> ■ Increases financing costs 	Benefit: <ul style="list-style-type: none"> ■ Reduces financing costs Cost: <ul style="list-style-type: none"> ■ Increases risk

Accounts Receivable	
High Levels (favorable credit terms)	Low Levels (unfavorable terms)
Benefit: <ul style="list-style-type: none"> ■ Happy customers ■ High sales Cost: <ul style="list-style-type: none"> ■ Expensive ■ High collection costs ■ Increases financing costs 	Cost: <ul style="list-style-type: none"> ■ Dissatisfied customers ■ Lower Sales Benefit: <ul style="list-style-type: none"> ■ Less expensive
Payables and Accruals	
High Levels	Low Levels
Benefit: <ul style="list-style-type: none"> ■ Reduces need for external finance—using a spontaneous financing source Cost: <ul style="list-style-type: none"> ■ Unhappy suppliers 	Benefit: <ul style="list-style-type: none"> ■ Happy suppliers/employees Cost: <ul style="list-style-type: none"> ■ Not using a spontaneous financing source

Source: Knight (2016) and Kier (2015)

2.2 Theoretical Review

This section of the review provides the basic theoretical assumptions for the study. It will focus on relevant theories that can be applied to the study variables and concepts in order to come up with a logical linkage between the variables. The theories reviewed are; The Theory of Residual Equity, The Contingency Theory, Shareholder Theory, Liquidity Trade off Theory and Pecking Order Theory.

2.2.3. The Contingency Theory

The contingency theory of leadership was proposed by the Austrian psychologist Fred Edward Fiedler in his 1964 article, "A Contingency Model of Leadership Effectiveness" (Fiedler, 1964(as cited in Omoluabi, 2016).The contingency theory emphasizes the importance of both the leader's personality and the situation in which that leader operates. The theory holds that there are various contextual factors that determine how an organization operates such as the technology and external environment. As described by Chenhall (2003), that these factors will affect the organizational structure, which will then influence the design of the financial system.

The second feature of firms environmental uncertainty as identified by Pike (1986) argued that the more mutable and random the context of operation is, the less suitable will be the highly bureaucratic, mechanistic capital budgeting arrangements. According to Pike(1986), businesses working in highly indeterminate environments are assumed to benefit from complex investment approaches, mainly in appraising risk. Finally, Pike was also concerned with the behaviour characteristics of firms and recognises three characteristics, namely degree of professionalism, the history of the organisation and the management style. Contingency theories that postulates that effective leadership will depend not only on the leadership style but such style will be influenced by how to be in control over situations. Good leader-member relations, task with clear goals and procedures, and the ability for the

leader to serve out rewards and punishments are the three key ingredients of contingency theory and lacking these three in the right mix and context is surely a recipe for leadership failure.

2.2.4 Cash Management Theory

Cash Management theory was determined by Morton Miller and Daniel Orr in 2009 in attempting to create a better way to deal with finance management over Baumol's model.

The Miller & Orr model of cash management is developed for businesses with uncertain cash inflows and outflows. It is a model that allows lower and upper limits of cash balances to be set and the return point determined (target cash balance). The model figures out how to achieve a reasonable level of authenticity while not being excessively detailed. It states that the aggregate cash flows are constantly distributed with very low levels of the mean and standard deviation. This is a probabilistic or stochastic model which accepts instability in financial management by accepting that the day by day cash flows are unverifiable and, in this manner, take after a trendless random walk. This theory thus sets bounds inside which money ought to be managed. These cut-off points are: A furthest breaking point, which is the most extreme value of money to be held, Lower restrict, which is the base value of money to be held (thought to be zero), and Return point, which is the target amount of money considered optimal.

According to Gadome and Thaeer (2008), an endeavour ought to keep up satisfactory liquidity for its smooth working. In the event that materials are heedlessly bought, it will bring about dormant moderate moving and outright stock. And at any rate, deficient stock value will result to stock outs and negative interference in operations (Gadome & Thaeer, 2008). Money should likewise be kept up at a perfect level. It might likewise result to expanded cost because of misusing, waste and theft. Namusonge (2008) notes that excessively or deficient level of money equalizations mean money is not appropriately used. Insufficient level of finance balance for instance can prompt stoppage in business operations. An organization might be beneficial however with no liquid finance which can result to operations intrusions. The organization can likewise be constrained into ending up by its creditors.

2.3 Empirical Review

2.3.3. Working capital management and Economic Value Added

This is a registered trademark of Stern Stewart and Company and is an estimate of a firm's economic profit being the value created in excess of the required return of the company's investors (i.e. shareholders and debt holders)

EVA is based upon an age-long concept and that is the concept of profit left to service equity, and is completely apart from accounting profit at all. A company is at a loss if its business returns in terms of profit is less than its cost of capital. And this is mindless of the business paying taxes as if it had a genuine profit. The enterprise still returns less to the economy than it devours in resources... Until then it does not create wealth; it destroys it.(Sharma & Kurma 2010)

Proponents of EVA claim that EVA is highly correlated with stock returns, return on investment. EVA derives stock prices (Stewart, 1995; Sharma & Kurmar, 2010) is better than other accounting-based performance indicators particularly accounting profit.. Various Studies are also conducted on Incremental information content tests of EVA and provide evidences that it adds significant explanatory power to Earnings Per Share in explaining stock returns. Worthington and West (2001) provided

Australian evidences regarding the information content of EVA and concluded that stock returns to be more closely associated with EVA than residual income, earnings and net cash flow.

EVA as a measure of residual income is normally utilized for assessing the performance of organisations as a divisions, multi-divisions or departmentalized operations, in which a finance charge (cost of capital) is deducted from the accounting profits of the entity. The finance charge is calculated as the net assets of the company, factored with applicable interest rate which is normally the company's weighted average cost of capital or the prevailing ruling interest rate of commercial credit (usually banking interest rate). (Daraban 2017; Butt, Huniar & Rehman 2010; Geysler & Liebenberg, 2003)

EVA as a residual income can be mathematically expressed as

$$EVA = NOPAT - (k * \text{capital})$$

Where:

NOPAT = Net Operating Profits After Tax.

$(r * \text{capital})$ is the finance charge,

where r = the firms weighted average cost of capital

capital = equity plus long-term debt of the company at the start of the period including shareholders loan whether short-term or long-term.

EVA is useful in explaining the market value of a company as the profit rate can easily be compared with the prevailing market cost of capital and it allows dissecting a company's market value into known and unknown (expected) components. The present value of future stream of EVAs actually has two components, present value of current EVA (known component) and present value of expected EVA improvements over the current level (unknown component). The first component coupled with current book value of equity is called Current Operational Value (COV) and the second component is called Future Growth Value (FGV). As market value of a firm is essentially futuristic and it depends to a large extent on Future Growth Value (FGV) of a firm and FGV depends on EVA improvement. If a company maintains EVA (without any improvement), its NOPAT will provide a cost of capital return on current operational value (COV) and no return on FGV. Hence, EVA improvement is a precondition for growth in market value

EVA is different from other traditional performance measuring tools because most measures mostly depend strictly on accounting information but EVA incorporates market cost of capital. According to Sabol, Andrija; Sverer, Filip (2017), the problem with these kinds of tools is that accounting earnings fail to measure changes in the economic value of the firm, and some of the reasons include

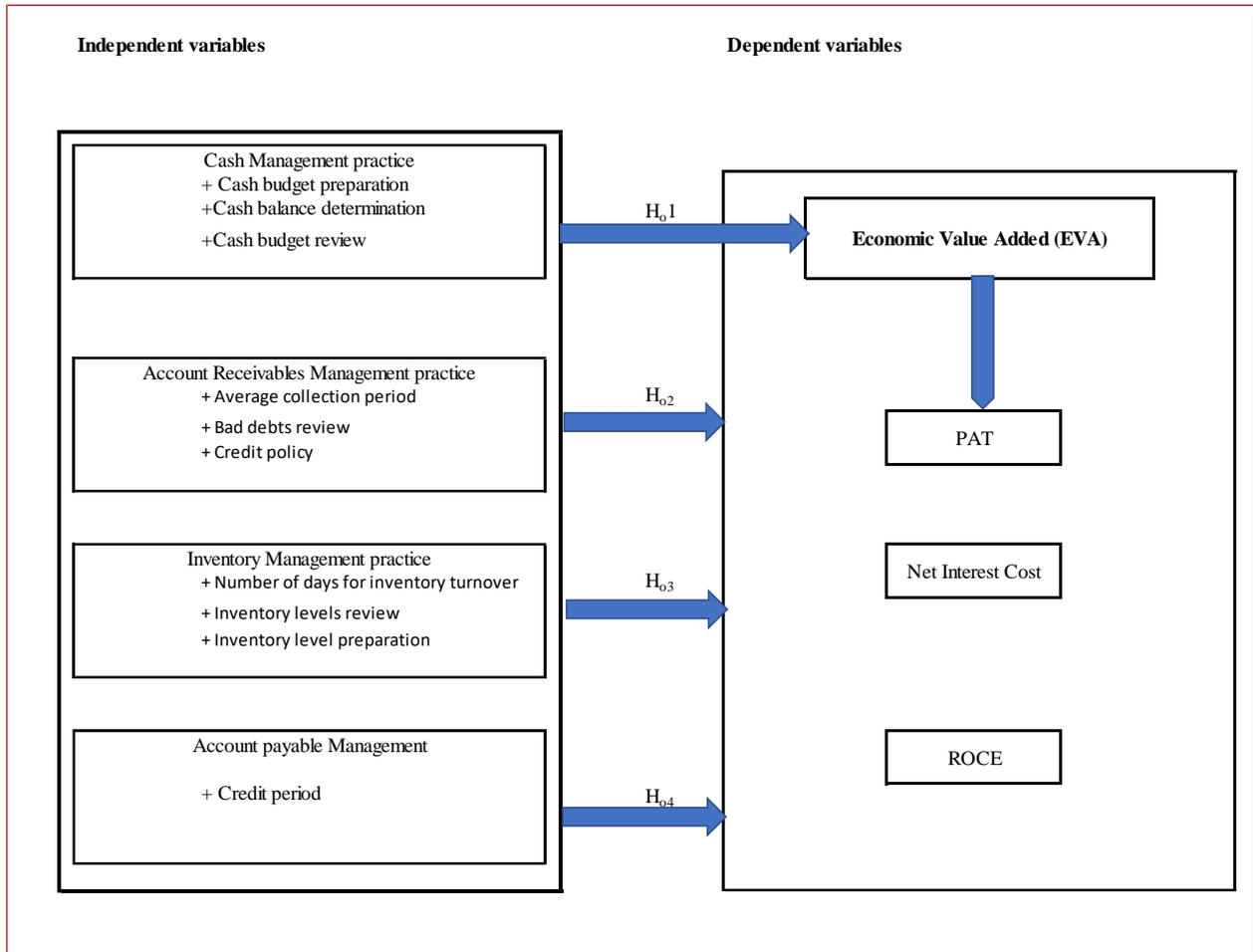
- (1) Alternative accounting methods may be employed: different methods for depreciation, inventory valuation, goodwill amortization, and so on
- (2) Both business risk (as determined by the nature of the firm's operations), and financial risk (largely determined by the relative proportions of debt and equity used to finance assets) are excluded.
- (3) Accrual based accounting numbers differ from cash flows from operations, particularly in working capital components.

(4) Dividend policy is not considered

(5) The time value of money is ignored.

2.6 Researcher’s Conceptual Model

This study will be guided by the following conceptual framework as adopted from financial management for small business (McMahon, 1995).



The independent and dependent variable for this research is financial management (X) and Poultry Farms performance (Y) respectively. The independent variable working capital management (X) is measured using the following dimensions: cash management, accounts receivable management, accounts payable management and inventory management while the dependent variable is measured by the key variable of Economic Value Added (EVA).

3. METHODOLOGY

150 structured questionnaires were administered and 122 responses in a combination of direct interview, online questionnaires and paper copies were filled and returned from across the six zones in Ogun State as mapped out by the Poultry Association of Nigeria, Ogun State chapter. This represents a response rate of 81.3%. According to Marske(2019) , a response rate of 60% is the minimum response rate, The “Gold Standard” by the Federal Statistic s is 85% (AAPOR 2015). Babbie (2004) also asserted that survey return rates of 50% is acceptable for analysis and publication, 60% is good and 70% is very good. Based on these views from renowned researchers, the responses rate for this study of 81.3% is considered sufficient for making inferences and drawing

conclusions. Table 2 below illustrates the rate of responses from the SMEs poultry farms as contained in the Farm Registration list as obtained from the Poultry Association of Nigeria, Ogun State chapter.(Adegbe & Alawode, 2020 ; PANOG).

Data analysis for this study was done in two stages: the descriptive and inferential analysis. The first stage (the descriptive analysis) features descriptions of the properties of the data to show the variations in responses of the study’s participants using such tools as frequencies and percentage distribution tables, bar charts, means and standard deviations. It will also provide the views and opinions of the respondents on working capital management and Poultry farms performance.

The second stage (the inferential analysis) is the analysis of the responses on the quantitative data and the relationships. This was carried out using statistical tools of multiple regression method of analysis using SPSS (Statistical Package for Social Sciences) software version 22.0 to test the effect link between the independent variables on the dependent variable.

The variables for this study operationalized thus:

$$Y = f(X)$$

Where Y = Economic Value Added (EVA, and

X = Working Capital Management (WCM)

Hypothesis

$$Y = f(x_1)$$

$$y_1 = \beta_0 + \beta_1x_1 + \varepsilon_i$$

$$EVA = \beta_0 + \beta_3WCM + \varepsilon_i$$

4. Results and Discussion of Findings

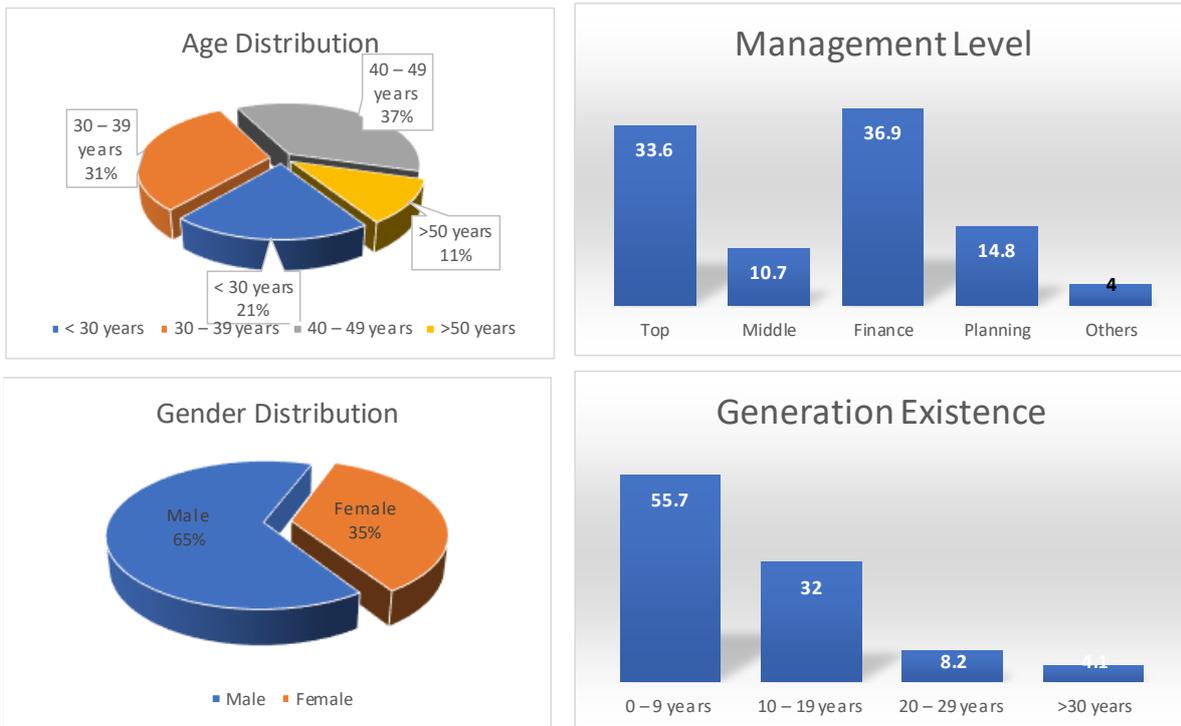
4.1. Data Analysis

Table 2. Distribution of Questionnaire/ Response Rate.

Categories	Frequency	Percentage%
Copies of questionnaire administered	150	100
Copies of questionnaire filled and returned	122	81.3
Copies questionnaire not returned	28	18.7

Source: Researcher’s Field Survey, 2019

Figure 2. Demographic Characteristics of Respondent.



Source: Field Survey, 2019

4.2. Test of Hypothesis

Research Objective : evaluate the effect of working capital management on economic value added of SMEs in poultry industry of Ogun State.

Research Question: in what way does working capital management affect the economic value added of selected poultry industry in Ogun State, Nigeria?

Research Hypothesis (H₀): there is no significant effect of working capital management on the economic value added of SMEs in the poultry industry of Ogun State, Nigeria.

Table 4.13 Regression Estimate

Variable	The Model			
	Coefficient	Standard Error	t- stat	Prob.
Constant	3.6011	.560	6.426	.000
IM	.107	.064	1.674	.096
APM	.150	.078	1.931	.055
ARM	.156	.087	1.785	.076
CM	.183	.097	1.881	.062
R ²	.097			

Adjusted R ² : Overall	0.058
F-Stat	2.485 (0.035)

Dependent Variable: EVA

***significant at 5%**

Model

$$WCM = \beta_0 + \beta_1IM + \beta_2APM + \beta_3ARM + \beta_4CM + \epsilon_i$$

$$WCM = 3.6011 + 0.107IM + 0.150APM + 0.156ARM + 0.183CM$$

The regression estimates of model 3 shows that working capital management measured by cash management, accounts receivable management, accounts payable management and inventory management positively affects performance measured by economic value added (EVA). This is indicated by the signs of the coefficient. $(\beta_0 = 3.601; \beta_1 = 0.107; \beta_2 = 0.150; \beta_3 = 0.156; \beta_4 = 0.183$ and $\beta_5 = 0.143)$. Also, from Table 4.13, inventory management has a positive insignificant effect on economic value added $(\beta = 0.107, t = 1.674, p = .096)$, accounts payable management has a positive insignificant effect on economic value added $(\beta = 0.150, t = 1.931, p = .055)$, accounts receivable management has a positive insignificant effect on economic value added $(\beta = 0.156, t = 1.785, p = .076)$, cash management has a positive insignificant effect on economic value added $(\beta = 0.183, t = 1.881, p = .062)$.

The Adjusted R² of the model showed that 5.8% of the variations in economic value added of selected poultry businesses can be attributed to working capital management proxies used in this study, while the remaining 94.2% of the variations in profitability of selected poultry farms are caused by other factors not included in this model. The overall F-Statistics is 2.485, while the P-value of the F-Statistics is 0.000 which is less than 0.05 adopted for this work. Implying that working capital management does exert a significant effect on Economic-Value-Added of SME poultry industry in Nigeria. Hence, the null hypothesis may not be accepted and the objective is achieved.

Rago (2008) concluded in its study that economic value added even though unconventional by traditional standards of financial performance, it appears to be the very useful in measuring corporate performance because it emphasizes efficiency and wise management as factors that produce wealth. Also, Haller and Staden (2014) in their study highlighted that EVA can be used to enhance future earnings predictions. They also investigated the degree of correlation between different performance measures and stock market returns. The results indicate that EVA is more correlated a measure with stock returns (alternate investment return).

5.1 Summary

The main thrust of this study was to examine the relationship between working capital management and economic value addition as a proxy of performance in selected poultry farms in Ogun State, Nigeria. To achieve this,

The methodology adopted for this study covered such areas as the research design that was used for the study, study location, sampling, data collection method, data processing and data analysis with primary data obtained through questionnaire from one hundred and fifty (150) owners and/or managers of the one hundred and ten (110) selected poultry farms in Ogun State. One hundred and twenty-two (122) respondents were taken. Purposive sampling was used and the retrieved questionnaire was coded and analysed using simple frequency distribution and simple percentage and ordinary least square regression technique. This chapter gives the summary of the study as well as the summary of the findings and their implications. Conclusions were drawn

and recommendations made. Finally, the chapter highlighted the limitations of the study, the study's contributions to knowledge and suggestions for further research.

5.2 Conclusion and Recommendations

The study examined the effect of working capital management on selected poultry industry farms in Ogun State, Nigeria. The regression estimates show the effect of working capital management on economic value added and indicates that the working capital management have a positive significant effect on economic value added as a proxy of performance of poultry industry in Ogun State, Nigeria.

SMEs should ensure enhance and regularly update their accounting information system from where the various components of working capital can be analysed as the responses, showed that majority of the respondents do have an accounting information system in place but like hardwares too, accounting softwares are being developed regularly and inclusive of other multi-dimensional farm.management softwares.

SMEs should expand the coverage of working capital management components such as used in this study with special focus on credit management, cash management and asset management in their operations in order to boost their capability in competing and growing like the big farms.

A key component that need to be closely monitored is the inventory level due to the insecurity level and corruption as an environmental factor, most of these inputs are imported with attention to be paid to expiry date and moisture level of the premixes while the aflatoxin level of maize, soya and other protein materials should always be tested for the micro-biological integrity.

Usually, farms sell on cash and carry basis but the established customers enjoy average of one week unsecured credit making it imperative for close and unconventional credit management avoiding credit roll-overs. Also, the credit terms have to such that will be lower than the trade credit available to the farms so that the net of receivables and payables will remain positive.

It is also very necessary to obtain knowledge about basic financial concepts by the owners of these SMEs in order to help manage their finances in case they do not have a financial expert in their farms. The lower level in the industry need to be particularly upgraded as this study was limited to top and middle level management of these farms. A healthy business is one that all the cadres of the business strata can understand and apply various working capital management as proxied in this study.

5.3 Contribution to Knowledge

This study has the following contributions to knowledge:

Contribution to Literature: The study's conceptual work has extended the frontiers of knowledge on the effect working capital management on performance of poultry industry farms in Ogun State, Nigeria by introducing the issue economic value addition (EVA) which is a step further down the accounting profit line.with which the growth and survival of any business is guaranteed as a thriving entity in Nigeria.

Contribution to Theory: This study contributed to knowledge; most works done on this research topic were hinged on both contingency theory and cash management theory. The localisation of these theories serve as a confirmation of their efficacy.This study contributed to existing literature by the findings that have been examined; implications of the findings, and the recommendations that have been made.

Contribution to Practice: The study investigated the effect of working capital management on economic value added which is simply performance of poultry industry in Ogun State, Nigeria. To the best of the researcher's knowledge, this study is one of the studies considering the issue of working capital management in the poultry industry and can be generalised to the small and medium scale enterprises. Since the industry and SMEs usually suffer from sharp fluctuations in components of the working capital, particularly with short-supply in the inputs, a mastery of the key performance indicators comes handy to help the industry.

Contribution to Model: This study contributed to knowledge through the model developed which shows the effect of working capital management proxies on economic value added. Most of the previous studies are focusing on profitability but the economic value-added perspective considers the cost of capital impact in the industry and make it market funding oriented.

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