

Determinants of profitability of Consumer Goods Companies listed on the Nigerian Exchange Group

BY

Ikya, Emmanuel, Agbe
Email: ikyaemmanuel4@gmail.com

Joseph Sarwuan Tarkaa University Makurdi, Department of Accounting

Maikyo msugh,

Joseph Sarwuan Tarkaa University Makurdi, Department of Accounting

Korna Johnmark

Joseph Sarwun Tarkaa University Makurdi, Department of accounting

ABSTRACT

This study examines the determinants of profitability of Consumer Goods Companies listed on the Nigerian Exchange Group. The researcher investigates three specific objectives: whether Corporate Governance Attributes, Working Capital Attributes and Financial Attributes were determinants of Profitability of Consumer Goods Companies in Nigeria. The methodology employs Correlational Research Design to analyze secondary data collected. The population consists of twenty-one (21) Consumer Goods Companies listed on the Nigerian Exchange Group. Purposive sample of Nineteen (19) Consumer Goods Companies spanning a period of five years from 2018 to 2022 was used for this study. The secondary data was sourced from annual reports encompassing Corporate Governance Attributes, Working Capital Attributes and Financial Attributes. The study utilized Structural Equation Modeling to measure variables of the research. The findings revealed that Corporate Governance Attributes and Working Capital Attributes significantly determines profitability while Financial Attributes insignificantly determines profitability of Consumer Goods Companies in Nigeria. Based on these findings, the study recommended manageable board size and audit committee meetings, keeping of adequate working capital to settle daily transactions and focusing on the Governance Attributes and Working Capital Attributes especially when Return on Asset (RoA) is considered as a measure of profitability.

1.0 INTRODUCTION

1.1 Background to the Study

The global aim of many corporate organizations is to maximise profit for their owners. Profit is an essential prerequisite for any company operating in today's increasingly competitive and globalised market. Profitability is one of the accounting measures of performance that anchors the main objective of a business organization which is wealth creation for its owners. Profit is realised when the amount of revenue gained from a business activity exceeds the expenses and the cost incurred to carry out the activity. Niresh and Velnampy (2014) explained that profitability is the amount of money or money equivalent that a firm can create with the resources at its disposal.

Scholars have disagreement over what factors determine a firm's profitability (Pratheepan, 2014). This results from the possibility that a corporate organization's main goal is to maximise profit in addition to secondary goals like growing sales, assets, and market share. According to Aparna (2015), a variety of characteristics that fall under the categories of corporate governance, working capital and financial traits, among others, may influence profit. Corporate governance attributes are those features of the business that are focused on management and deal with how the business's daily operations are coordinated. Corporate governance, according to Syed (2015), is essential to determining profit because management is in charge of organizing the company's resources. This suggests that in order to make profit, the company's management must choose the best combination of resources. Making profit depends on these managers having an effective communication chain.

Profitability could also be determined by working capital attributes which include account receivables, inventory turnover and accounts payables. The investments that companies make in short-term assets, and the resources used with maturities of under one year represent the main items of working capital. Working capital management deals with the management of current assets and current liabilities. Excessive levels of current assets can easily result in a firm realizing a substandard return on investment which may reduce profitability. At the same time, too few current assets may incur shortages and difficulties in maintaining smooth operations of a firm. Hakim (2020) observed that managers spend considerable time on day-to-day problems that involve working capital decisions.

Working capital management plays an important role of overall corporate strategy in order to create shareholder value. Working capital is regarded as the result of the time lag between the expenditure for the purchase of raw material and the collection for the sale of the finished goods. The main purpose of any company is to maximise the profit; maintaining liquidity of the company also is an important objective. The problem is that increasing profits at the cost of liquidity can bring problems to the company. Thus, strategy of company must be a balance between these two objectives of the company because the importance of profit and liquidity are the same so, one objective should not be at cost of the other. Conversely, companies that do not care about liquidity may face the problem of insolvency. For these reasons working capital management should be given proper consideration and will ultimately affect the profitability of the company.

Financial attributes can also be determinants of profitability. Some of the attributes include leverage, liquidity and firm size, to mention but a few. It is the task of the company's management to utilise right strategies from time to time taking into account these factors which might exert considerable influence on the profit of the company.

The motivation for this study to Examine the determinants of profitability was largely because some of the extant literatures reviewed have looked at determinants of profitability using the variables of interest separately as explanatory variables which determines profitability of companies not minding the corroborative effect of each variable to the dependent variable. For instance, studies by Bashar & Islam 2018; Aparna 2020; Mutuku & Kyalo 2015; Magaretha & Supertika 2016; Niresh & Velnampy 2014 have separately examined the determinants of profitability such as leverage, firm size, liquidity and board size. This study adopts a holistic approach to the determinants of profitability by identifying the key attributes or variables (Corporate Governance, Working Capital and Financial) that could determine profitability of companies. This study is considered essential as the current administration is poised to reviving the ailing consumer goods sector as heavy reliance on oil revenue is now heading the economic fortunes of the country to a crash.

Determinants of profitability are issues of concern to various scholars. Consequently, the literature on the determinants of profitability of companies has gained more momentum. Previous studies (Bashar & Islam 2018; Aparna 2020; Devi 2018; Mutuku & Kyalo 2015; Magaretha & Supertika, 2016; Hui & Kasim 2013; Niresh & Velnampy 2013) on determinants of profitability of companies

have produced inconsistent findings. These inconsistent findings have made it difficult for good management decision making in the context of emerging economies such as Nigeria. While some studies contend that variables such as liquidity, leverage, company size, and firm growth have significant relationship with company profitability, others submit that such variables do not have significant relationship with profitability. This has led to inconsistent findings in the literature. This study has examined the determinants of profitability by aggregating variables that determines profitability under corporate governance attributes (board size, audit committee composition and audit committee meetings), working capital attributes (accounts receivables, inventory turnover and account payable) and financial attributes (leverage, liquidity and company size), which have hitherto created gaps in literature on the determinants of profitability.

In view of the presence of many proxies of the attributes that may determine profitability, this study has applied the structural equation modeling technique which captures the main and subsidiary variables (financial, working capital and corporate governance attributes) not found in prior literatures on consumer goods companies listed on Nigerian Exchange Group (NGX). The result of this study will contribute to the literature by ascertaining which of the three attributes better determines profitability.

Therefore, the study examines the determinants of profitability of consumer goods companies listed on the Nigerian Exchange Group (NGX). Specifically, the study sought to: ascertain whether corporate governance attributes are determinants of profitability of Consumer Goods Companies listed on the NGX; examine whether working capital management attributes are determinants of profitability of Consumer Goods Companies listed on the NGX; and examine whether financial attributes determine the profitability of Consumer Goods Companies listed on the NGX. Three research questions were formulated, and three hypotheses were tested. The following sections are literature review, methodology, data analysis and result, conclusions and recommendations.

2.0 Literature Review

2.1 Conceptual framework

2.1.1 Profitability

Profitability is the level of profit in relation to the volume of the activities of the organization. Profitability is an index of both performance and efficiency, even though the level of profitability

may not necessarily mean the efficiency of management. Profit and profitability may be used interchangeably. Suffice to say that a difference exists between the two concepts. While profit is an absolute value which describes the difference between revenue and cost, profitability is a relative concept which measures the level of profit in relation to the volume of activities. Profit is synonymous with income, earnings and margin and returns even though in principle, difference exists among the concepts.

Profitability, which is frequently used as a measure of financial performance, is one of the main objectives for the existence of many companies. The ability of a company to generate profit consistently is a function of good performance. In addition, profit does not only serve as a means of attraction to investors, it also improves the level of solvency, and thus, strengthens consumer's confidence (Ismail 2016). The implication of this is that profitability can be explained in various ways.

Devi and Devi (2015) define profitability as the level to which an organization can successfully and efficiently make the most of its obtainable funds and assets, and alter them into outstanding profit. This forms the basis for boosting income of employees, providing better quality products for customers, and having better environment friendly production units. Also, more profits precipitate more future investments, thereby creating more employment opportunities and enhancing income of people.

Profitability is commonly measured using the following ratios: return on assets (ROA), return on equity, gross margin, operating margin, and return on capital employed. Return on Assets is a profitability ratio that provides how much profit a company can generate from its assets. Return on assets measures how efficient a company's management is in earning a profit from their economic resources or assets. For the purpose of this study, return on assets will be adopted for the measurement of profit. This is because the measurement of profit here is based on the operating efficiency of the management of the consumer goods companies. This measure of profit is more encompassing than other profitability variables and is the proxy commonly used by researchers for measuring profitability. The profit after tax indicator expresses the company's ability to generate profit as a consequence of the productive use of resources and efficient management. Therefore, this study sees profitability as return realized from utilization of asset.

2.1.2 Determinants of profitability

Determinants of profitability are widely debatable issues among scholars. This is borne out of the fact that the primary objective of the business is profit maximization in addition to some secondary objectives such as increased sales (Aparna, 2020). Profitability is determined by a number of factors such as corporate governance attributes, working capital attributes and financial attributes. These factors will be discussed seriatim below.

i. Corporate Governance Attributes

Governance has been conceptualised differently by different scholars; it is defined as the rules of the system to solve conflicts between actors and adopt decisions (U-Ungwa, 2017). Corporate governance is principally on the structure of relationship within an organisation which is directed at best practice in the overall interest of the firm and its dispersed stakeholders. Florin (2018), opines that corporate governance has many benefits and effects; it creates more open, transparent society, corruption prevention, rule of law with fairness and order and promoting ethical wealth creation.

The strategy for addressing the challenges of corporate governance has taken various forms at both the national and international levels and has culminated in initiatives such as: the OECD Code; the Cadbury Report; the Basel Committee Guidelines on Corporate Governance; the King's Report of South Africa. In a bid to improve corporate governance in Nigeria, the Securities and Exchange Commission (SEC), in pursuance of its regulatory and supervisory role over the securities of public companies in Nigeria vested in it by Section 13 of the Investment and Securities Act, 2007, inaugurated a National Committee in September, 2008 to review the 2003 Code of Corporate Governance for Public Companies.

Effective corporate governance ensures that long-term strategic objectives and plans are established, and that the proper management structure are in place to achieve set objectives; while at the same time making sure that the structure functions to maintain the organization's integrity, reputation, and accountability to its relevant constituencies.

Corporate governance is also the proper functioning of institutions and their acceptance by the general public (Saliha & Abdessatar 2021). Corporate governance is defined as the management of the resources of the organization to achieve its set goals (Asgari, Pour, Zedeh & Pahalavan, 2015). In line with this definition, corporate governance may be achieved through the actions of

the size of board of directors of the company, the audit committee and the audit committee composition. These attributes may affect the profitability of the firm in diverse forms and may determine the extent of the profitability of an organisation.

(a) Board size

Board size is one of the key corporate governance mechanisms that has been discussed by many researchers. Johl, Kaur and Cooper (2015) emphasise that board size seems to differ from one country to another. In Nigeria, the Code of Corporate Governance (NCCG) 2018 stipulates that the Board should be of a sufficient size relative to the scale and complexity of the company's operations and be composed in such a way as to ensure diversity of experience without compromising independence, compatibility, integrity and availability of members.

However, the right size for a board should be driven by the effectiveness and efficiency of the board in its operations as a team. There have been conflicting arguments in the literature with respect to the relationship between board size and firm profitability. Companies with small boards tend to show more favorable values of financial discipline and provide stronger performance incentives through compensation and the threat of dismissal (Lin, 2011). Contrary to this view, Tanna, Pasiouras and Nnadi, (2017) explained empirically that larger boards enhance better corporate financial performance. Board size is seen by this study as the number of directors that constitute the board. This is in line with the submission of Doga and Yildiz (2013).

(b) Audit committee meetings

An audit committee is an arm of the board of directors that oversees the integrity of financial reporting and disclosure. Its assists the board of directors in terms of oversight responsibilities in relation to an entity's financial reporting, internal control system, risk management system as well as internal and external audit functions. A key attribute of the audit committee is audit committee meeting. The number of audit committee meetings reflects its effectiveness. This explains why frequency of audit committee is used by some studies such as Swarnapali (2019) and Johl, Kaur and Cooper (2015) as a proxy for audit committee activity. The audit committee that meets frequently has tendency to be better informed about auditing and financial reporting concerns.

(c) Audit committee composition

According to Vatavu (2014) the audit committee is a standing committee established to enhance corporate accountability, by working with internal auditors and management to improve and strengthen the accounting and financial reporting practices of an organization and ensure proper conduct of corporate affairs, in keeping generally accepted ethical and legal standards. Audit committees help in the reduction of errors and promote regulatory compliance oversight of risk management and internal control systems and increased voluntary disclosures.

In Nigeria, the Companies and Allied Matters Act (CAMA 2004) provides a semblance of a code of corporate governance for registered companies. CAMA stipulates that the audit committee comprise of six members drawn from three board members and three from the firm's shareholders. However, for quoted companies, the Security and Exchange Commission (SEC) further enhances the constituents of the audit committee by specifying the addition of non-executive board members. This structure is aimed to ensure that management and shareholders are adequately represented in audit committee considering the critical nature of their role, where the shareholders are expected to protect the interest of the owners by ensuring that released profitability is fair representation of the state of the organization. However, audit committee members that meet less frequently are prone to offer less supervision and monitoring roles. Consequently, firm performance increases with ratio of audit committee members.

ii. Working Capital Management Attributes

Working capital is the amount of funds that a business has made available to meet the day-to-day cash requirements of its operations (Michalski, Grzegorz. 2014). Mahmood et al. (2019) viewed working capital as items (such as stock, creditors and cash) that are required for the day-to-day production of goods to be sold by a company. It is the difference between current assets and current liabilities. Current assets are the resources in cash or readily convertible into cash. Current assets include all those assets that in the normal course of business return in form of cash within a short period of time, ordinarily within a year and such temporary investment as may readily be converted into cash upon need (Mahmood et al. 2019). They include bank balance, cash, marketable securities, inventories and accounts receivables. A business must maintain an appropriate level of current assets. Over investment in current assets is not desirable. Excessive level of current assets can easily result in a company realizing a sub-standard return on investment (Hakim, 2020).

However, companies with too little amount of current assets may incur shortages and difficulties in maintaining smooth operations (Mielcarz et al. 2018).

Working capital management is defined by Lobos and Szewczyk (2022) as the administration of current assets in the name of cash, marketable securities, receivables and staff advances and inventories. Moussa (2018) defined Working capital management as the management of the investment in current assets and financing of the currents, and involves setting working capital management policy and carrying out that policy in business daily operations. Working capital is regarded as life giving force for any economic unit and its management is considered among the most important functions of corporate management (Le, 2019).

(a) Accounts receivable management

Sales on credit are inevitable necessity in the business world today. No business can exist without selling the products on credit. Ukaegbu (2014) noted that accounts receivables consist of the credit a business grants its customers when selling goods or services which take the form of either trade credit which the company extends to other companies or consumer credit, which the company extends to its ultimate consumers. The effectiveness of a company's credit policies can have a significant impact on its total performance. Habib and Huang (2016) also argue that receivables arise out of delivery of goods or rendering of services on credit. Receivables represent claims against others for future receipt of money, goods or services whose value depends upon the volume of credit sales and the policy for collecting such credits.

A higher accounts receivable show that the company takes longer time to collect amounts owed by customers whilst a shorter accounts receivable means that the company is able to collect amount owed by customers at a faster time period. An increase in the level of accounts receivable may help stimulate the sales of a company Umobong (2015) By offering extended credit to customers, companies may improve their profitability in the sense that it can entice customers to purchase more than is required. Umobong (2015) maintain that companies grant more trade credit to their customers when they have lower sales growth. High level of accounts receivable may also maximise profitability because it can serve as a quality guarantee to customers (Moussa (2018).

Inventory management

An inventory system is the set of policies and controls that monitor levels of inventory and determine what levels should be maintained, when stocks should be replenished, and how large orders should be. The costs of inventories comprise all cost of purchase, cost of conversion and cost incurred in bringing the inventories to their present location and condition. Inventory management should be undertaken to maximize the value of the firm. The firm should therefore, consider costs, returns and risk factors in establishing inventory policy. Inventories represent a significant investment for many organizations. The manager would not normally have control over inventory management alone but instead other functional departments will usually share decision-making authority regarding inventory.

Accounts payable management

A company will always wish to tie up as little cash as possible in disbursement. The idea in these systems is to have no more than the minimum amount necessary to pay bills on deposit in the bank (Swarnapali, 2019). The most significant source of short-term finances the trade credit and that it is relatively easy to obtain; that it varies with the amount granted; and that trade credit is an informal, spontaneous source of finance. It does not require any negotiations and formal agreement. There are many reasons for expecting a significant relationship between accounts payable period and company profitability. A higher value specifies that the company wait longer before settling suppliers and a lower value of the accounts payable period denotes the short time frame that it takes a company to pay its debts to suppliers. For a negative relationship, it has been argued that the loss of discount for early payment may affect company profitability (Michalski, 2016). Asking time to pay means that a company must forgo the cash discount usually offered by suppliers for early payment. And, as maintained by (Michalski, 2016) the amount of cash discount can be substantial.

Also, the decision to accept or request for credit period results in an inherent cost to a company, which diminishes profitability. Research by (Mahmood, et al. 2019), indicated that the combination of the 2 per cent discount for payment within 10 days of supplies and a net period ending on 30 defines an implicit interest rate of 43.9 per cent. Therefore, the high inherent cost involved in credit period will cause a reduction in profitability. Researchers such as (Mahmood et al. 2019) all found a negative association between accounts payable period and profitability.

iii. Financial Attributes

Financial attributes of a firm represent the capacity of the firm to handle its financial obligations. Staikouras, Christos and Agoraki (2017) opined that financial attributes represent the factors that show how well a business is doing and whether it is in good shape. To Saleem and Rehman, (2021) financial attributes are indices that measure the financial health of a business. Several financial attributes exist, however; this study conceptualizes leverage, liquidity and company size as financial attributes that may determine the profitability of a company.

(a) Leverage:

Extant literature in accounting has conceptualized leverage as the use of debt capital, by a company in relation to equity capital. Syed (2015) defined leverage as the extent to which a business or investor is using borrowed money. This means that leverage shows the extent to which the total assets of the company are funded by loans. It is necessary to state that an increase in the ratio ensures an increase in the amount of the business financing sources. The negative aspect of it is that it also leads to lesser degree of independence by a firm and threatens its financial solvency. Mohammad and Usman (2016) explains that leverage is referred to as the capacity of an organization to use borrowed money. This definition seeks to imply that leverage is the extent of use of fixed interest securities by an organization. Leverage is measured as the ratio of debt to total assets.

(b) Liquidity:

The concept of liquidity has been defined in several ways largely due to the fact that the concept arises from different economic perspectives (Marovza, 2015). Ismail (2016) asserts that liquidity can be defined in the context of how easy one can obtain funding to trade a security, the former being called market liquidity and the latter being funding liquidity. In this manner, liquidity is seen as a cost, whose impact on return on assets has to be assessed.

Reddy (2015) defines liquidity as the degree of convertibility to cash or the ease with which any asset can be converted to cash. This is essential to meeting short-term obligations of an organization. Johl, Kaur, and Cooper (2015) describes liquidity as the ability of a company to meet its short-term obligations using its most liquid assets (cash, receivables, among others). Liquidity is the ease with which a company can pay its bills and liabilities over the next year, especially if it must convert its assets into cash in order to do so. This study adopts this definition, which was

earlier conceived by Saleem and Rehman (2021), and sees liquidity as a measure of the short-term solvency of the business. It is calculated as the ratio of current assets to current liabilities.

(c) Company size:

There are different measurements for company size (Swarnapali, 2019). Basically, the three measures are documented in literature. The first group of such measurements is through inputs into the productive process. Here, the number of employees of a company, the labour input, some measures of assets representing the capital input, raw material used or amount of power consumed can be included. Studies that have used this measurement basis include Kumar and Kaur (2016) and Swarnapali (2019) who measured firm size in terms of total employment. They construe company assets as total number of employees hired by a company. This study conceptualizes company size in the context of total assets.

2.2. Theoretical Framework

This subsection reviews theories that explain the link between the variables of interest. The theories are selected and discussed based on the independent variables and their connectivity with the outcome or dependent variable.

2.2.1 Agency theory

The agency theory was developed by Jensen and Meckling (1976). The theory states that due to information asymmetry, agents are likely to act in their own advantage contrary to the desires of the owners. The agency theory relates to situations in which one individual (called the agent) is engaged by another individual (called the principal) to act on his/her behalf based upon a pre-determined legal arrangement. Since both individuals are assumed to be motivated by their pecuniary and non-pecuniary interests, and their interests do not always move in same direction, there is the contention that the agent may take actions which will endanger the principal's interests. Agency theory provides a basis for company corporate governance through the use of internal and external mechanisms. The corporate governance mechanisms are designed to mitigate agency conflict. One of such corporate governance mechanisms used for this purpose is board of directors which is expected to control the agent or entrenched management and enhance profitability of the company.

Furthermore, in order to mitigate the agency cost arising between managers and resource holders, the agency theory provides a basis for understanding on the governance of companies through

various internal and external mechanisms. Such mechanisms include audit committee which helps in reduction of agency costs and consequently achievement the desired level of performance, including profitability. An important measure of controlling agency costs is through the use of an audit committee which is an important part of the control system for internal monitoring Eyenubo et al. (2017), monitoring mechanisms such as audit committee enables the owners to closely monitor the activities of the managers. Weak monitoring may allow managers to engage in unethical practices, while effective audit committee will reduce such practices by managers. Based on the agency theory, audit committee functions are expected to yield a positive impact on performance, sustain compliance with the relevant laws and enhance the confidence of the investors. Agency theory thus provides a basis for company's governance through the use of internal and external mechanisms. The governance mechanisms are designed to mitigate agency conflict.

2.2.2 Resource based theory

Resource-based theory propounded by Penrose (1959) is a theory in strategic management and finance which emphasizes the need for organizations to articulate the relationships among company resources, capabilities, and competitive advantage by harnessing available resources judiciously using their capabilities and competences in a way as to achieve competitive advantage and sustain profitability. Penrose (1959) has contended that the company's ability to establish and sustain a profitable market position, critically depends on availability of underlying resources and capabilities.

Liquidity is an asset to the company, therefore, following the tenets of the resource-based theory, availability of liquidity and judicious use of it will lead to creation and sustainability of competitive advantage. This competitive advantage will command increased profitability for the company against its competitors. Since resource based theory sees liquidity as an asset to the company, it therefore means that, its proper use will avail the company the opportunity to settle short-term obligations that might mar its chances of making profit. Similarly, the resource based theory provides a theoretical foundation for the role of board of directors as a resource to the company. Penrose (1959) states the importance of unique bundles of resources a company controls that are crucial for its growth and profitability. Such resources include all assets, capabilities, organizational processes, company attributes, information, and knowledge controlled by a company, in order to improve efficiency and effectiveness (Tanna, Pasiouras & Nnadi, 2017).

From this point of view, corporate governance structure and the board composition are viewed as a resource that can add value to the company and enhance profitability of the company.

A key argument of the resource based theory, which was later coined by Pfeffer and Salancik (1978) as resource dependence theory, is that organizations attempt to exert control over their environment by co-opting the resources needed to survive. Accordingly, boards are considered as a link between the company and the essential resources that a company needs from the external environment for superior performance. In the resource dependence role, board of directors are deemed to be capable of bringing resources to the company, such as information, skills, innovation, ideas, business strategies, among others (Hillman & Dalziel, 2003). The resource based theory views the board as a resource that can not only supplant its need for other resources, but also influence the environment in its favor, and thereby improve the company's financial performance. Based on the tenets of the resource dependency theory, a positive relationship between large board size and company profitability is expected.

2.2.3 Structural inertia theory

The structural inertia theory which was put forward by Hannan and Freeman (1984) asserts that as an organisation grows larger, bureaucracy increases, inflexibility sets in which may cause resistance to change and ultimately decrease the level of profitability. Inertia is the strong persistence of existing structure and capability. For organization's survival or success, it may be good or bad to maintain strong persistence. Based on the resource-based view, firms can be seen as constituting a bundle of resources.

This means a functional relationship exists between company size and profitability. The negative relationship is due to the fact that when an organisation becomes larger, its increased bureaucracy causes stiff resistance to change which will ultimately decrease the level of profit. The study therefore proposes a negative relationship between financial attributes and profitability. This theory has been critiqued by Pearce and Zahra (1992) that resistance to changes may not be a function of size but deliberate attempts aimed at achieving certain goals. They contended that the size of the firm is a function of the quality and value of the firm as such large size should increase profitability.

2.3 Empirical review

Burja (2022) examined factors influencing company's profitability in the Romanian Chemical industry from 2015 to 2020. Four chemical companies were selected. The methodology adopted by the study was regression analysis and the techniques was fitting. Based on regression analysis, results reveal that inventories, debts level, financial leverage, efficiency of capitals affect the profitability (Return on Assets) of the companies. However, the study covered variables other than working capital attributes and corporate governance attributes which are slated for this study.

Lobo and Szewczyk (2022) sought to identify the variables that affect profitability of the manufacturers of mushroom compost in Poland. The variables used by the study were cost of sales to sales ratio, debt ratio, day's sales outstanding, cash conversion cycle and return on assets where return on asset was used as the dependent variable. A sample of 6 firms were drawn and the period of coverage was 5 years from 2016- 2021. Using descriptive analysis, correlation analysis and regression analysis, the result shows a strong and significant relationship between Cost of Sales to Sales Ratio and profitability (ROA). The study also found a weak and negative relationship between Days Sales Outstanding and profitability (ROA). Still, its foreign orientation might make its findings at variance with a study in Nigeria.

Mistry (2022) examined the determinants of profitability of Indian automobiles industry. The study employed Return on Capital Employed as the dependent variable and size, liquidity, inventory turnover ratio and debt-equity ratio as the independent variables. A sample of six (6) firms was used by the study and ordinary least squares analysis was employed by the study to analyse data. The study found that leverage, interest rate and size are the most important determinants of the profitability while liquidity was found to have negative effect on profitability. The finding of this study seems to go in line with other studies with regard to relationship between leverage, firm size, liquidity and profitability. Worthy of note is the fact that the relationship that exist among these variables in the Indian automobiles industry might not be same with the consumer goods sector considering the fact that both sectors operate in different economic, social, legal and political environments.

Saleem and Rehman (2021) studied the relationship between liquidity and profitability of oil and gas companies in Pakistan. Liquidity was proxied by current ratio (measured as the ratio of current assets to current liabilities), quick ratio (measured as the ratio of current assets less inventories to

current liabilities) and liquid ratio (measured as the ratio of cash plus investments to current liabilities). Profitability was proxied by return on assets and return on equity. The study covered the period of 6 years from 2014 to 2019. A sample of 26 listed oil and gas companies on the Karachi Stock Exchange was drawn. The results, using regression analysis, show that there is a significant impact of liquidity ratio on ROA. The study provides results that can explain the relationship between key variables (liquidity and profitability) which are core to this current study. This study will examine the determinants of profitability of consumer goods companies using variables like working capital and corporate governance attributes.

Golas (2020) examined the causative link between working capital management and profitability in milk processing companies. This research was done using micro-data for polish dairy companies from 2008-2017 obtained from the Emerging Information Service (EMIS) database. The regression analysis was used. The research used Days Sales of Inventory (DSI), Days Sales Outstanding (DSO), Days Payable Outstanding (DPO), Cash Conversion Cycle (CCC) as the independent variables and Return on Assets (ROA) as the dependent variable. The findings revealed that DSI and CCC had a negative effect on ROA when extended. DSO and DPO had a positive and significant impact on ROA when extended, concluding that working capital management significantly impacted profitability.

Phuong, and Hung, (2019) looked at the influence working capital management has on the profitability of firms in Vietnam. A sample of 5,295 firms listed on the Vietnam stock market was used, and the data gathered span from 2009-2018. The Generalized Least Squares (GLS) regression method was used. The study used Inventory Turnover, Average Receivables, Average Payment, Cash Conversion Cycle to measure the independent variables and Return on Assets to measure the dependent variable. It was discovered through the study that Inventory turnover, average receivables, average payment, and cash conversion cycle negatively impacted firms' profitability. Working capital should be optimized to increase firms' profitability and avoid a negative impact on the firm performance.

Ofumba and Onuegbu (2018) studied the effect of capital structure on firms' performance in Nigeria with special focus on only four firms listed in consumer goods sector of the economy. Multiple regression of Ordinary Least Square (OLS) analytical technique was used. The results

from the study revealed a negative and resources (tangible or intangible assets). These are key inputs into the production and delivery of goods or services which go a long way in improving performance of firms and provide it with a sustainable competitive advantage.

Bashar and Islam (2018) studied determinants of profitability of five of the top pharmaceutical firms in Bangladesh over the period 2012-2017. The sample size of 5 firms was used out of population of 173 listed pharmaceutical firms. The study used selling and general administrative expenses to net sales ratio, average inventory to cost of goods sold ratio, average accounts receivable to net sales ratio, average accounts payable to cost of goods sold and depreciation to net sales ratio as independent variables. The dependent variables, profitability was proxied by gross profit to sales ratio. Pearson coefficient model and multiple regression analyses were adopted by the study. The study established that only the inventory/cost of goods and account payable/cost of goods sold ratios can be considered as significant determinants of profitability of the pharmaceutical firms. The reviewed study was conducted using pharmaceutical companies but researches are also needed in the area of consumer goods companies.

Raheman and Nasr (2017) used a different measure of profitability namely Net Operating Profit to study the relationship between components of working capital management and profitability in Pakistan. Employing 94 Pakistani companies listed on the Karachi Stock Exchange with the use of regression analysis as the technique of data analysis, they found a significantly negative association between profitability and inventory holding period, accounts receivable period, accounts payable period and cash conversion cycle. The findings of the study are considered relevant to this present study since the components of working capital management employed in the study are also used in this study. Notwithstanding, the reviewed study differ from this study as this study is not looking at working capital alone but also is considering corporate governance attributes and financial attributes in determining profitability.

Mohammed and Usman (2016) examined the impact of corporate attributes on the profitability of listed pharmaceutical firms in Nigeria using a panel data of five sampled firms for a period of ten years (2004-2013). They extracted data from the annual accounts of the selected firms. Multiple regression technique was employed to examine the influence of corporate attributes on the profitability of listed pharmaceutical firms in Nigeria. The study reveals that firm size, leverage,

and growth have positive and significant relationship with profitability implying that they have impact in increasing share price. However, the relationship between liquidity and profitability was found to be insignificant and negative, indicating that liquidity has no influence in enhancing share price of listed pharmaceutical firms in Nigeria. The study therefore, recommended that firm size, leverage, and firm growth should be enhanced in view of their influence in increasing profitability, while liquidity should not be given any attention in an effort to raise profit.

Aparna (2015) sought to identify and analyse determinants of profitability of Steel Authority of India. The study used size, growth, liquidity, leverage and productivity as surrogates for determinants of profitability, based on existing literature. Size was measured as logarithm of total assets as distinct from Pratheepan (2014) who measured it as logarithm of sales. The measurement for growth was measured on the basis of year over year growth, while productivity, liquidity and leverage were measured as the ratio of total number of employees to total assets, ratio of current assets to current liabilities, and ratio of debt to equity respectively. Secondary data were collected for a single firm, Steel authority of India, over the period of 11 years from 2004 to 2014. The data, which amounted to 11 observations, were analyzed by using correlation and regression techniques through SPSS. Empirical evidence suggests that liquidity and productivity are positively correlated with profitability while Leverage, growth and size are negatively correlated with profitability. A key restraint with this study is that it utilized only one firm. Therefore, even though the methodology used is considered fitting, the findings of the investigation are limited due to the study's concentration on a single firm.

Johl Kaur and Cooper (2015) examined the impact of board characteristics on profitability, with emphasis on the effects of board meeting, board independence, board size and director's accounting expertise on firm profitability. The study used both financial and non-financial data from annual reports of the 700 public listed firms in Malaysia for the year 2009. The result shows that board size positively affects firm profitability while the other variables had insignificant effect with profitability. These firms were selected for just one year. Therefore, a study that uses a larger period might produce a more robust result.

Fahimeh and Shokat (2015) evaluated the connection between financial attributes and stock returns of firms in the concrete industry in Tehran Stock Exchange from 2004 to 2011. Proportions of financial qualities were: firm size, return on value, return on assets, value earnings proportion,

book-market value proportion, profit margin, profitability and financial influence. Board information strategy was utilized for information investigation. Finding shows that the factors of firm size, book-market value proportion, return on assets, and return on value are essentially identified with stock returns, however no relationship was seen between margin profit, financial influence, and value earnings proportion with stock returns. This study was done in a concrete industry in a foreign and cannot be generalized.

2.4 Gap in literature

The main thrust of the study was to examine the determinants of profitability of consumer goods companies listed on the Nigerian Exchange Group. The literature reviewed has produced mixed findings. These mixed results have made it difficult for good management decision making in the context of emerging economies such as Nigeria.

While some studies contend that variables such as liquidity, leverage, company size, and firm growth have significant relationships with company profitability, others submitted that they do not have significant relationships with profitability. This has led to inconsistent findings in the literature. However, this study has examined the determinants of profitability to cover financial attributes (leverage, liquidity and company size), working capital attributes (accounts receivables, inventory turnover and account payable) and corporate governance attributes (board size, board composition and audit committee) which have hitherto created gaps in literature on the determinants of profitability. The gap lies in the separate treatment of each variable. This study has grouped and collapsed the individual variables into company attributes.

In addition, most studies used multiple regression analysis as the technique of data analysis, in view of the presence of many proxies of the attributes that may determine profitability, this study has applied a different technique for the analysis of data which is the structural equations modeling technique, using those variables for each of the financial, working capital and corporate governance attributes. The result of the study will contribute to the literature by ascertaining which of the three attributes better determines profitability.

3.0 METHODOLOGY

3.1 Research design

This study has adopted correlational research design. It is considered most appropriate research design for this study in view of the fact that it warrants testing of expected relationships between and among variables and the derivation of logical inferences regarding such relationships.

3.2 Population and Sample of the Study

The population of this study consisted of twenty-one listed consumer goods companies on the Nigeria Exchange Group as retrieved from the Nigerian Exchange Group (NGX) Fact Book as at 31st December, 2022.

Purposive sample of 19 consumer goods companies listed on the Nigerian Exchange Group was selected and used in the study. The selection criterion for inclusion in the sample was based on consistent availability of data throughout the period of study. Based on this reason, two (2) companies were eliminated from the study.

3.3 Sources and Methods of Data Collection

The study used secondary source of data extracted from the published annual reports of the sampled companies covering five years period from 2018 to 2022 by Mageraetha and Supertika. The authenticity of the data was confirmed using annual reports of the sampled companies.

3.4 Measurement of Variables.

The variables for this study were divided into the dependent and independent variables. The dependent variable is the return on assets. The independent variables are categories into corporate governance, working capital attributes and financial attributes. The corporate governance attributes are proxied by board size, audit committee meetings and audit committee composition. Working capital management was represented by accounts receivables, inventory turnover and accounts payables. Financial attributes are proxied by leverage, liquidity and company size.

Table 1: Measurement of variable

Variable	Type	Measurement	Previous study
Profitability	Dependent	ROA(earnings/total assets)	Burja (2011), Magaretha and Supertika (2016)

Financial attributes	Independent		Al-Matari, Fadzil and (2015)	Al-Swidi, Al-Matari
Leverage (LEV)		Total debt/total assets		
Liquidity (LQ)		Current assets/current liabilities	Al-Matari, Fadzil and (2015)	Al-Swidi, Al-Matari
Firm size (SIZ)		Log of Total assets		
Governance attributes	Independent			
Board Size (BS)		number of board members	Babalola (2019) Okpe, Duru and Alor (2015)	
Audit committee meeting (ACM)		Number of audit committee meetings	Babalola (2019) Okpe, Duru and Alor (2015)	
Audit committee composition (ACC)		Ratio of non-executive to executive audit committee members	Babalola (2019) Okpe, Duru and Alor (2015)	
Working capital attributes	Independent			
Account receivables turnover period (ARP)		Account receivables/net sales*365	Ehiedu and Chukwunweik (2014)	
Inventory turnover period (ITP)		Inventory/cost of goods sold*365	Ehiedu and Chukwunweik (2014)	
Average payment period (APP)		Account payable/cost of goods sold*365	Ehiedu and Chukwunweik (2014)	

Source: Authors compilation

Model specification

$$ROA_{it} = \beta_0 + \beta_1 GA_{it} + \beta_2 WC_{it} + \beta_3 FA_{it} + E_{it}$$

Where:

ROA_{it} = return on assets for firm i in time t.

GA_{it} = Governance attributes of firm i in time t.

WC_{it} = working capital attributes of firm i in time t.

FA_{it} = Finance attributes for firm i in time t.

β_0 =Intercept.

$\beta_1, \beta_2, \beta_3$ = Model coefficients.

E_{it} =Error term

3.5 Technique of data analysis

The data was analysed using structural equations modeling. Statistically, it represents an extension of general linear modelling (GLM) procedures, such as ANOVA and multiple regression analysis. The model that has the capacity to estimate such relationship where the independent variables have a number of proxies to be estimated against the dependent variable is the structural equation's modeling. The test of normality is also important in this study because for structural equation's modeling to be estimated, the data must be normal. Correlation test is also use to test the multicollinearity of the data set or the strength in the effect between two variables that is the dependent and the independent variables and the independent variables themselves.

4.0 RESULTS AND DISCUSSION

This section focused on analyzing the data collected with the aim of generating findings.

4.1 Descriptive Statistics

The data for this study was first analysed using descriptive statistics. Table 3 present the results of the study below.

Table 2: Descriptive Statistics

Var	Obs	Mean	Std. Dev	Min	Max
ROA	95	2.736	1.302	0.56	5.72
BS	95	8.379	1.281	7.00	11.00
ACM	95	9.495	1.428	7.00	11.00

ACC	95	0.672	0.986	0.44	0.86
ACR	95	59.916	14.506	34.00	90.00
ITP	95	50.347	11.434	30.00	70.00
APP	95	60.884	12.524	34.00	90.00
LEV	95	0.409	0.277	0.03	0.91
LQ	95	1.823	1.752	0.17	7.00
SIZ	95	5.034	0.634	3.86	6.88

Source: STATA 19

Table 2 above indicated that ROA has an average of 2.735 and a deviation of 1.302 from the mean; the maximum and minimum was 5.72 and 0.56. BS had an average of 8.379 the deviation was 1.281 with the maximum and minimum of 11 and 7 respectively. ACM had an average of 9.495 with a standard deviation of 1.428 and a minimum of 7 the maximum was 11. ACC has an average of 0.672 the standard deviation was 0.099 with the minimum and maximum of 0.444 and 0.857 respectively. ACR has a mean of 59.916 days with a deviation of 14.506 from the mean; the minimum was 34 days while the maximum was 90 days. ITP had a mean of 50.347 days and deviated from the mean by 11.434 with the maximum and minimum of 70 days and 30 days respectively. APP had an average of 60.884 with a deviation of 12.525 from the mean and a maximum of 90 days and minimum of 34 days. LEV had a minimum of 0.026 and a maximum of 0.91; it deviated from the mean by 0.277 while the average was 0.409. LQ had a mean of 1.823 and a standard deviation of 1.752; the maximum was 7 and the minimum was 0.166. SIZ had a mean of 5.034 and deviated by 0.634 from the mean; its maximum was 6.878 and the minimum was 3.857.

4.2 Diagnostic Test The model was estimated and tested for equation's level goodness of fit and the structural level goodness of fit to gain assurance that the model was fit for interpretation and generalization of the findings.

Table 3: Results of Structural Equation's Modeling

	Var	Coef.	Z	P > Z
ROA				
	GA	-0.564	-3.51	0.000
	WC	1.93	9.90	0.000
	FA	0.004	0.24	0.813
	Prob.			0.000
	R ²			0.531
	Mc			0.728

Source: STATA 19

Table 3 indicated that the model was fit for interpretation because the probability of the structural goodness of fit was 0.000 which was less than 0.05. Also, the equation level goodness of fit was satisfactory since the R² was 0.531 which was an indication that the explanatory variables could predict about 53% of the changes in the independent variable if all other variables are held constant. To be more specific, the result predicted that if all other variables are held constant, a unit change in GA will significantly (0.000) change ROA by 0.564 units. In addition, the analysis revealed that within the study period if all other variables are held constant, changes in WC would significantly (0.000) change ROA by 1.932. Furthermore, the analysis posits that given the period under investigation, if all other variables remain constant FA will insignificantly (0.813) change ROA by 0.004 units. The result also revealed a correlation of 0.728 which was an indication that a high correlation exists between profitability and the determinants of profitability in the study which also mean that changes in the predictors can highly affect ROA.

4.3 Test of Hypothesis

The following hypotheses were earlier formulated in section one and the hypotheses were tested as follows:

H₀₁: Corporate governance attributes do not determine the profitability of Consumer Goods Companies listed on the Nigerian Exchange Group.

H₀₂: Working capital management attributes are not determinants of profitability of Consumer Goods Companies listed on the Nigerian Exchange Group.

H₀₃: Financial attributes are not determinants of profitability of Consumer Goods Companies listed on the Nigerian Exchange Group.

The decision rule to test the hypotheses is to reject the null hypothesis if the calculated Z-value is greater than the critical value of ± 1.96 . The data to test the hypotheses is on table 3 above. The H₀₁ Hypothesis was rejected because the calculated Z value is -3.51 which is above the critical value of ± 1.96 ; this shows that corporate governance attributes (GA) are determinants of profitability of consumer goods companies listed on the Nigerian Exchange Group. Similarly, the H₀₂ is also rejected since the calculated Z value was 9.90 which was higher than the critical value of ± 1.96 . Therefore, working capital management attributes are determinants of profitability of consumer goods companies listed on the Nigerian Exchange Group.

The Null hypothesis H₀₃ was accepted that financial attributes do not determine profitability of consumer goods companies listed on the Nigerian Exchange Group because the calculated Z value was 0.24 which was within the region of non-rejection of the null hypothesis.

4.4 Discussion of Results

The results for this study were discussed based on the objectives and hypotheses formed in section one. Data were collected and analysed wherein results were obtained and discussed.

4.4.1 Governance attributes and profitability

It was stated that governance attributes are not determinants of profitability of consumer goods companies in Nigeria. The apriori expectation was that governance attributes would have significant effect on profitability and as such be a determinant. Finding shows that corporate governance attributes have significant effect on profitability, same with that of U-Ungwa (2017) and Florin (2018) who found similar results amongst the variables. The significant nature of the relationship between the variables may result from the fact that audit committee meeting, audit committee compositions and board size which was proxies of governance attributes may have

direct effect on returns on assets because returns on assets depict how well management is using the assets of the firm in generating income.

4.4.2 Working capital attributes and profitability

In line with the apriori expectation, working capital had significant effect on profitability of the companies investigated. Working capital which was proxied by account receivables period, inventory turnover period and average payment period had significant effect on returns on assets because the companies investigated had maintained a manageable working capital period to ensure that receivables are received on time as well as payables. This avails the opportunity to maintain steady transactions that improved the returns on the assets. This finding is consistent with the findings of Burca and Batrinca (2018) in their research on the determinants of profitability.

4.4.3 Financial attributes and working capital

Contrary to the expectation that financial attributes will have significant effect on profitability, the study found that financial attributes within the study period had insignificant effect on profitability. The financial attributes were measured using liquidity, firm size and leverage. The insignificant effect of the relationship between the financial attributes and profitability may not be unconnected with the fact that in predicting the returns on assets, the size of the assets does not matter what is important is whether or not the assets are properly managed. This finding implies that companies investigated should concentrate more on how well financial assets are managed instead of focusing on the quantity of the assets only. The findings of this study were supported by the findings of Saliha and Abdesatar (2021) that debt had insignificant effect on financial performance.

5.0 CONCLUSION AND RECOMMENDATIONS

The study examined the determinants of profitability of consumer goods companies in Nigeria. The focus of the study was to find if governance attributes, working capital attributes and financial attributes determine the profitability of consumer goods companies in Nigeria.

5.1 Conclusion

The specific objective of the study was to examine whether Corporate Governance attributes, Working Capital attributes and financial attributes were the determinants of profitability of

consumer goods companies listed on the Nigerian Exchange Group. Based on the findings of the study, the study concludes that;

- i. Effective corporate governance structures enhance the profitability performance of the listed consumer goods companies in Nigeria. These findings underscore the importance for firms to prioritize strong governance practices to achieve and sustain higher profitability levels.
- ii. Working capital attributes play a crucial role in influencing the consumer goods company's profitability and the effective management of working capital components enhances financial performance.
- iii. Financial attributes, contrary to common assumptions, do not significantly influence the profitability of listed consumer goods companies in Nigeria. This suggests that other factors, potentially including management practices, market conditions, or operational efficiencies, play a more pivotal role in determining profitability of the listed consumer goods companies.

5.2 Recommendations

Based on the findings of this study, the following recommendations were made:

- i. There is need for the Security an Exchange Commission to implement robust governance frameworks for listed consumer goods companies in Nigeria to enhance profitability. This includes enforcing transparency, strengthening board oversight, promoting ethical practices through periodic independent audits to ensure compliance. These measures will improve investor confidence, operational efficiency, and overall financial performance of the companies.
- ii. Nigerian consumer goods companies should enhance their profitability by optimizing working capital management. Key actions to consider include maintaining an optimal inventory level, ensuring efficient accounts receivable and payable cycles, and implementing robust cash management practices. These measures will improve liquidity, reduce financial costs, and enhance overall financial performance, contributing to sustainable profitability and competitiveness in the market.

- iii. Other than financial attributes which is less significant in enhancing profitability of the listed consumer goods companies in Nigeria, managers should focus on enhancing non-financial attributes such as innovation, market penetration, and customer satisfaction to drive profitability and sustain competitive advantage in the market. This can be achieved through investment in technology, product quality, and efficient supply chain management.

5.4 Suggestion for Further Studies

There is enormous scope for more research that can inform an understanding of determinants of profitability. Therefore, this study suggests the following for further research areas.

- i. The study considers a sample size of 19 companies out of the 21 listed consumer goods companies on the Nigeria Exchange Group (NGX). Therefore, additional investigation is required to examine the determinants of profitability of the 21 companies in events of future available data.
- ii. Another research area that could be extended is to examine the determinants of profitability of consumer goods companies that are not listed.
- iii. Future studies can be done using qualitative methods to gain insight to the perception of managers on factors that could serve as determinants of profitability of consumer goods companies.

5.5 Contribution to Knowledge

This study has applied the structural equation modeling technique which captures the main and subsidiary variables (financial, working capital and corporate governance attributes) not found in prior literatures on consumer goods companies listed on Nigerian Exchange Group. The study result contributes to profitability determinants literature by ascertaining that, governance attribute contributes to -0.564-unit change in profitability at a $0.000 < 0.05$ level of significance. Further contribution made by the study is to profitability determinants literature is that, working capital attribute contribute to 1.93-unit change in profitability at a $0.000 < 0.05$ level of significance. Lastly, the study result contributes to profitability determinants literature by ascertaining that, financial attribute contributes to 0.24-unit change in profitability at a $0.813 > 0.05$ level of significance. The study evidence is based on the case of the listed consumer goods companies in Nigeria.

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