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**Purity Githiomi & Dr. Jeremiah Koori, PhD**

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
*Vol. 11, Iss.1, pp 744 – 765, March 30, 2024. www.strategicjournals.com, © Strategic Journals*

# BOARD STRUCTURE AND PROFITABILITY OF MANUFACTURING AND ALLIED FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE, KENYA

**[1] Purity Githiomi & [2] Dr. Jeremiah Koori, PhD**
[1] MBA Student, School of Business, Economics and Tourism, Kenyatta University, Kenya
[2] Lecturer, Department of Accounting and Finance, School of Business, Economics and Tourism, Kenyatta University, Kenya

**Accepted: March 14, 2024**

**DOI: http://dx.doi.org/10.61426/sjbcm.v11i1.2881**

**ABSTRACT**

*This survey ascertained how structure of the board affects financial performances of firms in manufacturing and allied industries listed on NSE. In particular, the study evaluated the influence of board size, gender composition and independence on financial performances of manufacturing companies registered on NSE, Kenya. Agency theory, stakeholder's theory, institutional theory and dynamic capability theories served as theoretical reviews for the study. To achieve this, an explanatory method of design was used to select a target population sample of all eight (8) manufacturing and related firms listed at NSE Kenya. Census sampling was utilized to sample all eight (8) manufacturing and allied firms listed on NSE. Secondary data was utilized for the study. Diagnostic tests encompassing homoscedasticity, autocorrelation, multicollinearity, stationarity, and specification were applied on the panel data, obtained from firms' audited financial statements and financial reports from 2015-2022, was analyzed using panel multiple regression analysis, correlation analysis, and descriptive statistics (mean, standard deviation, and frequency). 0.05 significance level was applied as threshold for hypothesis testing. Outcomes unveiled in the study showed a significant positive effect of board independence on financial performance; board size yielded an insignificant negative effect on financial performance; board gender diversity uncovered an insignificant positive effect on financial performance; while a insignificant moderating effect of firm size on the relationship between board structure and financial performance within Kenyan manufacturing and allied firms listed on the NSE was revealed. The study recommended that the board independence should be strengthened to enhance the financial performance of the firms as this would allow for greater independence in decision of the board as it pertains to the financial performance of the studied firms in Kenya.*

***Key Words:*** *Board Independence, Board Size, Board Gender Diversity*

**CITATION:** Githiomi, P., & Koori, J. (2024). Board structure and profitability of manufacturing and allied firms listed at the Nairobi Securities Exchange, Kenya. *The Strategic Journal of Business & Change Management,* 11 (1), 744 – 765. http://dx.doi.org/10.61426/sjbcm.v11i1.2881

## INTRODUCTION

The sunrise of advanced manufacturing era in the eighteenth century as well as the advancement in technology in the late nineteenth hailed the occurrence of huge companies, which necessitated the split of capitalist enterprises out of its direct authority (Manini &Abdillahi, 2018). Business owners (principals) were efficaciously disempowered in their oversight function as a result of the size of evolving businesses, unwilling to assume complete management over their capital because they lacked the necessary knowledge, the necessary time, the necessary motivation, or any combination of these (Müller, 2019). Board structure is currently largely accepted as a metric for how well businesses are conducted. It serves as a sign for investors to understand the style of management and the strength of the board of a company (Ejike, 2019). In order to create safer and more desirable markets, governments vying to implement fiscal reform have increased their attention on corporate governance.

Globally, with over 2.0 million businesses, manufacturing made up roughly one-tenth (8.9%) of all businesses in the non-financial business economy of the European Union in 2019. About 30.2 million people were working in the manufacturing industry in 2019, and it produced €1 999 billion in value added (Eurostat, 2022). In the USA, the fifth-largest employer in the United States is the manufacturing sector (Tambunan, 2019). However, the industry is experiencing problems like a widening skills gap, excessive borrowing rates, and a change in consumer spending from goods which are usually purchased on credit to services (Pere, 2019). Additionally, companies are keeping a close eye on their inventory in case demand declines. The UK's manufacturing industry is performing worse than it used to because of factors like low staff retention, banking constraints, exchange rate fluctuations, concerns about the long-term viability of supply chains, and pressure to lower costs, brexit trade hurdles, exorbitant transportation costs, and issues with global supply (Ayub, 2020).

According to Osebe, Kirui, and Naibei (2019), listed companies in Kenya are thought to be among the biggest businesses in the nation and as such, they make a major economic contribution. Kenya's main objective is to reach the objectives outlined in Vision 2030. Notably, the manufacturing industry is essential to reaching this objective since it supplies the resources needed to build associated projects. In addition, it plays a significant role in economic expansion and meets people's needs for human resources (GOK, 2019). Kenya's GDP receives an annual contribution from the manufacturing sector of almost 12% (KIPPRA, 2020). It serves both the local and regional markets with its services. Ensuring and maintaining high quality standards while minimizing expenses is crucial for fostering better business partnerships and boosting revenue.

Today's corporate governance discussion centers on board structure and performance of the organization is affected in the purview of accelerating internationalization, economic openness, prominent business scandals, ongoing regulatory changes, and growing consumer demands for managerial responsibility and openness (Abdi, 2021). Boards have grown more apparent in today's corporate environment, according to Amaning (2021), thus it is important to think about how their composition impacts everyone involved and the performances of the organization. Board member personality qualities affect organizational decision-making processes (Abdulakim, Yusuf, &Isah, 2020). Board members ought to possess trust, which stems from bravery and expertise, honesty, which comes from individual traits, and judgment, which comes from knowledge and experience. Because of this, it's essential to have a variety of kinds of personalities on the board in order to properly manage conversations, disagreements, and everyday interactions (Cherotich&Obwogi, 2018).


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Board structure relates to operations of a corporation's platform of directors and their relationships with interested parties, staff, and management staff, and other valid decision makers (Oziegbe&Okenwa, 2021). Board of directors is responsible for overseeing organizations' decision-making as well as financial efficiency (Yakob&AbuHassan, 2021). An insufficient board structure rattles investor trust and lessens investments in the company, whereas favorable and beneficial company governance has a positive and uplifting impact on investments. Board of directors provides rules and operational structures related to an a company's capital structure, which has an impact on its financial development (Thakolwiroj&Sithipolvanichgul, 2021). Board Structure consists of board independence, sizes, age and gender (Gwaro, 2019). In this study, it was assessed using board independence, size and gender diversity.

Board independence is constituted through the existence of non-executive directors who have no financial interest in the company's equity and who do not take part in its activities (Aifuwa& Engel, 2019). In the 1990s, companies started to include parties with no link to the organization and only a stake in the shareholders on their boards, which led to the rise in popularity of independent board directors on a global scale (Ayodeji&Okunade, 2019). Additionally, non-executive directors are crucial to a company's ability to resolve agency issues, so having them on board may help the organization make decisions more rationally and effectively (FakileOluwaseye&Aiyenijo, 2019). The proportion of non-executive (outside) directors within a company's board of directors in a specified fiscal period who do not participate actively in the regular affairs of organizations is explained as board independence (Isik & Ince, 2019). It was measured as ratio of non-executive to total executive directors.

Board size according to Saidu and Aifuwa (2020) represents all of the board's directors. Board sizes have an impact on members' decision-making since different board sizes might have favorable or unfavorable outcomes (Akinwole&Ajide, 2020). Board sizes, in the opinion of Pucheta-Martinez, Consuelo, and Gallego-Alvarez (2020), are significant elements of boards' characteristics since they indicate total number of directors who have potentials to affect a company's survival and financial results. Pugliese and Wenstop (2018) define board size as total number of people who can cast a vote on company's board of directors. Previous research indicates that larger board of directors is associated with lower performances (Belkhir, 2019). Board size, in accordance with Onyali and Okerekeoti (2018), is the overall amount of directors serving on the governing board of an organization. This description emphasizes that total number of people selected to a corporation governing board is absolute number. According to his definition, sizes of board of directors of corporation determine how effectively it performs its fiduciary duties (Aigbovorhiuwa, Adediran & Achimugu, 2022). It was assessed in this study as overall amount of board members.

Board gender diversity is proportion of women serving as corporate board directors (Hede, 2019). Impacts of presence of women on company governing bodies as well as within top management on the social-economic sustainability of enterprises is increasingly being recognized (European Commission 2018). It is commonly believed that men predominate on corporate boards since the majority of the selection committee in Kenya is made up of men who have established connections, friendships, and previous contacts. Due to this tactic, there aren't enough women serving on the boards of Kenyan companies. However, as per the recently enacted Kenyan constitution (2018), a minimum of thirty percent of all contenders for public office must be female or male (Wachudi and Mboya, 2018).

Consideration of men as well as women having equivalent capabilities and equal opportunity are examples of diversity across boards (Aigbovorhiuwa, Adediran & Achimugu, 2022). Diversity based on gender in work environments means that both male and female employees are treated equally and accepted at all organizational levels (Ninla, 2019). According to Onyekwerea and Babangida (2022), women directors are thought to be more risk averse and think about a variety of stakeholders prior to rendering decisions. It was measured as proportion of female to male board members.

A firm's size refers to its capacity, as well as the diversity and range of operational capabilities, or the number of units and options available to its clients at the same time (Peter, Paul &Tirisa, 2022). One common profitability metric in finance is firm size. Total assets, total sales, and capital structure of a company can all be used to quantify it (ISE, 2019). A firm's size can be defined as the entire assets it owns divided by its management capacity (Reschiwati, Syahdina&Handayani, 2020). Large and small firm sizes are the typical classifications for firm sizes (Aulia&Agustina, 2018). Pribadi (2018) asserts that larger firms are more likely than smaller firms to have greater accessibility to finance, which they can then use to increase earnings. The rate and scope of growth that is optimal for a particular company are referred to as its size. The term "firm size" is commonly used to describe the benefits and inefficiencies of scope in the manufacturing industry. A large firm may save money due to the benefits of scale and breadth.

According to Robin, Salim, and Bloch (2018), this is the degree whereby the financial soundness of a business is evaluated over time. In the context of its fixed and non-fixed resources, capital, financing, earnings, and costs, it is a financial accomplishment used to produce greater earnings, sales, and business value for its shareholders (Naz, Ijaz& Naqvi, 2016). Financial performances is a skewed evaluation of how successfully a business uses resources from its primary entity strategy to turn a profit. Additionally, it serves as a broad gauge of a business's financial standing at any given moment (Gharaibeh, 2015).

Nairobi Security Exchange (NSE)is the primary stock market in Kenya. Since its founding in 1954, NSE has gained widespread recognition as one of Africa's leading stock exchanges, drawing in a sizable number of both local and foreign investors (NSE, 2019). In regard to market's value and volume of trading, NSE is regarded as continent's fourth largest stock exchange. As a result, many companies from every sector of the economy have been listed on NSE, and their shares are performing well (Buigut&Soi, 2020).NSE currently has 66 publicly traded firms, which are divided into thirteen major industry sectors such as investment services, banking and commercial services, Agriculture, insurance, manufacturing & allied industries, motor vehicles and fittings,telecommunications & technology, building and related sectors, energy and petroleum, Investment trusts for real estate (NSE, 2019).

In present years, listed manufacturing companies' financial performance has declined. The companies under study's total ROA fell, particularly for the listed manufacturing and allied industries, according to statistics from the NSE. There has been an increase in businesses issuing profit warnings in recent years. A profit warning informs investors that they should anticipate drop-in earnings of at least 25% from the prior year (Theuri, 2021).Crown Paints Kenya PLC, Unga Group, Carbacid Investments Ltd, Bamburi Cement Ltd, East African Portland, and BOC Kenya are among manufacturing companies listed that have given profit warnings in years 2018 to 2019 (CMA and NSE, 2019).

**Statement of the Problem**

Kenya's manufacturing and related industry is vital to country's growth economically. For Kenya's vision 2030 to be realized, the sector is essential. The

manufacturing industry has experienced a downturn throughout time (Meme, 2017). The manufacturing GDP of Kenya has however experienced declining performances from 11.16% in 2011 to 7.24% in 2022 (WDI, 2023). Reports on manufacturing and allied industries have revealed that their financial performance has been falling over the previous few years.

Manufacturing sector's contribution to Kenya's GDP in years 2016 to 2019 ranged from 4.8% to 3.6%, which is less than the 5.6% it made in 2015 and noticeably less than the desired benchmark of 10%. Several of the listed manufacturing companies had seen falling earnings in terms of their performance. The net income and equity return of businesses including East African Portland Cement, Mumias Sugar, and Eveready East Africa were all negative. The manufacturing sector's contribution to Kenya's GDP in 2016 and 2017 fell short of the desired level (KNBS, 2018). Manufacturing and allied companies listed on NSE saw a decline in their Return on Assets from was 9.3 in 2016, 8.7 in 2017, 8.4 in 2018, 7.9 in 2019, 7.6 in 2020, 7.2 in 2021 (Mayi&Njoka, 2022). Mumias Company saw diminishing profitability in terms of ROA; ROA was 2.5% in 2014, 0. 6% in 2015, and finally 0.02% in 2016. Additionally, East African Breweries' ROA rate fluctuated from 0.6% in 2014 to 0.5% in 2015, then grew to 0.7% in 2016 before dropping to 0.6% in 2017 (Marigu, 2020). The declining firm's ROA occurred as a result of overinvestment in assets and failure to generate revenue growth. The realization of Kenya's 2030 objective is threatened by these companies' decreasing financial performance, necessitating a rigorous analysis. This serves as the foundation for this study, which aims to investigate how the board structure of manufacturing and related companies quoted at Kenya'sNSE, affects financial performances.

Various studies have been carried out on board structures and financial performances. Oludele (2016) examined connections between board independence and performances of quoted industrial organization in Nigeria, Rashid (2018) determined impacts of independence of boards on financial efficiency of listing companies in Bangladesh, and also Shahid (2022) investigated impacts variety in knowledge, experience, as well as longevity aspects of cognition boards on the probability of financial difficulty in China's expanding marketplace. These studies where carried out outside Kenya, where operations are different thereby providing a contextual gap. In addition, Mwaura (2017) investigated the link between board qualities and banking profitability in Kenya, from 2012-2016. Oludele (2016) used purposive sampling technique, Mulma (2020), using both a static and a dynamic panel data model providing methodological gaps. Kithinji (2018) investigated how the size of a bank influences the connection among bank restructuring and financial performance in Kenyan commercial banks, providing a conceptual gap, as in this study firm size was used as a moderating variable. Also, there exist limited studies on board structures and financial performances of manufacturing and allied companies especially using firm size as a moderating variable. Thus, the survey examined on how board structures affect the financial performances of manufacturing and allied Kenyan companies.

**Objectives of the Study**

This study aimed at analyzing board structure effect on the financial performances of manufacturing and allied companies quoted on NSE, Kenya. The specific objectives were;

- To ascertain the effect of board independence on financial performance of manufacturing and allied listed on NSE, Kenya.
- To examine the effect of board size on financial performance of manufacturing and allied Firms listed on NSE, Kenya.
- To establish the effect of board gender diversity on financial performance of


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manufacturing and allied firms listed on NSE, Kenya.

- To examine the moderating effect of firm size on the connection between board structure and financial performance of manufacturing and allied firms listed on NSE, Kenya

**The study was guided by the following hypotheses;**

- **$H_{01}$**: Board independence has no significant effect on financial performance of manufacturing and allied firms listed on NSE, Kenya.
- **$H_{02}$**: Board size has no significant effect on financial performance of manufacturing and allied firms listed on NSE, Kenya.
- **$H_{03}$**: Board gender diversity has no significant effect on financial performance of manufacturing and allied firms listed on NSE, Kenya.
- **$H_{04}$**: Firm size has no significant moderating effect on the connection between board structure and financial performance of manufacturing and allied firms listed on NSE, Kenya.

## LITERATURE REVIEW

### Theoretical Review

Resource Dependence Theory, Stewardship Theory, Dynamic Capability and Agency cost theory were reviewed in this study.

Resource Dependence Theory

Pfeffer (1973) propounded resource dependency theory. It focuses on boards' roles towards the acquisition of resources, rather than utilization. The theory holds the assertion that directors of companies strive towards creating links between corporation and its other associated variables via co-opting the assets and funds need for organizational survival. The theory indicates how the other associate's attributes of the corporation impacts on its features thereby having focus on the co-reliance of corporations with the external environment. It focuses on the key notion that; a board performs several roles which include providing the necessary assets, such as skills, work contracts, professionalism as well as exposure. The proposition is viewed as a management-based proposition that focusing on directors' resource roles covering selected board attributes and audit committees as well (Khalifa, 2018). The theory reveals that the board of corporations performs critical functions among external structures and resources necessary to improve firm's value. The study supports board size variable.

Stewardship Theory

Schoorman and Donaldson (1997) who related steward to be an person that performs the role of providing protection to investors contribution through the maximization of their wealth by increasing the general organizational performances developed stewardship theory. Stewards as such are executives of companies and managers who operate for the equity-owners through accountability as well as guarding and keeping owners' returns. The executives and managers of corporations are regarded as the stewards who work for the shareholders by protecting and generating profitability for them. The stewards remain motivated and satisfied in situations whereby the corporations achieve its aims and objectives and ultimately succeed. Conversely, it remains a burden on them when good results are not forth coming as they strive to satisfy shareholders by maximizing their returns while carrying out their assigned tasks and responsibilities. Employees of corporations take ownership of assigned roles while working at them in a diligent manner.

In view of the prepositions of this theory, the key aims of mangers entails the maximization of returns as managers are held responsible and accountable for performances of activities and roles which enhance investments returns of shareholders. The key objective stemming around the motivation of


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managers towards performing particular task entails improving their excellence levels in the accomplishment of mission, goals and objectives of the organization. In contrast, there is emphasizing requirement for managers and workers towards acting in their best possible ways towards maximizing the returns of shareholders (owners). This in turn may enhance the minimization of prices with the aim of observations. Conversely, in defending the image which they possess as corporations' head, administrators and managers' area unit are positioned towards maximization of the monetary performances as well as profitability and firm value for shareholders. The theory supports board independence and board gender diversity which makes it suitable for the study.

Agency Cost Theory

Meckling and Jensen (1976) created agency cost theory, whereby management are agents while proprietors are principals. Executives strive to serve requirements of the proprietors and are rewarded with ample opportunity in order to satisfy both the proprietors' objectives and the monetary efficiency and also the worth of the owners. There are 2 explanations why agency charges affect publicly traded corporations. First factor is that tiny businesses have less than 50 percent equity, which means that agency charges are non-existent. The second factor is the engagement of members of the family in the running of smaller firms, which does not incur any agency costs. Tax evasion causes friction amongst a company's management and its shareholders or proprietors. According to Dharmapala and Desai (2009b), financial failure causes agency difficulties such as opportunistic behavior, in which managers seek to reduce operational expenses as well as redirecting assets for personal profit or even other purposes within corporations.

Management may be acting for their own shared advantage as opposed to firm's, according to Ang, Cole, and Lin (2000). This thesis discusses ways executives, acting as agents, might deceive a company by employing financial performance tactics to allocate business profit for individual advantage. As previously said, financial performance can be favorable or detrimental to a company, particularly if the management do not follow good management procedures. Recent research has demonstrated that combining business with effective board of director's management leads to higher anomalous investment rewards (Wilson, 2009). The study supports board size and gender diversity on financial performance.

**Institutional Theory**

The theory's proponent, North (1991), said that Institutionalists primarily concentrate on the financial viability of microfinance firms. These thinkers contend that a huge company is more likely to be sustainable than a small one. According to Woller et al. (1999), institutionalists believe that the primary goal of businesses should be to strengthen the financial markets. In order to give the underprivileged or poor access to financial services, financial deepening refers to the development of a sustainable financial intermediation. Most large businesses have easier access to finance than smaller businesses, which increases their likelihood of performing well since they are eligible for tax deductions.

Institutionalists contend that firms should place a larger importance on the sustainability of their finances as shown by fiscal self-sufficiency (profitability) (Brau and Woller, 2004). Their reasoning is based on the fact that, in the majority of situations, donor dependency is uncertain, and that without the ability to support its own financial operations, a corporation will not be able to provide long-term assistance to the poor. There is a possible conflict that, in contrast to encouraging financial sustainability, might cause firms to veer away from its goal of reducing poverty (Drake and Rhyne, 2002). It may be determined through a detailed review of institutionalists' arguments that the problem is one of


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funding (Brusov et al., 2013). However, compared to smaller businesses, large businesses have easier access to financing. This is due to the institutionalists' desire for businesses to be able to cover all of their expenses with internally produced cash while yet having a chance to turn a profit. This is an example of a sustainable business. The enterprises have achieved sustainability if they can maintain operations while also achieving their social goals.

**Dynamic Capability Theory**

The theory was put forth by Amy Shuen, Gary Pisano, and David Teece (1997). The resource-based view's (RBV) incapacity to explain the evolution as well as the renewal of capacities as well as funds for dealing with environmental dynamics gave rise to the dynamic capacities (DC) theory as a counterargument and adjunct (Grant, 1991). The idea that a company's long-term competitive advantage stems from the acquisition of valuable, rare, unique, and non-substitutable (VRIN) resources is expanded upon by dynamic capabilities theory. To react to quickly changing surroundings, organizations can employ dynamic capabilities to gather, mobilize, and realign their resources and capabilities (Teece, 1997). As a consequence, a business can reengineer its strategic resources to gain a sustained competitive advantage through the use of dynamic capabilities processes.

Organizational capabilities are natural evolutionary processes that support managers in achieving organizational goals through enhancing decision-making, promoting creativity, and enabling problem-solving. But according to Roper (1997), an organization needs to actively connect with and satisfy the demands of its industry market in order to reach the performance levels that are intended. Simply having organizational capabilities within a company is not enough. The notion encourages inventive capacities, which necessitate a company's handling of its activities to take a dynamic and adaptable approach (Mahoney, 1995). Adopting a dynamic and adaptable mindset will help manufacturing organizations overcome and even prosper in a constantly changing business environment. Businesses can boost overall financial performance and profitability by being able to survive in a dynamic, competitive environment. Therefore, this theory supports the dependent parameter, financial performance.

**Empirical Review**

Rashid (2018) investigated impacts of board independence on financial efficiency of listing enterprises in Bangladesh. Investigation gathered information from 135 Dhaka Stock Exchange-listed companies. Board independence was assessed by the ratio of population of outside to total directors. Financial reporting and stock performance indicators were employed in the research. Conclusions of this research demonstrated that board independence has no major impacts on company's financial success. Investigation applied ROA as measurement for performances and Tobin's Q as measure of stock performances as indicators. The survey was conducted on enterprises quoted on Dhaka Stock Exchange Bangladesh, while this investigation was carried out on manufacturing and allied publicly trading on NSE, Kenya.

Adika, Maru and Mugambi (2018) sought to ascertain effects of board independence on listed firms' feat in NSE using descriptive and explanatory research design. This was a census study since it included all 45 firms for years 2007 to 2013. Non-executive directors of board were used to gauge board independence. NSE handbook, yearly reports, and business websites were origin of secondary data. Investigation applied panel data as well as traditional model of linear regression for analyzing aggregated data, and it used as well as descriptive analysis to evaluate primary data. Board independence was shown to demonstrate a statistical substantial effect and direct impacts on business performances. The study used time period from 2007- 2013 and utilized both descriptive and explanatory research design, this


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study used data from 2015-2022 and utilize explanatory research design.

Assenga (2018) determined influences of board sizes on Tanzanian firms revenue performances. Board took into consideration external CEOs, board sizes and CEO duality. It had brief period of time 2006–2013 to reach goal of eighty firms. Data from scattered materials was gathered, and vital data from twelve significant collaborators was obtained through semi-structured survey. The study found no correlations between financial performances and independent directors, board sizes and international executives. Report states that managers need to understand relationships between board and outcomes. There was contextual gap in the investigation because the study was conducted in Tanzania, but this one was conducted in Kenya. Also, this research incorporated firm size as moderating variable.

Olayiwola (2018) investigated impacts of corporate governances on company performances. Study's goals were to evaluate impacts of board sizes, composition, and audit committee sizes on corporate performances, both independently and collaboratively. Research applied exploratory approach. Ten (10) publicly traded companies were picked by selective sample approach and data taken from financial statements among these companies since year 2010-2016. Data was estimated employing panel data regression. Board sizes, composition, along with audit committee size were used to estimate CG, whereas net profit margin was used to estimate performance. Board sizes had substantial adverse connections with NPM, composition of board had substantial favorable connections with NPM, audit committee size had non-significant relationships with NPM, and board size, board composition, and audit committee size all had substantial combined impacts on NPM. The research was also conducted on listed companies in Nigeria, whereas this investigation focus is on quoted manufacturing and allied companies in Kenya.

Aladejebi (2021) ascertained effects of gender diversity on performances of Nigerian listed deposit banks. Information was gathered from publicly traded banks' NSE websites. By dividing total number of directors by number of female directors, gender composition was determined. Data was examined using SPSS. Descriptive statistics were utilized in investigation. Thirteen (13) banks of deposits were participated in data sourcing process. Results showed having more women on board may not necessarily result in advancements within an organization's monetary standing. As a result, there are strong inverse relationships between bank performances and percentage of women on their boards. The aforementioned study was performed in Nigeria and focused on listed deposit banks. The recent study was done with focus on Kenyan manufacturing and allied firms.

Relationships between income distribution of Middle Eastern companies and diversity of females on boards were examined by Habash and Abuzarour (2022). From 2008-2015, panel data was utilized to investigate correlations between gender mix of boardroom and financial performances of Palestinian public enterprises. Manual collection of data was done from official websites and annual reports of companies. Data consisted of thirty (30) listed companies with balanced annual panel data set for years containing one hundred and fifty (150) observations across four-year period. Findings demonstrated significant legal discrepancy between percentage of women serving on boards and gender makeup of boardrooms. Therefore, increase in gender composition of board contributes to an improvement in company's financial success. Recent analysis was carried out on documents and reports from 2015-2022, whereas previously mentioned study was mainly carried out on annual and website reports from 2008-2020.

Kithinji (2018) examined relationships between restructuring of banks and economic growth in Kenyan commercial banks and how sizes of banks affects it. Method of descriptive research was utilized. Based on census of all 44 CBK-licensed commercial banking institutions that were in operation in Kenya as of December 31, 2014, the research was conducted. For years 2002 through 2014, secondary data were collected from banking institutions yearly filings. To calculate the moderating effects of size on the connections amongst bank restructuring along with economic viability. Results indicated financial, operational, and asset restructuring had no substantial impacts on commercial establishment financial performances when used to moderate link between restructuring and financial performances utilizing bank size. Nevertheless, just capital restructuring had a significant interaction with bank size when bank restructuring parameters were linked with size of bank. According to report, regulatory reforms should be put into place to help banks grow, via acquisitions or within through increasing size of their assets. This study focused on board structure and financial performances, whereas the previous investigation was conducted on bank restructuring and performances.

Using static and dynamic panel data model, Mulma (2020) examines impacts of company sizes on financial performances of Kenyan deposit-taking microfinance institutions. Six institutions are subject of secondary data from 2011-2018. Results revealed total assets have beneficial impacts on financial performances on static model, but customer deposits have little impacts. The study finds that contemporaneous financial performances these institutions is significantly positively impacted by one year's delayed financial performances, according to dynamic model. The study focused on deposit taking microfinance institutions in Kenya, this investigation was placed on manufacturing and related companies in Kenya.

**Conceptual Framework**

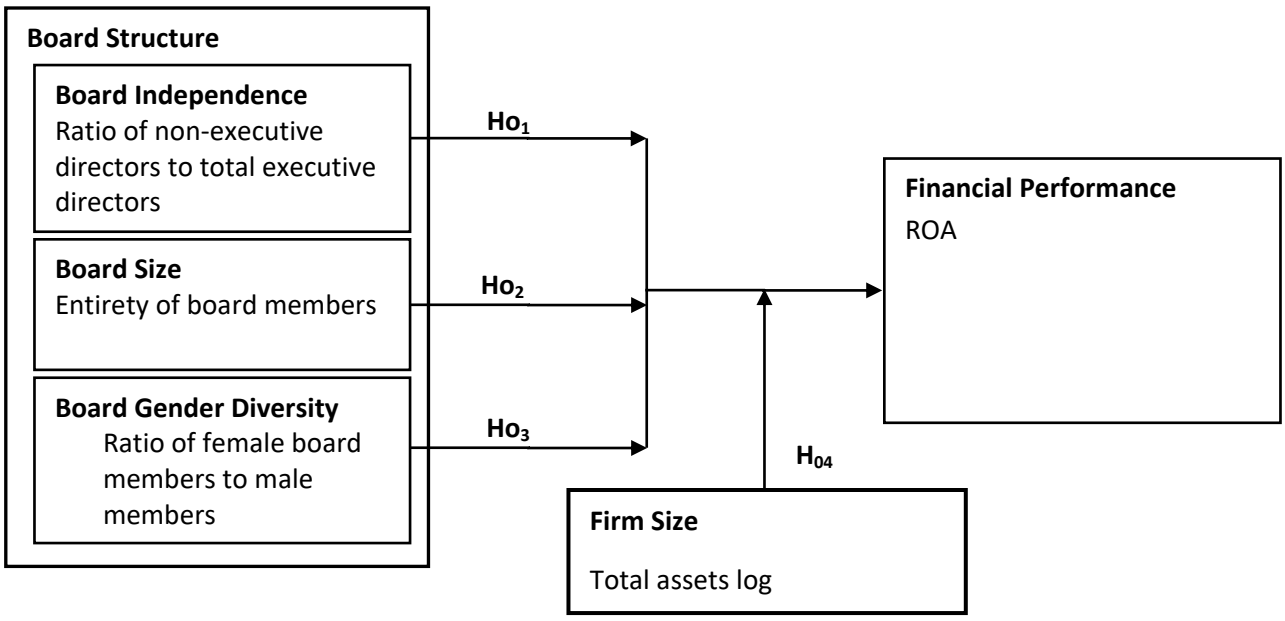


**Figure 1: Conceptual Framework**

**Source: Researcher (2023)**


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## METHODOLOGY

The survey adopted a design that is explanatory. According to Grey (2014), explanatory research attempted to clarify and account for quantitative information, seeks causative factors, and offers proof to endorse or disprove a clarification or forecasting. The study focused on Kenya's Nairobi Securities Exchange-listed manufacturing and allied firms. There were 8 traded manufacturing and allied firms. Therefore, this survey used 8 quoted Kenya's NSE manufacturing and allied firms and this included an 8-year time series assessment of financial data from January 1, 2015 to December 31, 2022. The study, used a census approach, focusing on all 8 Nairobi Securities Exchange-quoted manufacturing and allied firms that existed between 2015 and 2022.

Secondary data was sourced from listed manufacturing firms' audited and published annual reports from NSE as well as reports available on NSE website. Data was collected on eight (8) manufacturing and related firms located at NSE between 2015 and 2022. Information utilized was panel data, which was analyzed via STATA software using panel regression model. A descriptive analysis was applied to illustrate the data's broad and fundamental features. It calculated the dataset's dispersion in relation to its mean. The study hypotheses were tested using inferential analysis based on panel regression, which was utilized to test study hypotheses according to study's unique objectives. Testing was done using 5% significance threshold as guideline

## FINDINGS AND DISCUSSION

### Descriptive Analysis

With meticulous attention, this investigation delved into the studied variables, revealing their statistical essence: the central tendencies, the standard variation. The distribution and the variability of the factors are clearly documented. Table 1 unlocked the outcome as demonstrated.

**Table 1: Descriptive Statistics**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| Financial Performance | 68 | 1.353795 | 1.203648 | 0 | 4.696999 |
| Board Independence | 69 | 1.162609 | 5.356003 | .3 | 45 |
| Board Size | 66 | 8.333333 | 2.764241 | 5 | 15 |
| Board Gender Diversity | 72 | .9429894 | .8122199 | .3333333 | 3 |
| Firm Size | 68 | 7.316051 | 1.061257 | 5.009837 | 9.264646 |

**Source: Study Data (2023)**

An analysis of the survey data presented in Table 1 revealed that the financially performed score average for NSE-listed firms in the manufacturing and allied sector was 1.353795, with a standard deviation of 1.203648. This suggests a relatively low level of variance in financial performance among the sampled companies. Regarding board independence, the mean score was 1.162609, with a deviation of 5.356003 from standard. This value designated that, the companies possess average at least a moderate level of board independence. Notably, the observed values relating to board independence fall within the range of 0.3 (minimum value) and 45 (maximum value).

Descriptive statistics revealed an average board size of 8.333333, with a standard of 2.764241 deviation. This high standard deviation indicates a substantial spread of board size across the surveyed firms, ranging from 5 to 15. Similarly, board gender diversity exhibited a low level of variation, with an average of 0.9429894 and a deviation of 0.8122199 on standard measure. This suggests that board gender diversity differed to a little extent among the firms. The range of board gender diversity of the listed firms studied had score minimum of 0.3333333 and score maximum of 3. Firm size unfolded a mean score value of 7.316051 with a deviation from the standard value


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of 1.061257. The observations recorded for the firm size lie within the extremes of 5.009837 and 9.264646 noting that the size of the firm varies little across the firms.

**Diagnostic Tests**

A comprehensive series of diagnostic tests, encompassing homoscedasticity, autocorrelation, multicollinearity, stationarity, and specification, was employed to validate the assumptions underpinning the traditional linear regression model. Successfully passing these tests enhanced the model's robustness and reliability, bolstering confidence in the obtained results.

**Normality Test**

The Shapiro-Wilk test, operating under the null hypothesis of normality at 0.05 threshold significance, was employed to evaluate the normality of the study's data. The output of this assessment are presented in Table 2 for further analysis.

**Table 2: Normality Test Results**

| Variable | Obs | W | V | Z | Prob>z |
|---|---|---|---|---|---|
| Financial Performance | 68 | 0.89483 | 6.323 | 4.004 | 0.00003 |
| Board Independence | 69 | 0.11834 | 53.638 | 8.653 | 0.00000 |
| Board Size | 66 | 0.93699 | 3.698 | 2.834 | 0.00230 |
| Board Gender Diversity | 72 | 0.72303 | 17.443 | 6.227 | 0.00000 |
| Firm Size | 68 | 0.97092 | 1.749 | 1.213 | 0.11251 |

**Source: Study Data (2023)**

Departures from normality were observed in financial performance, board independence, size, and gender diversity (Table 2), contradicting the initial null hypothesis. However, firm size exhibited normal distribution (p-value > 0.05). Given the large sample size (>30 observations) and the central limit theorem, the non-normality in the other variables is deemed inconsequential for the overall analysis.

**Heteroskedasticity Test**

The investigation employed the Breusch-Pagan heteroscedasticity test to examine the stability of variance in the survey variables. This statistical test was utilized to ascertain if the variances of the research variables remained constant in the presence of observational errors. The results of this analysis can be found in Table 3.

**Table 3: Heteroscedasticity Test Results**

| Breusch-Pagan / Cook-Weisberg test for heteroskedasticity |
|---|
| Ho: Constant variance |
| Variables: fitted values of Financial Performance |
| chi2(1) = 8.61 |
| Prob > chi2 = 0.0033 |

**Source: Study Data (2023)**

The Breusch-Pagan test yielded an outcome of 8.61 and a probability value of 0.0033, both below the significance threshold of 0.05. This suggests the presence of heteroscedasticity, indicating that the error variance is not constant across the observations. The occurrence of lower p-value compared to the significant value led to the conduct of robust standard error regression analysis.

**Multicollinearity Test**

The survey employed the variance inflation factor (VIF) to evaluate the existence of multicollinearity among the explanatory variables in the model. This method was employed to guarantee that no variable demonstrates significant collinearity with others, which could potentially impact the accuracy of the model. A predefined threshold of 10 was utilized to

assess the VIF values and identify the extent of multicollinearity. The findings of this assessment are presented in Table 4.

**Table 4: Multicollinearity Test Results**

| Variable | VIF | 1/VIF |
|---|---|---|
| Board Independence | 1.02 | 0.981864 |
| Board Size | 1.02 | 0.975996 |
| Board Gender Diversity | 1.22 | 0.822949 |
| Firm Size | 1.22 | 0.820835 |
| Mean VIF | 1.12 | |

**Source: Study Data (2023)**

The assessment accessible in Table 4 revealed the absence of significant multicollinearity among the factors included in the model. All individual variables exhibited values below the accepted threshold of 10, and the VIF mean of 1.12 further confirmed this outcome, implying a low degree of collinearity within the estimated parameters of the model's factors.

**Autocorrelation Test**

The Breusch test was conducted to identify potential first-order autocorrelation within the model, operating under the null hypothesis of its absence at a significance level of 0.05. The outcomes of this analysis are existing in Table 5.

**Table 5: Autocorrelation Test Results**

| Breusch-Godfrey Serial Correlation LM Test: | | | |
|---|---|---|---|
| F-statistic | 37.69811 | Prob. F(2,59) | 0.0000 |
| Obs*R-squared | 37.02597 | Prob. Chi-Square(2) | 0.0000 |

**Source: Study Data (2023)**

Table 5 presents compelling evidence for the autocorrelation presence within the model. The F-statistic of 37.69811 and a p-value of 0.0000, both falling short of the established threshold of 0.05, led to the dismissal of the null proposition. This infers that the model is not free from serial correlation. This outcome was strengthened by the conduct of the robust standard errors estimation.

**Stationarity Test**

The Fisher-type Dickey-Fuller unit root test was engaged to assess the presence of unit roots in the variables. This test, based on the Dickey-Fuller test with the first difference operator, is vigorous with reverence to indeterminate autocorrelation and heteroscedasticity in the random walk process of the tested equation. The null assertion, claiming that at least all panels possessed unit root, was verified at threshold of 0.05 significance. The results of the unit root analysis are covered in Table 6.

**Table 6: Stationarity Test Results**

| Variable name | t-Statistic(adjusted) | P-value | Remark |
|---|---|---|---|
| ROA | 160.0158 | 0.0000 | Stationary |
| Board Independence | 49.5836 | 0.0000 | Stationary |
| Board Size | 24.0225 | 0.0455 | Stationary |
| Board Gender Diversity | 29.3777 | 0.0093 | Stationary |
| Firm Size | 122.8022 | 0.0000 | Stationary |

**Source: Study Data (2023)**

The analysis presented in Table 6 provides compelling evidence for the stationarity of all variables included in the model. The null claim, which posits the presence of a unit root within the panel data, is rejected at a significance level of 5%. This conclusion is supported by p-values less than 0.05 for each variable, noting that they are stationary and suitable for further analysis.

**Model Specification Test**

Acknowledging the debate surrounding fixed and random effects models in panel data analysis (Baltagi, 2005), this survey performed the Hausman test (Table 7) to choose the most fitting model for estimation. This test allows distinguishing between a fixed-effects model, focusing on specific panel characteristics, and a random-effects model, assuming random variations across panels. The chosen model was then utilized to estimate the associations concerning the factors of interest.

**Table 7: Hausman Test Results**

| | (b) Fixed | (B) Random | (b-B) Difference | Sqrt (diag(V_b-V_B)) S.E. |
|---|---|---|---|---|
| Board Independence | .006696 | .0111572 | -.0044612 | .0011398 |
| Board Size | -.2531789 | -.1427713 | 5.57e-06 | .0000276 |
| Board Gender Diversity | .0000988 | .0062159 | -.1104077 | .0604362 |
| Chi2(4) | 3.17 | | | |
| Prob>chi2 | 0.2053 | | | |

**Source: Study Data (2023)**

In accordance with Baltagi (2005) emphasis on model selection for panel data, the Hausman test was employed to compare the fixed and random-effects models. Examining Table 7 reveals a non-significant chi-square value (3.17) and a high p-value (0.2053), thereby upholding the null premise that the random-effects model is more suitable. Consequently, this model is chosen for further analysis, acknowledging the potential for random variations across panels.

**Regression Analysis**

To comprehensively evaluate board structure effect on financial performance, this survey applied the direct effect approach in a panel regression analysis. This investigation focused on Kenyan NSE's manufacturing and allied firms, with the attained results, accurately representing the impact, detailed in Table 8.

**Table 8: Direct Effect Model Results**

| Financial Performance | Coef. | Robust Std. Err. | z | P>z | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Board Independence | .0111572 | .0032391 | 3.44 | 0.001 | .0048086 | .0175058 |
| Board Size | -.1427713 | .0992633 | -1.44 | 0.150 | -.3373238 | .0517813 |
| Board Gender Diversity | .2250275 | .4263708 | 0.53 | 0.598 | -.6106439 | 1.060699 |
| _cons | 2.307852 | .9960981 | 2.32 | 0.021 | .3555359 | 4.260169 |
| R-Sq | 0.1020 | | | | | |
| Wald chi2(3) | 679.13 | | | | | |
| Prob > chi2 | 0.0000 | | | | | |

**Source: Study Data (2023)**

Utilizing Table 8 as evidence, this study paints a compelling visualization of board structure's influence significantly on performance financially within Kenya's listed manufacturing and allied firms on the


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NSE. The R-squared value of 0.1020, as cited specifies that board structure's components collectively explain 10.20% of financial performance variations, showcasing their substantial effect. Further corroboration comes from the significant Wald Chi-Square value (679.13) and its accompanying p-value (0.0000), highlighting the model's effectiveness in capturing the observed financial performance changes linked to board structure factors.

Within the context of Kenyan listed manufacturing and allied firms, this survey delved into the effect of board structure on financial performance. Drawing on empirical findings (Table 8), highlights that board independence exerts an influence of positivity, with a coefficient of 0.0111572 translating to a 0.0111572% increase in financial performance for every enhancement in board independence. This positive effect is statistically significant, as evidenced by the p-value of 0.001. Conversely, board size exhibits a negative effect, reflected by a coefficient of -0.1427713. This suggests a 0.1427713% decrease in financial performance for every 1% increase in board size. However, the p-value of 0.150 indicates that this negative effect is non-significant.

Unpacking the nexus of board structure and financial performance, the study (Table 8) uncovers a positive effect of board gender diversity on financial performance, with a coefficient of 0.2250275 translating to a 0.2250275% increase for every 1% rise in diversity of the board gender. However, the p-value of 0.598 casts doubt on the statistical significance of this effect, suggesting that board gender diversity, within the context of this study, does not significantly affect Kenya's NSE listed firms financial performance.

**Step One of Moderation Effect**

Recognizing the importance of establishing the validity of the moderating variable, this study following Whisman and McChelland (2005), incorporated the moderator as an explanatory factor in the first step. This crucial step assessed the variable's statistical significance and acted as a foundation for proceeding with the full moderation analysis. The detailed outcomes of this preliminary evaluation are displayed in Table 9.

**Table 9: Step One Results of Moderation Effect**

| Financial Performance | Coef. | Std. Err. | Z | P>z | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Board Structure | .037653 | .0546808 | 0.69 | 0.491 | -.0695195 | .1448254 |
| Firm Size | .3408195 | .1416929 | 2.41 | 0.016 | .0631066 | .6185325 |
| _cons | -1.314511 | 1.115229 | -1.18 | 0.239 | -3.500319 | .8712978 |
| R-Sq | 0.1099 | | | | | |
| Wald chi2(2) | 6.30 | | | | | |
| Prob > chi2 | 0.0429 | | | | | |

**Source: Study Data (2023)**

While the modest R-squared value of 0.1099 in Table 9 suggests that board structure and firm size explain only 10.99% of the observed financial performance variations in Kenyan listed manufacturing and allied firms, their combined effect remains statistically significant. This is evidenced by the Wald chi-square value of 6.30 and its accompanying p-value of 0.0429. This finding denotes that while these factors may not fully explain the changes in financial performance, their interplay does have a meaningful impact on these firms' financial performance.

Although the analysis revealed a positively effect of board structure on performance financially (coefficient = 0.037653), this effect was not statistically significant (p-value = 0.491). In contrast,


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firm size exhibited a statistically significant positive effect (coefficient = 0.3408195, p-value = 0.016), suggesting a 0.3408195% increase in financial performance for every 1% increase in firm size. Additionally, the model yielded an intercept value of -1.314511. These findings led to the subsequent investigation of potential moderating effects in step two of the analysis.

**Step Two of Moderation Effect**

Recognizing the crucial role of firm size in explaining financial performance, the study employed the second stage of the moderation analysis (Table 10). Guided by the outcomes, this stage aimed to unravel whether firm size, acting as the moderating variable, influences the linkage of board structure and performance financially. The detailed outputs of this exploration are presented in Table 10.

**Table 10: Step Two Results of Moderation Effect**

| Financial Performance | Coef. | Std. Err. | Z | P>z | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Board Structure | -.5810876 | 1.665945 | -0.35 | 0.727 | -3.84628 | 2.684105 |
| Firm Size | .129407 | .599169 | 0.22 | 0.829 | -1.044943 | 1.303757 |
| Board Structure*Firm Size | .0792138 | .2133183 | 0.37 | 0.710 | -.3388823 | .49731 |
| _cons | .3781826 | 4.783318 | 0.08 | 0.937 | -8.996948 | 9.753313 |
| R-Sq | 0.1154 | | | | | |
| Wald chi2(2) | 6.51 | | | | | |
| Prob > chi2 | 0.0892 | | | | | |

**Source: Study Data (2023)**

While Table 10 hints at a possible joint board structure effect, firm size, and their interaction on performance financially (R-squared = 0.1154), the analysis falls short of establishing statistical significance. The low R-squared value revealed that these factors only explain a modest 11.54% of the observed variations. This conclusion is further echoed by the non-significant Wald chi-square value of 6.51 and its accompanying p-value of 0.0892, suggesting that the combined effect of these factors is not meaningful in explaining the financially performed changes of the listed Kenyan firms.

While the interplay between board structure, firm size, and their interaction did not exert a significantly its effect on performance of Kenyan manufacturing and allied firms financially listed on the NSE (Table 10), introducing the moderator and its interaction with firm size revealed a more nuanced picture. Interestingly, board structure, despite its negative coefficient (-0.5810876), did not demonstrate a significant influence on performance financially (p-value = 0.727). This entails that a 1% increase in board structure, on average, would warrant a negligible 0.5810876% decline in performance financially, but this effect lacks statistical support.

Examining the role of firm size in a moderation analysis (Table 10), this study revealed an insignificant positive relationship with financial performance. With a coefficient of 0.129407 and a p-value of 0.829, the findings suggest that a 1% increase in firm size is associated with a negligible 0.129407% increase in financial performance, on average. Furthermore, the analysis investigated the potential moderating effect of the interface among board structure and firm size. However, the results indicate that this interaction also lacks statistical significance, as evident from the coefficient of 0.0792138 and p-value of 0.710. This suggests that even though a 1% surge in the interaction may lead to a 0.0792138% upsurge in financially firms performance with this effect not statistically reliable.

**Hypotheses Testing**

Driven by the specific research objectives, this section embarks on a rigorous exploration of four key hypotheses concerning board structure effect on financially performance in the context of Kenyan listed manufacturing and allied firms on the NSE. Each hypothesis dissects the individual and combined effects of board structure aspects such as independence, size, and gender diversity. Furthermore, the analysis ventures into the potential moderating effect of firm size on the connection amongst board structure and performance financially. Rigorously applying a 0.05 significance level, the empirical outcomes are meticulously scrutinized to either validate or disprove each hypothesis.

**Board Independence and Financial Performance of Listed Manufacturing and Allied Firms at NSE, Kenya**

This study investigated whether board independence influenced the performance of Kenyan listed manufacturing and allied NSE firms financially. The output contradicting the null proposition, revealed a significantly positive effect on the firms' performance financiall. This suggests that increased board independence, characterized by reduced external influence, empowers board members to make informed decisions that ultimately benefit the financial well-being of the firms. This study's outcome that board independence significantly affects financial performance aligns with prior research. Adika, Maru, and Mugambi (2018) similarly found a substantial positive impact, highlighting the link between independent boards and business success. Ayodeji (2019) further corroborates this by demonstrating the beneficial effects of board independence on financial stability in deposit-holding institutions. However, conflicting results also exist. Rashid (2018) found no significant influence of board independence on financial success, and Noja, Thalassinos, Cristea, and Grecu (2021) observed no visible impact on economic performance. These contrasting findings likely stem from the diverse contextual frameworks within which these studies were conducted.

**Board Size and Financial Performance of Listed Manufacturing and Allied Firms at NSE, Kenya**

Delving into the board size effect on performance of Kenyan manufacturing and allied firms financially listed on the NSE in Kenya, this study did not uncover a statistically significant effect. This outcome aligned with the null hypothesis, suggesting that within the framework of this study, the board size does not have an effect that is significant on the firms performance financially studied. This implies that other factors beyond board size may be playing a more prominent role in determining the performance of these firms financially. The insignificance of the size of the board effect on the performance financially could be linked to the slow decision that is attributed to the board members number when it comes to the financial performance of the firms in Kenya. This investigation's output of an effect that is non-significant of the board size on performance financially aligns with Khan (2019), who identified negative correlations between company health and the number of board members. However, it diverges from Olayiwola (2018), who observed substantial negative relationships between board size and NPM. These contrasting results likely emanated from the diverse contexts of the studies and the different performance measures employed.

**Board Gender Diversity and Financial Performance of Listed Manufacturing and Allied Firms at NSE, Kenya**

This research, examining the effect of board gender diversity on performance financially within Kenyan listed firms, did not unfold any statistically significant proof to discard the null claim. This suggests that, within this context, the percentage of women on boards does not wield influence of significant on the performance of the analyzed firms financially. While potential explanations for this finding require further

investigation, one possibility lies in the diverse backgrounds and perspectives that board members, regardless of gender, may bring to the table. These diverse viewpoints, while valuable in certain contexts, might not always align perfectly with the specific needs of the firm, potentially slowing down the process of generating optimal financial returns for Kenyan firms. This study's finding of no significant board gender diversity effect on financial performance departs from Aladejebi (2021) who suggested that increasing female board representation does not automatically lead to financial improvements. Similarly, the results diverge from Khaled and Adel (2022) who observed positive impacts of both gender and skill diversity on financial performance. However, some alignment exists with Habash and Abuzarour (2022) who found that increasing the proportion of women on boards can contribute to improved financial success. These discrepancies may have emerged from the differences in contextual factors, sample characteristics, and research methodologies employed across the studies.

**Firm Size moderating effect on the Nexus of Board Structure and Financial Performance of Listed Manufacturing and Allied Firms at NSE, Kenya**

This study investigated the potential effect moderation of firm size on the nexus amongst board structure and performance financially within Kenyan manufacturing and allied firms listed on the NSE. The results, aligned with the null hypothesis, revealed no significant moderating influence of firm size. This suggests that the association concerning board structure and financial performance is not significantly affected by the size of the firm in this context. This finding could be attributed to the highly competitive environment faced by these firms, which may necessitate effective practices regardless of size to achieve financial success. The outcome is consistent with Kithinji (2018) who indicated financial, operational, and asset restructuring had no substantial impacts on commercial establishment financial performances when used to moderate link between restructuring and financial performances utilizing bank size.

**SUMMARY**

Situated within the Nairobi Securities Exchange (NSE) context, this investigation delved into the effect of board structure on financially performed Kenyan manufacturing and allied firms listed. Specifically, it examined how board structure, such as independence, size, and gender diversity, influence the performance of these listed entities financially. Further enriching this exploration, the study considered the potential effect of moderation of firm size on the nexus of board structure with performance financially. To comprehensively unravel these dynamics, a robust analytical framework was constructed, drawing upon established theoretical perspectives like Resource Dependence, Stewardship, Dynamic Capability, and Agency cost theories. By employing a combination of descriptive statistics and panel regression techniques, this investigation provided a multifaceted and rigorous evaluation of its hypotheses, yielding valuable insights into the complex interplay between board structure, firm size, and financial performance in the Kenyan context.

Descriptive analysis identified board independence as the variable with the largest standard deviation, suggesting its substantial variability within the studied firms. Further, the regression analysis revealed a significantly positive connection concerning board independence and performance financially, implying that independent boards demonstrably contribute to the financial success of these Kenyan firms.

The descriptive analysis revealed a surprisingly uniform distribution of board sizes across the studied firms, with a notably high mean value. This observation was further complemented by the regression analysis, which yielded a statistically

insignificant inverse linkage concerning board size and performance financially. This suggests that, increasing board size is unlikely to have a significant impact, potentially even leading to a modest decline, in the financial performance of these Kenyan firms.

Descriptive statistics revealed that board gender diversity, amongst all studied variables, displayed the lowest degree of variation and a relatively low average value. This observation was further elaborated upon by the regression analysis, which yielded insignificantly positive nexus of board gender diversity with performance financially. This suggests that, increasing board gender diversity might be linked with an enhancement in the performance of these Kenyan firms financially, although the relationship lacks statistical significance.

Descriptive analysis revealed that firm size, amongst the studied variables, exhibited a slightly high average value with relatively low variance around the mean. Further, the regression analysis demonstrated a statistically insignificant moderating effect of firm size on the association concerning board structure and performance within Kenyan manufacturing and allied firms listed on the NSE financially. This suggests that the influence of board structure on financial performance remains largely independent of firm size within this context.

**CONCLUSION**

This study investigated the effect of board structure - consisting of board independence, size, and gender diversity - on the Kenyan financially performed manufacturing and allied firms on the NSE. While the outputs unfolded varying directional influences of these components, only board independence demonstrated a significantly effect on financially performed firms. The specific objective focused on board independence and confirmed its significant predictive power regarding performance financially. Therefore, the survey concludes that the independence of the board has significant effect in determining the changes that occurs in the Kenyan firms that financially performed.

Unraveling, an inverse and statistically insignificant board size effect was discovered on firms listed financially performance. This suggests that increasing the size of the board is unlikely to affect positively on financial outcomes, and may even hinder financial success. This observation warrants further investigation into the potential mechanisms through which board size might negatively influence financial performance, such as increased coordination complexity or inefficient decision-making processes in larger boards. Therefore, the size of the board does not significantly play any role in deciding the financially performed firms in Kenya.

The study explored the board gender diversity effect on financially performed Kenyan listed NSE firms. While the results hinted at a positive directional influence of board gender diversity, this association was not statistically significant. This suggests that, increasing the proportion of women on boards may not have a clear effect on the financial success of these firms. Although the diversity of the board gender has the potential of changing the performance financially of the firms, it remains insignificant.

The inquiry investigated the potential effect moderation of firm size on the nexus concerning board structure and performance financially within Kenyan listed NSE manufacturing and allied firms. Contrary to expectations, the results revealed a statistically insignificant moderating effect of firm size. This suggests that the influence of board structure on performance financially remains largely independent of firm size within this context. However, the insignificance could be attributed to industry-specific or firm-level factors that introduce non-linearity into the relationship, obscuring the potential moderating effect of firm size.

## RECOMMENDATIONS

The study's outcomes proved an effect that is significant of board independence with performance financially of the Kenyan firms listed on the NSE. Recognizing the critical role of independent boards in driving financial success, the survey recommends that the board independence should be strengthened to enhance the financial performance of the firms as this would allow for greater independence in decision of the board as it pertains to the financially performed studied firms in Kenya.

### Contribution to Knowledge

This survey significantly enriches the existing knowledge base on board structure and its effect on financial performance. Firstly, it offers novel research within the Kenyan context, specifically focusing on listed manufacturing and allied firms. By demonstrating the connections between various board structure elements and financial outcomes, it provides valuable empirical evidence for this understudied area. Furthermore, the findings contribute to the advancement of theory, policy, and practice by broadening the framework of understanding surrounding board structure and its key role in driving financial success within listed companies.

This research pioneered a novel conceptual framework connecting board structure components to the financial performance of listed firms. By providing robust empirical evidence on the relationships between these elements, it significantly advanced knowledge in this field. The study facilitated the rigorous formulation and testing of hypotheses concerning the impact of board structure on financial performance within the specific context of Kenyan manufacturing and allied companies. Furthermore, it culminated in the development of a pragmatic empirical model, grounded in the identified study variables, which elucidates the individual effects of explanatory factors on the explained factor (financial performance).

### Suggestions for Further Research

This investigation shed light on the complex dynamics between board structure and financial performance within the Kenyan context, specifically focusing on listed manufacturing and allied firms on the NSE. To further enrich understanding of this crucial topic, future research could explore several promising avenues. Firstly, investigating this relationship for other listed sectors, such as agriculture and commercial and service firms, could offer valuable comparative insights. Secondly, delving deeper into the reasons behind the seemingly insignificant effects of board size and board gender diversity on financial performance presents a compelling research opportunity. This deeper understanding could pave the way for optimizing board composition across diverse sectors and maximizing its impact on financial success. More variables could be added to other investigations to determine their effect on financial performance of the manufacturing and allied firms listed in Kenya.

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