

**EFFECT OF LEAN MANAGEMENT PRACTICES ON THE SUSTAINABLE
PERFORMANCES OF SMALL MEDIUM ENTERPRISES IN LAGOS
STATE, NIGERIA.**

BY

MARTINS FAITH OLUWATUNPAMILERINAYO

18020101028

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DECLARATION

I hereby declare that this project report written under the supervision of Mrs. Joshua Abimbola is a product of my own research work. Information and data obtained from various sources have been rightly acknowledged in the text and list of references provided. This research project report has not been previously presented anywhere for award of any degree or certificate.

MARTINS, FAITH .O

DATE

CERTIFICATION

I certify that this work was carried out by MARTINS, Faith Oluwatunpamilerinayo (18020101028) at the Department of Accounting and Finance, Mountain Top University, Ogun State, Nigeria.

(Signature and Date)

Mrs. Joshua Abimbola
Supervisor

(Signature and Date)

Dr. Omokehinde
Head of Department

DEDICATION

This project is dedicated to God Almighty, my greatest defender.

ACKNOWLEDGEMENT

I give God the adoration and praise for the completion of my project work. I am forever grateful to God for giving me the ability, strength ,grace, wisdom and intellect to do this research work.

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ABSTRACT

Purpose: The purpose of the research is to investigate the effect of lean management practices on the sustainable performances of small medium enterprises in Lagos state, Nigeria.

Design/methodology/approach- The survey was used as the main method of data collection. Survey data were collected from 72 respondents from various small medium enterprises operating in Lagos State. The data gathered were tested through the use of both descriptive and inferential method analysis.

Findings: The findings revealed that lean management practices significantly impact sustainability performance of SMEs. This provides empirical support for the contention that the adoption of lean management improves or increases the levels of sustainability performance.

Recommendation: There is an increasing interest in lean from SMEs in less developed countries even though its implementation is still at an early stage. Thus, further extensive investigation is largely recommended to promote the use of lean among SMEs in these countries.

Originality/value – The study empirically investigates the impact of lean management practices on the sustainable performance of SMEs in Lagos State, Nigeria.

Keywords: Economic sustainability performance, environmental sustainability performance, lean, social sustainability performance, triple bottom line

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The majority of a country's gross domestic product (GDP) is generated by its small and medium-sized businesses (SMEs) (Gross domestic product). Growing to meet the needs of their customers, small and medium-sized enterprises (SMEs) are engaging in intense competition with one another. Due to their reduced flexibility and agility, even some LEs have found it difficult to keep up with the demands of their clientele (Yadav, Jain, Mittal, Panwar, and Sharma, 2019; Rai, 2019). Many people are working to better the sustainability records of small and medium-sized enterprises. It's possible that this will cause them to advance their business and increase the level of competition in their industry. Since SMEs lack the knowledge or understanding necessary to appreciate the benefits of using lean manufacturing, lean manufacturing systems are essential in boosting operational efficiency by reducing waste. To improve SMEs' efficiency and effectiveness, non-value-added tasks must be removed from the system (Ahmad, Lee, Ramlan, Husin, & Abdul Rahim, 2017).

The lean concept is still in its early stages of evolution. The eight wastes are considered extremely dangerous by the group. The lean practitioner identifies the causes of waste, including excess production, defects, over-processing, excess transportation, underutilized labor, over-movement, waiting, and excessive inventory. Sustainable development is essential if we are to improve our living conditions and meet the needs of the future. As the SMEs establish their production systems, the benefits of a better environment, the maximum return on investment, and providing a space to develop and gain expertise are emphasized. Without making massive investments, SMEs can achieve the three pillars of sustainability (social, environmental, and economic) by focusing on being "lean" and "green" and improving their professional management skills. To be truly effective, lean operations must incorporate sustainability into their overall game plan (Sajan, Shalij, Ramesh, & Augustine, 2017).

Worldwide manufacturers are getting ready to assess how well they've been doing in terms of sustainability, a move that should please a wide range of interested parties (Ganapathy, Natarajan, Gunasekaran, and Subramanian, 2014). Stakeholder theory argues that "firms should be used as platforms for aligning stakeholder interests rather

than merely maximizing shareholder income" (Freeman, 1984). Sustainability strategies are shaped in part by stakeholder feedback and the actions of both stakeholders and businesses. Most forward-thinking companies have recently shifted their focus to make sustainability a primary benchmark for innovation (Wang, Subramanian, Gunasekaran, Abdulrahman, and Liu, 2015). So, there are now established business principles for bettering the environmental friendliness of manufacturing procedures (Cherrafi, Elfezazi, Chiarini, Mokhlis, and Benhida, 2016). Elkington (1997; Mitra and Datta, 2014) and others argue that "triple bottom line" (3BL) thinking, which considers both financial and social impacts, is at the heart of sustainability. There is a conflict of interest among SMEs because the entities of 3BL put financial gain ahead of people's and the planet's welfare (Wong and Wong, 2014). This makes it challenging for small and medium-sized enterprises (SMEs) to achieve both short-term operational and financial success and long-term sustainable performance. For long-term success, small and medium-sized businesses have started adopting some of the big factories' manufacturing best practices (Singh, Garg, and Deshmukh, 2008; Panizzolo, Garengo, Sharma, and Gore, 2012). These shifts have allowed SMEs to become the driving force behind economic expansion and the primary tool for fostering the long-term, sustainable growth of economies (Klewitz and Hansen, 2014; Singh, Garg, and Deshmukh, 2008; Hu, Mason, Williams, and Found, 2015; Wang, 2016).

Companies in both the manufacturing and service sectors frequently use lean management techniques to cut down on waste across the board. A growing number of people are concerned about environmental preservation and are learning about lean management principles (LMP) in recent years. Since the central principle of lean management is the reduction of waste through resource efficiency, it is both financially beneficial and environmentally responsible (Dey, Petridis, Malesios, Nixon and Gho, 2018; Dey, Malesios, Abdelaziz, Chowdhury, 2019). However, some initiatives for environmental and social sustainability come at a high price (e.g. adopting an environmental management system such as ISO 14000, specific measures for reducing energy consumption, employee well-being). Consideration is given to spending money on CSR initiatives as well (Tang and Tang, 2018; Walker, Zhang and Ni, 2019).

Conceptually, LMP and CSR approaches are quite similar; they share an emphasis on economics. Researchers have found a correlation between LMP and long-term economic viability (Martinez-Jurado and Moyono-Fuentes, 2014). LMP encourages and helps numerous manufacturing companies improve their environmental performance through the use of green manufacturing techniques. There is evidence that LMP aids environmental sustainability (Moreira, Alves, & Sousa, 2010; Vinodh, Arvind, & Somanaathan, 2011), but the results are still mixed as both positive and negative associations have been discovered (King and Lenox, 2001; Rothenberg, Pil, and Maxwell, 2001). In addition, data on how LMP affects social and environmental performance is inconsistent. To further improve efficiency, quality, cost, and responsiveness, LMP has been applied to the distribution networks of SMEs.

1.2 Research problem

The connection between lean and sustainability has been studied by a number of academics (Rothenberg, Pil and Maxwell, 2001; King and Lenox, 2001; Kainuma and Tawara, 2006; Xavier Alves and Murta Alves, 2015; Piercy and Rich, 2015). Studies in this area have primarily concentrated on large corporations because their effects are more consequential than those of small and medium-sized enterprises (SMEs) (Bhasin, 2012; Shah and Ward, 2003; Piercy and Rich, 2015). Furthermore, compared to large corporations, SMEs are often at a disadvantage when it comes to knowledge of and access to the lean manufacturing system (Panizzolo, 2012; Upadhye et al., 2013). In addition, SMEs face challenges when trying to arrange various resources, which can lead to operating inefficiently and a lack of awareness of legal and social obligations (Theyal and Hofmann, 2012). All of these factors have a negative effect on SMEs, and as a result, sustainable development business strategies are given less consideration in the areas where they operate.

Sustainable development strategies tailored to the needs of small and medium-sized enterprises (SMEs) are essential for breaking through this barrier (Loucks, 2010). Previous research on small and medium-sized enterprises (SMEs) has disentangled the effects of lean management practices on operational, financial, and environmental performances (Filho, 2016; Bonavia and Marin, 2006; Upadhye, 2013; Rahman, 2010; Panizzolo, 2012; Khanchanapong, 2014; Zhou, 2016). However, none of these studies have systematically examined how LMPs affect various aspects of sustainability

performance. There is also a dearth of research into LMPs and their impact on sustainability outcomes. When it comes to small and medium-sized enterprises (SMEs), the impact of LMPs on sustainability performances, which can be broken down into economic, environmental, and social categories, has been unclear up until this point. This paper is novel because it examines the impact of lean practices on sustainability performances in small and medium-sized manufacturing enterprises (SMEs) in Nigeria.

1.3 Objectives of the study

This paper aims to assess the impact of lean manufacturing on the environmental, social, and economic sustainability of small and medium-sized manufacturing businesses in Lagos State, Nigeria.

The objectives are:

1. To evaluate the impact between lean management practices and social sustainability performance in SME in Nigeria.
2. To determine the impact between lean management practices and economic sustainability performance in SME in Nigeria.
3. To examine the impact between lean management practices and environmental sustainability performance in SME in Nigeria.

1.4 Research Questions

The research bridges the knowledge gap by answering the following questions;

1. What is the impact of lean management practices on social sustainability performance of SMEs in Nigeria?
2. To what extent is the impact of lean management practices on economic sustainability performance of SMEs in Nigeria?
3. What is the impact of lean management practices on environmental sustainability performance of SMEs in Nigeria?

1.5 Research Hypotheses

H₀₁: there is no significant impact of lean management practices on social sustainability performance of SMEs in Nigeria.

H₀₂: there is no significant impact of lean management practices on economic sustainability performance of SMEs in Nigeria.

H₀₃: there is no significant impact of lean management practices on environmental sustainability performance of SMEs in Nigeria.

1.6 Significance of the study

Academics and students of human resource management will find this study useful because it provides both a theoretical framework and empirical data on how lean management methods affect the performance of manufacturing firms. The research will also help Nigerian manufacturers improve their production by reducing waste and increasing employee dedication in the workplace. SME owners will benefit from the study's guidance on making the most of the SME sector's sustainable performance.

Businesses that want to improve their logistics can use this report as a guide. Public and private sector organizations will be reminded that logistics starts with material suppliers and finishes with end users. Students and young researchers in related fields will find the study to be an invaluable resource. It's possible that the findings will also form the basis for additional studies.

1.7 Scope of the Study

The impact of lean manufacturing practices on the long-term success of medium- and small-sized businesses is the focus of this study. Lean manufacturing practices, SMEs, environmental sustainability performance, social sustainability performance, and economic sustainability performance are all the subjects of this research. Examines how small and medium-sized enterprises (SMEs) fare when it comes to sustainability as a result of adopting lean management practices. Descriptive and inferential statistics were used as the research methodology. The city of Lagos, Nigeria, is where the research is being conducted.

1.8 Organization of the study

The first chapter of the study provides an overview of the subject. Literature reviews (conceptual, theoretical, and empirical) are discussed in Chapter 2. Methodology, the third chapter, delves into how the research questions and hypotheses will be answered. In the fourth chapter, statistical methods were used to analyze the data collected in the previous chapter. The findings were analyzed, and conclusions were drawn, in the final section of the paper.

1.9 Definition of Terms

Economic Sustainability: Sustainable economic growth is growth that can be maintained over time without having a negative impact on the community's social fabric, natural environment, or cultural traditions.

Environmental Sustainability: Making decisions today that will leave future generations with the same or better quality of life is a key component of environmental sustainability, as defined by the United Nations Environment Programme. The goal of environmental sustainability is to enhance human well-being without jeopardizing the health of Earth's ecological systems.

Lean: Lean refers to an integrated socio-technical system whose primary goal is the removal of waste through the simultaneous reduction or elimination of variability at the supplier, customer, and internal levels.

Lean Manufacturing: Lean manufacturing is a method of increasing efficiency in production by decreasing unnecessary steps and maximizing the use of resources.

Lean Manufacturing Techniques: The processes and modifications used in lean production are those that help reduce waste and boost output.

SME(small medium enterprises): Small and medium-sized businesses (SMEs) are organizations that are involved in some aspect of commercial activity. Companies with fewer than 500 full-time employees are classified as small or medium-sized businesses. The World Bank, the EU, the UN, and the WTO are just some of the international bodies that use the abbreviation "SME" to refer to small and medium-sized enterprises.

Social Sustainability: Business's positive and negative effects on society must be measured and managed for social sustainability to be achieved. How well a business communicates with and responds to its various constituencies is of paramount importance.

Sustainability: In order to have a positive effect on society, the physical environment, and the financial performance of a company, it is necessary to manage, design, and improve these processes.

Sustainability Performance: "Sustainability Performance" is defined as "the capacity to make efficient use of natural resources in production, by designing products and solutions that, thanks to the development of new technology, regulatory measures, and consistent social behaviors, can satisfy economic, environmental, and social objectives, thereby protecting the environment and continuing to improve the quality of human life."

Triple Bottom Line: The Triple Bottom Line is the foundation of sustainable development and a measure of an organization's impact on the world.

CHAPTER TWO LITERATURE REVIEW

2.0 INTRODUCTION

The purpose of this chapter is to provide a conceptual, theoretical, and empirical summary of the many published works that have examined the relationship between lean practices and the sustainability records of small and medium-sized enterprises (SMEs). Theories that help explain the findings are discussed. Each section will do its best to answer the research questions and accomplish the study's overarching goals. In any case, the research proposal would only include a synopsis of this chapter.

2.1 CONCEPTUAL FRAMEWORK

Miles and Huberman (1994:18) state that a conceptual framework is "something that explains graphically or narratively the main things to be studied—the key factors, constructs, variables, and the presumed relationships among them." The conceptual framework for this research is based on the theories, models, and concepts of lean, small and medium-sized enterprise (SME), and sustainability performance.

2.1.1 Lean

Toyota's Taiichi Ohno first introduced the concept of "lean thinking" when he was developing the TPS (Toyota Production System) to help the company deal with its limited resources. There are a wide variety of context-specific definitions of "lean." The concept of lean is still evolving, which is why no adequate definition yet exists (Haddad and Otayek, 2018). The goal of the lean concept is to produce and distribute products and services in the most efficient and economical ways possible. Also, it hasn't made it to developing nations, where people are generally resistant to new ideas and instead cling to more archaic methods of doing business (Douglas, Muturi, Douglas, and Ochieng, 2017).

Finally, lean emphasizes long-term viability to help businesses gain an edge in the market. By coordinating work flows and allocating resources, we can better meet the needs and demands of our clients. Examining production procedures in light of scarce resources makes this a real possibility (Ulewicz and Kuceba, 2016). Numerous studies have examined the value of lean in a variety of settings, including the manufacturing sector and the information technology sector. The value-adding effects of lean on a manufacturing company were the subject of one such study. Positive findings from R&D and the introduction of Lean manufacturing to the company, the study found, could boost its value (Zhu and Lin, 2017). When it comes to Lean, another study looked at how businesses were doing. The findings indicated that lean and green

implementation were highly rated, suggesting their potential utility in strategic planning (Duarte and Machado, 2017). The principle of continuous improvements (Kaizen) is at the heart of the lean implementation process, which is an ongoing endeavor. Its novel function makes it challenging to replicate.

Because its foundation rests on reducing waste and optimizing available resources, lean can be measured in terms of its value to the company. As product lifespans shorten, profits decrease, and global competition heats up, the belief that businesses must function using minimal resources while producing minimal waste is becoming increasingly important. The lean philosophy cannot be a replacement for traditional management techniques in today's cutthroat business climate (Jakhar, Rathore, and Mangal, 2018). To us, lean practices have everything a resource needs to have in order to be considered a core competency for a business, so we classify them as such (Lin and Wu, 2014).

The resource-based view (RBV) of the firm provides the theoretical foundation for the inclusion of lean practices as a variable in this study. According to the RBV, in order for a company to maintain a competitive advantage over the long term, its resources must meet four criteria: they must be valuable, rare, inimitable, and non-substitutable.

2.1.1.1 LEAN PRACTICES

Lean manufacturing emphasizes the elimination of wasteful processes and the minimization of variation (Shah and Ward, 2003). Waste in the transformation process can be minimized with the help of lean methods like pull-production systems, variability reduction, continuous improvement (kaizen), total quality management, and total people involvement (Shah and Ward, 2003).

Producing only what is needed from a customer, or "pull," helps to minimize unused materials (Chavez, Yu, Jajja, Lecuna, and Fynes, 2020; Shah and Ward, 2007). Statistical methods, shorter setup times, and comprehensive preventative maintenance are all used to lessen process variability (Karlsson and hlström, 1996). The goal of quality management is continuous improvement and prevention of defects (Chavez, 2020; Womack and Jones, 1994). Finally, the glue that holds Lean Practices together is the active participation of all employees. This involves open lines of communication and teamwork, a focus on employee motivation and empowerment, and the ability to quickly and accurately identify and address any issues that arise (Azadegan, Arash,

Pankaj, Patel, Abouzar Zangouinezhad, and Kevin Linderman, 2013; Martinez-Jurado and Moyano-Fuentes, 2014).

2.1.1.2 Lean Accounting Principles, Practices, and Tools

The five guiding principles of lean accounting that outline its practices and methods are as follows.

PRINCIPLES	PPRACTICES	TOOLS OF LEAN ACCOUNTING
(A) Simple business accounting	Continuous waste elimination (transactions processes and reports).	(a) Value stream mapping; current & future state (b) Kaizen continuous improvement (c) PDCA problem solving
(B) lean Accounting for change	Management control & continuous improvement	(a) Performance measurement chart linking metrics to process, value streams, plant reporting business strategy, target costs, and lean improvement (b) Value stream performance boards containing breakthrough and continuous improvement projects (c) Box scores showing value stream performance
	Cost management	(a) Value stream costing (b) Value stream income statements
	Customer & supplier value and cost mgt	(a) Target costing

(C) Clear & timely Information provision	Financial reporting	(a) Plain English” financial statements (b) Simple, largely cash-based accounting
	Visual reporting of financial & non-financial performance measurements	(a) Primary reporting using visual performance boards; divisions, plant, value stream, cell/process in production, product design, sales/marketing, administration, etc.
	Decision-making	(a) Incremental cost & profitability analysis using value stream costing and box scores
(D) Planning from a lean perspective	Planning & budgeting	(a) Ho shin policy deployment (b) Sales, operations, & financial planning (SOFP)
	Impact of lean improvement	(a) Value stream cost and capacity analysis (b) Current state & future state value stream maps (c) Box scores showing operational, financial, and capacity changes from lean improvement. Plan for financial benefit from the lean changes
	Capital planning	(a) Incremental impact of capital expenditure on value stream box-score. Often used with 3P approaches
	Invest in people	(a) Performance

		measurements tracking continuous improvement participation, employee satisfaction, & cross-training (b) Profit sharing
(E) Strengthen Internal accounting control	Internal control system based on lean operational controls	(a) Transaction elimination matrix (b) Process maps showing controls and SOX risks
	Inventory valuation	(a) Simple methods of inventory valuation without the requirement for perpetual inventory records and product costs.

Sources: AME, 2005

2.1.2 SMALL MEDIUM ENTERPRISES

Knowing the nature and type of business you are dealing with is of utmost importance while formulating plans and policies for any organization. Companies everywhere fall into one of several broad size categories defined by factors like revenue generated, number of employees, total assets, and production capacity. Large corporations are classified as one category and small businesses as another. Though all businesses in the second category have the same social status according to legal standards followed in most countries around the world, their economic levels are very different.

It is possible to further categorize such businesses as SMEs based on their sizes, which allows for more precise development planning. Research into the nature and operation of businesses has been ongoing in recent years, and as a result, the broad classification of enterprises has been extended to include micro enterprises along with SMEs to form micro, small and medium enterprises (MSMEs). Small and medium-sized enterprises (SMEs) have been categorized by various regional authorities according to important criteria like plant size, capacity, workforce size, investment, and returns. These factors all play a significant role in determining which facilities and services a business will

have access to. Historical research on small and medium-sized enterprises (SMEs) established these criteria as the best definition available. According to EU business classifications (Classen, 2014), SMEs are defined by metrics like employee count and annual revenue (EUR).

Small and medium-sized enterprises (SMEs) in Nigeria are those with between 11 and 100 workers or an investment of less than 50 million Nigerian naira (including working capital but excluding land cost), as defined by Alarape (2007). According to Shehab (2008), small and medium-sized Libyan businesses (SMEs) have between 50 and 250 employees, generate between 2 and 12 million Libyan dinar (LYD) in sales annually, and report a balance sheet total of between 1 and 8 MLYD. According to Du Toit (2009), small and medium-sized businesses in South Africa are those that meet two or more of the following criteria: they have fewer than 200 employees; their annual revenue is less than 64 million South African rand (ZAR); their capital assets are less than 10 million ZAR; and the owners are actively involved in the management of the company.

Malaysians use a variety of terms to describe small and medium-sized enterprises. According to qoahim (2014), which uses SMEs as its source, micro businesses are defined as having fewer than five employees in the manufacturing sector, which contributes less than 250,000 Malaysian ringgit (MYR), and in the services sector, which contributes less than MYR 200,000 to the national economy. Similarly, small businesses are defined as those with between five and fifty employees in the manufacturing sector, contributing between two hundred and fifty thousand and ten million Malaysian ringgit (MYR), or MYR 250,000, and between five and nineteen employees in the service sector, contributing between two hundred and ten thousand and one million Malaysian ringgit (MYR), or MYR 200,000. Medium-sized companies are those with between 51 and 150 workers and annual revenues between MYR 10 million and MYR 25 million. Similarly, service-oriented companies with between 20 and 50 workers generate between MYR 1 million and MYR 5 million. Small and medium-sized enterprises (SMEs) are defined by Olusegun (2012) as companies that engage in commercial activity of any kind. According to the author, small and medium-sized enterprises (SMEs) are defined differently depending on location, sector, size of workforce, and total assets.

U.S. small and medium-sized enterprises (SMEs) are defined by Grover and Suominen (2014) as having 500 or fewer workers. The small and medium-sized enterprises that make up 99.7% of all businesses in the United States are its lifeblood. It is estimated

that there are roughly 28 million active SMEs in the United States, and these SMEs are responsible for 34% of US export revenues. Small and medium-sized enterprises (SMEs) account for nearly all of the United States' private businesses, and they employ more than half of the private sector workforce (Parnell, 2015). About 65% of all private sector job growth is attributable to these firms. A total of about 543,000 new businesses are formed every month in the United States. In the United States, only 25% of small and medium-sized enterprises (SMEs) survive for more than 15 years, and nearly 70% of SMEs don't make it past the second year (Williams 2014).

Canadian small and medium-sized enterprises (SMEs) account for 54% of the country's private sector employment. In Canada, 54.3 percent of all business output is created by SMEs (Sui and Baum 2014). Approximately 55 percent of all SMEs in Canada have fewer than four employees, and 98.1 percent of all Canadian SMEs have fewer than 100 employees. Any company with annual sales of less than 20 million Australian dollars is considered a small or medium enterprise (SME) in Australia (Chong 2014). More than 96% of all businesses in Australia are considered SMEs, and they account for nearly 33% of Australia's GDP (GDP). SMBs account for the vast majority (about 63 percent) of Australia's private sector workforce. Small and medium-sized enterprises (SMEs) in Australia account for 9 percent of total annual economic output. SMEs are defined as companies in South Africa that have fewer than 200 employees. They account for roughly 60% of the labor force and make up 91% of the formalized economy. Nearly a third of global GDP is generated by their economy.

2.1.3 SME Contribution to world economy

Ninety percent of all businesses are considered SMEs, and between 50 and 60 percent of all jobs are held by SMEs (Jenkins 2004; Sannajust 2014). Poland's small and medium-sized enterprises (SMEs) are crucial to the country's economic and social growth, as they account for over half of the country's GDP and employ over 6 million people. In Poland, 99.8 percent of all businesses are small and medium-sized enterprises (Walczak and Voss 2013). The majority (70.7%) of Dutch businesses are considered to be micro-sized (10-49 employees), while the next largest group (29.3%) are considered to be medium-sized (50-199 employees) (50–250 employees) (Kraus, 2012)

Small businesses made up 48% (12.1 million) of the private sector in the UK at the beginning of 2014. Small businesses generate £1.2 trillion annually, or 33 percent of all revenue in the private sector. There were 31,000 medium-sized businesses in

existence at the start of 2014. These companies generated £480 billion in annual revenue and accounted for the employment of 3.1 million people. Sixty percent of the United Kingdom's private sector is made up of the 5.2 million SMEs (15.2 million). Four Lean Six Sigma in Small and Medium-Sized Businesses Their combined annual sales of £1.6 trillion accounts for 47% of the private sector's total revenue (White 2014). In the European Union, 99% of the estimated 23 million businesses fall under the category of "SMEs," making them an important economic factor.

SMBs in Europe are responsible for 65 million jobs. Each and every one of them is a small business, with 96.8% of the 23 million companies having fewer than 10 employees and only 7.5% having 250 or more (Wach, 2014). About two-thirds of all private sector jobs in Europe are held by small and medium-sized enterprises (SMEs), which also account for 59% of all value creation in the region. China's 50 million SMEs make it the world leader in terms of total number. Runner-up is India, home to 48 million small and medium-sized enterprises. Small and medium-sized enterprises (SMEs) in India account for about 40% of total employment, 45% of total manufacturing output, and 17% of the country's gross domestic product (Malini, 2013). The contributions of SMEs to the Malaysian economy are crucial. The vast majority (96.1%) of Malaysia's businesses are small and medium-sized enterprises (SMEs), which play a crucial role in bringing technological advances to various sectors (Hilmi and Ramayah, 2009). The small and medium-sized enterprises (SMEs) in the United States are the backbone of the economy. SMBs account for nearly all businesses in the United States, making up 99 percent of all businesses there. Sixty-five percent of the private sector's new jobs are created by SMEs. They make up 98 percent of all US exports and account for more than half of US non-farm GDP. 34% of all US export revenue is generated by SMEs (Grover and Suominen 2014).

Mexico's federal government has invested more in small and medium-sized enterprises (SMEs) and entrepreneurial initiatives over the past 12 years. Because of this change, Mexico's business climate for SMEs and startups has greatly improved. The small and medium-sized enterprise (SME) sector in Mexico is growing. They're responsible for 99.8 percent of businesses and 72.3 percent of jobs. In Mexico, 96.1% of the country's businesses are classified as micro-enterprises (those employing ten workers or fewer) (OECD 2013). There are currently about 6.3 million SMEs in Brazil, and they generate about US \$39 million in annual revenue. Brazil's small and medium-sized enterprises

(SMEs) generate 20% of the country's GDP and 47,000 new jobs per year, or 52% of the country's total formal employment (Cravo, 2012).

The small and medium-sized enterprises (SMEs) in Indonesia account for more than 90% of all non-farm businesses and are the primary employer group (Tambunan 2007). Small and medium-sized enterprises (SMEs) in Russia are essential to the country's economy, society, growth, and technological innovation. Six per thousand people in Russia, 45 in the EU, 49.6 in Japan, and 74.2 in the US are employed by small and medium-sized enterprises (Zhuplev, 2009). Nearly half of India's industrial output and 45 percent of the country's total exports come from its nearly 36 million units of SMEs (Nayak, 2014). Currently accounting for about 8% of India's GDP, India's burgeoning small and medium-sized enterprise sector is poised to play a pivotal role in the The government of India enacted the Micro, Small, and Medium Enterprises Development Act to improve the competitiveness of small and medium-sized businesses by addressing policy issues that affect their financial performance. India is home to between 7.8 and 13 million small and medium-sized businesses, as estimated by the new Micro, Small, and Medium-Sized Enterprises Development Act of 2006. More than 80% of India's GDP is contributed by small and medium-sized businesses, and 90% of all businesses in the country fall into this category.

2.1.4 Characteristics of SME

When determining what constitutes a small and medium-sized enterprise (SME), factors such as the number of employees, the value of assets, and annual revenue are used. Small and medium-sized enterprises (SMEs) are the backbone of economic expansion, helping to keep markets dynamic and competitive while also creating and sustaining countless new jobs (Beck and Demircuc-Kunt 2006). A small and medium-sized enterprise (SME) differs from a large enterprise in the way it is conceived of and managed. In contrast to the matrix structure and siloed business units common at large corporations, the flatter hierarchies and unified business functions of SMEs are more the norm at medium and small businesses. The two types of organizations have distinct ownership structures (Hoffmann and Schlosser 2001). Small and medium-sized businesses (SMEs) must adapt the direction of their operations to reflect the ebb and flow of the industries they serve. The functions of technology change over time as well (Hallberg 2000).

2.1.4.1 Low start-up costs

Small businesses typically have lower startup costs than larger corporations, though this does vary depending on industry and product (Blair and Marcum 2015). This is in stark contrast to the massive initial capital outlay needed by more established companies.

2.1.4.2 Portability

Typically, a small company's operations can be easily moved to new locations and packed up again (Simatele 2014). Smaller establishments need payment processing options, too, and this includes things like credit card terminals.

2.1.4.3 Leadership

Ownership, management, liability, and risk in a small and medium-sized enterprise (SME) are often consolidated under a single individual (Aslan et al. 2011). When compared to larger organizations, where leadership is shared, dispersed, and institutionalized, SMEs have a flat organizational structure and limited resources, so the owner/leader is responsible for the ownership and management of day-to-day operational activities.

2.1.4.4 Management structure

Most small businesses are managed by the owner(s) or manager(s) exercising close, hands-on supervision, as opposed to the more common practice of delegating or otherwise centralizing authority in larger corporations. In order to comprehend the connection between small-business ownership and decision-making, managerial styles, organizational structure and culture, and the pattern of business development, it is necessary to have a firm grasp on how small businesses are managed (Walczak 2005). Small and medium-sized enterprises (SMEs) are characterized by their "flat organizational structure," which consists of fewer levels of management and fewer departmental interfaces, and which promotes a flexible work environment that speeds up the flow of information, decisions, and actions.

2.1.4.5 Planning

Innovation, flexibility, and responsiveness may be crucial to the survival of SMEs in today's uncertain and dynamic business climate (Wang et al. 2007). Multiple studies

have emphasized the importance of strategic planning and development for small and medium-sized enterprises (SMEs) (Dibrell et al. 2014). Just like in many large corporations, the strategic process is streamlined in such businesses.

In contrast to large corporations, where formal systems and procedures are well-established and widely used, small businesses tend to have either none at all or only the most rudimentary in place (Terziovski, 2010). Small and medium-sized enterprises (SMEs) can be agile and responsive to the needs of their customers because of the simplicity of their processes.

2.1.4.6 Systems and procedures

Small businesses typically hire a small number of workers. Some businesses may only need one or two workers during peak times (Thomas and Webb 2003). In order to keep costs down, business owners typically perform all necessary tasks themselves at their small enterprises. The smaller workforce in a SME makes it easier to educate and train workers than in a large corporation. However, compared to larger companies, SMEs typically lack the resources necessary to invest in employee education and development (Nolan and Garavan 2015). When compared to the planned and extensive training programs of larger companies, the majority of training and development initiatives at SMEs are ad hoc and limited in scope.

2.1.4.7 Human resources

While there is no single agreed-upon definition of sustainability, the most common usage relates it to human progress on Earth. In 1987, Brundtland defined sustainable development on behalf of the United Nations General Assembly. Concerns over the link between economic growth and environmental damage prompted the emergence of the sustainable development concept (Fact book, 2008).

2.1.5 The Concept of Sustainability

Sustainable development, according to the commission, is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987).

2.1.6 Sustainability Performance

A holistic approach to performance, sustainability takes into account environmental and social impacts in addition to the economic sphere (Fauzi, Svensson, and Rahman, 2010). The responsibility of a company extends beyond the mere generation of monetary wealth; environmental and social well-being must also be taken into account in any assessment of a business's long-term viability (Fauzi et al., 2010; Wu, Subramanian, Abdulrahman, Liu, Lai, and Pawar, 2015). Shareholders' and other interest groups' needs are taken into account when evaluating sustainability performance (Colbert, Kurucz, 2007; Henriques & Richardson, 2013). Researchers, however, have adopted a variety of tools for measuring sustainability outcomes (Gross, 2015). This means that measures of sustainability performance take into account not just the economic but also the social and environmental dimensions (Cornelius, Todres, Janjuha-Jivraj, Woods, & Wallace, 2008; Furnish et al., 2013; Hubbard, 2009; Norman et al., 2004; Slaper et al., 2011). Several studies have found support for a similar concept, which suggests that a company's objective should be to create synergies between environmental, social, and economic aspects in order to boost its sustainability performance (Jonker et al., 2004; Van Marrewijk et al., 2003). (Rasi et al., 2014). The focus of sustainable business practices has shifted from pollution prevention to ecoefficiency, and then to social efficiency. These fundamental ideas are geared toward mutually beneficial outcomes, where economic gains are aligned with environmental effectiveness. Some examples include cutting back on energy use and trash, while others have to do with how well you perform socially. (Think: negative social minimization and positive one's maximization) (Young et al., 2006). Therefore, sustainability performance in management practices may be seen as an important shift toward a focus that is not only business- and society-oriented, but also planet-oriented (Fauzi et al., 2010; Wu et al., 2015).

2.2 Pillars of sustainability

According to Eikelenboom and de Jong (2019), small and medium-sized enterprises (SMEs) have been largely overlooked in terms of their future commitments to sustainable growth, despite their efforts to promote sustainability. Having a positive impact on the economy, society, and the environment are all aspects of sustainability that companies should discuss. The triple-bottom-line of sustainability has been defined by a series of triangular principles that provide a holistic and interconnected approach

to economic, social, and environmental processes as shown in figure 1 below, pillars of sustainability (Zhong & Wu, 2015). (Zhong & Wu, 2015).

True sustainability benefits not only the bottom line of businesses but also the health of the planet, its inhabitants, and its natural resources (Tasdemir & Gazo, 2018). In addition to that, should there be any biases towards sustainability, the three pillars would incline towards failure as it would not be different from a tripod which has legs but with unequal lengths.

2.2.1 The Triple Bottom Line

The sustainability concept takes into consideration three dimensions: economic, environmental, and social (Guide 2018; He et al. 2019), which contribute to sustainable development and are collectively referred to as triple bottom line (TBL) (TBL). TBL is the foundation of effective sustainable development and a measurement of sustainability outcomes (Elkington 1998; Henao, Sarache, and Gomez 2019). Although the literature distinguishes between TBL practices and performance (Martinez-Jurado and Moyano-Fuentes, 2014), the present research is concerned with the latter. Businesses' ability to maintain their operations and profits over time is referred to as "economic performance" (Martinez-Jurado and Moyano-Fuentes 2014). The focus of this research is on operational performance and its role in the overall success of a business (Gimenez, Sierra, and Rodon 2012; Martinez-Jurado and Moyano-Fuentes 2014). Resource consumption and the environmental impacts that result from that consumption are what we mean when we talk about environmental performance (Hall, Daneke, and Lenox 2010). The term "social performance" is used to describe how well an organization looks after its employees in areas like health and safety (Wu et al. 2015; Marshall et al. 2015; Huq, Chowdhury, and Klassen 2016).

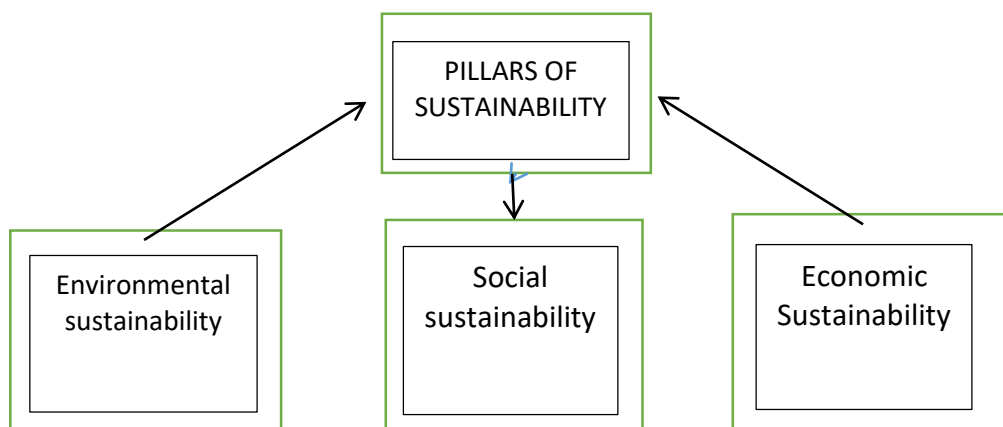


Fig.1 Pillars of Sustainability (Zhong & Wu, 2015)

A number of sustainability ideas from the literature were used to probe the ties between lean and sustainability, as shown in Figure 1. It also shows that the "balance" between social, environmental, and economic perspectives is still a little hazy, and that not all concepts take into account all three dimensions of sustainability. (Martnez León & Calvo-Amodio, 2017)

2.2.1.1 Environmental sustainability

Nearly all discussions of human interactions with ecosystems are couched in terms of the environment. To be more precise, "environmental" should be seen as a subset of the broader definition of "ecological," or the point where human activities intersect with natural systems (Morelli, 2011). The way humanity has historically utilized global natural capital has placed immense stress on the planet's atmosphere, leading to the depletion of natural resources, the pollution of the climate, the acceleration of global warming, the elevation of sea levels, and the endangerment of biodiversity. The effects of the surrounding environment must be taken into account; this is especially true for small and medium-sized enterprises (SMEs). Because of this, there is a greater need for SMEs to produce goods with fewer negative effects on the environment in order to remain competitive and meet the needs of their customers. Reducing carbon dioxide emissions throughout the supply chain is only one part of environmental sustainability. Improving this pillar has huge benefits for a small or medium-sized business. This is the single most important factor to consider going forward, as consumers increasingly demand sustainable options. They're in a better position to sell their products to customers thanks to the environmental data at their disposal. Sales for a company can be sparked in this way. The environmental pillar of sustainability is particularly important because it leads to more opportunities and has a positive effect on the other pillars. For a small or medium-sized business, this is a huge competitive advantage (Zhong & Wu, 2015)

2.2.1.2 Economic sustainability

The recognition of environmental and social goals by SMEs as strategic priorities. An organization's economic performance is measured by how well it makes use of its

resources to generate profits and sustain growth. The three pillars of sustainability are essential for companies that rarely focus on sustainability as a whole. One missing pillar will affect the others in a domino effect. Since many SMEs operate on tight budgets, the issues of governance and economics often take precedence over those of environmental and social sustainability. However, solutions to the sustainability problem would require upholding the sustainability of all three pillars, so corporate sustainability cannot be advanced in the absence of environmental and social outcomes (Eikelenboom & de Jong, 2019). The capital cost and operating cost should not be overlooked by SMEs. Economic sustainability can be achieved through the adoption of cost-cutting ideologies in the production system. For a SME to be successful over the long term, this pillar should be given a lot of attention. The key to success is accumulating more assets than debts. Good equipment, tools, and personnel with specialized skills are examples of assets. In light of the fact that most businesses today are worried about their operating expenses, an asset-based company is more vital than ever (Jitmaneroj, 2016).

2.2.1.3 Social sustainability

The ability to consistently embrace and practice social sustainability is often seen as beyond the capabilities of SMEs. This incapacity could be attributable to a number of different things. For instance, misunderstandings about the role of SME owners and managers, a deficiency in financial and capital investment, a scarcity of relevant experience, expertise, and knowledge, and so on. At the same time, given that SMEs make up the vast majority of global companies, it is impossible to ensure the welfare of their employees or the achievement of sustainable development goals unless SMEs are made economically sustainable. Expectations from stakeholders and the pressure on small and medium-sized enterprises (SMEs) to be socially responsible have not changed. Because of the tension between stakeholders' hopes and the inclination of SMEs to engage in socially sustainable practices, a "mismatch challenge" emerges (Chowdhury & Shumon, 2020). Social sustainability refers to the ways in which businesses address issues of importance to the people who work for them along the supply chain, such as their health, safety, and the opportunities for professional growth and personal well-being. The following are what Chowdhury and Shumon (2020)

consider to be the most important criteria for activities to be considered socially sustainable: (SSP).

1. A safe and secure place to work
2. Appropriate working conditions
- 3 An Adequate Minimum Wage
- 4 Equality for all
5. Hours of Work Limitation
6. Forced labor policy
7. The Right to Join a Union
8. Plan to Reduce Child Labor

2.2.2 Lean practices (LP) and Triple Bottom Line Performances

TBL's financial measures that capture a company's long-term performance are included in the economic performance dimension (Martinez-Jurado and Moyano-Fuentes, 2014). In order to cut down on material costs and working capital needs, LPs can, for instance, decrease inventory and waste (Azadegan et al., 2013). Additionally, process bottlenecks and product defects that affect efficiency, costs, and profitability are revealed as stock is depleted (Fullerton et al., 2003). Multiple studies have found that LPs have a positive effect on a company's bottom line (Eroglu and Hofer, 2011; Fullerton et al., 2003; Jayaram et al., 2008). (such as profitability, return on investment, and return on assets).

LPs have the potential to affect environmental efficiency. Efficiency in resource use is directly correlated to waste reduction, so LPs and green practices go hand in hand (Dhingra et al., 2014). The use of hazardous materials, garbage, and air and water pollution can all be decreased thanks to LPs (Vinodh and Somanaathan, 2011). Low-impact development (LP) has been linked to cleaner environments and fewer emissions (e.g., King and Lenox, 2001; Yang et al., 2011). It has been argued that LPs place their emphasis on eradicating all sources of waste (such as stockpiling, overproduction, waiting times, and defective goods) right at the manufacturing stage (Martinez-Jurado and Moyano-Fuentes, 2014).

Well-being indicators such as health, safety, stress levels, and ergonomics all contribute to what we call "social performance" (Martinez-Jurado and Moyano-Fuentes, 2014). According to previous research, LP implementation helps businesses increase employee motivation (e.g., Wong and Wong, 2014) and decrease employee stress (e.g.,

Wong and Wong, 2014). (e.g., Conti et al., 2006). This could be because LP stresses the importance of having everyone in the company feel like they have a voice and can contribute to change and growth (Martinez-Jurado and Moyano-Fuentes, 2014). Recognized characteristics of LP's (Chavez et al., 2020; Hines et al., 2004) that can improve the health and psychological wellbeing of employees include things like involving people in problem solving groups, acknowledging people's efforts, and incorporating people's suggestions for improvement (Cullinane et al., 2014)

2.3 Theoretical Review

Relevant theoretical frameworks for this investigation include:

2.3.1 Legitimacy theory

Knowing Legitimacy Theory in advance will help you comprehend the dynamics of managers' voluntarily disclosing information. According to Suchman (1995, p. 574), legitimacy is "the widespread conviction that an entity's actions are commensurate with some socially constructed set of norms, values, beliefs, and definitions." Many different things push companies to look for official recognition. Managers' efforts to justify their methods are ultimately justified by the outcomes they help bring about. This quest for legitimacy has two facets: (a) maintaining consistency and credibility, and (b) differentiating between seeking passive and active support (Nason, Bacq, & Gras, 2018). According to Suchman (1995), the elements of the continuity and credibility dimension affect organizational stability and comprehension, but not equally (Suchman, 1995, p. 574). Legitimacy makes an organization more trustworthy in the eyes of its stakeholders, which in turn allows it to attract more of those stakeholders' resources (Garcia, 2016; Nason, Bacq, & Gras, 2018). However, according to Suchman (1995), an organization's legitimacy is either high or low depending on the type of support it seeks. Since legitimacy and transparency are intertwined, the level of openness will vary from organization to organization based on the type of backing it seeks. There are three distinct kinds of legitimacy: ethical, practical, and intellectual. Cognitive legitimacy "involves the affirmative support for an organization or mere acceptance of an organization as necessary or inevitable" (Suchman, 1995, p. 580); moral legitimacy "reflects a positive nominal evaluation of the organization and its activities" (Suchman, 1995, p. 579); pragmatic legitimacy "reflects the organization's immediate interests in

the eyes of its spectators," where these interests often imply exchanges between both;" (Suchman, 1995, p. 582).

Studies on CSR practices and sustainable development have already highlighted the fact that disclosure of information is a tool to legitimize organizational practices (Xie, Nozawa, Yagi, Fujii, & Managi, 2019). Some institutional theories (Hamilton & Biggart, 1988; Garcia, 2016; Nason, Bacq & Gras, 2018; Mukherjee & Nuez, 2019) argue that corporate governance mechanisms, such as the disclosure of information, promote legitimacy gains. According to Legitimacy Theory, the act of publishing an organization's social performance improves its legitimacy through increased transparency (Khan, Myttakin, & Siddiqui, 2012). Organizations are more likely to engage in voluntary disclosure of their actions and policies if they feel a greater need to legitimize those actions and policies, according to studies on legitimacy and its theory (Fiandrino, Devalle, & Cantino, 2019). Thus, the purpose of this research is to investigate how information disclosure affects the connection between economic and social performance.

2.3.2 Stakeholder's theory

Given the prominence of stakeholder management in CSR, the two concepts are often confused. Both have been around since the beginning of time, but it is impossible to pin down a precise definition for them because of how they continue to develop. For the past forty years, the stakeholder approach has steadily gained in popularity. Researchers use the term "Stakeholder," but it can mean a variety of things depending on who you ask. Stakeholder management, some argue, cannot even be theoretically analyzed.

At its core, stakeholder theory is concerned with increasing value for all involved parties. However, opinions on how the value created should be distributed vary widely among managers. While some models may only consider a select few constituencies, such as shareholders or customers, others may include a much broader range of interested parties. It's easy to overlook the fact that different stakeholders have unique needs and perspectives even within the same group. Theorizing from the perspective of stakeholders is helpful for rethinking and enhancing management and business practices. For the past forty years, the stakeholder approach has steadily gained in popularity. Researchers use the term "Stakeholder," but it can mean a variety of things depending on who you ask.

According to the Stakeholder theory, businesses rely on a wide variety of people and groups to function effectively. There is an interest in the company on the part of every

stakeholder category. Its goal is more than just financial gain for its owners. Its primary purpose is to meet the requirements of the public, so it has widened its scope to incorporate community and social concerns. A different goal for the company is proposed, and the theory of the firm's relationships with its various constituents is described. The goal of stakeholder management is to develop strategies for coordinating the interests of various constituencies. Freeman chose the term "Stakeholder" to rhyme with "stockholder" because he wanted to focus solely on the financial angle. However, he fails to include managers in his list of stakeholders.

As stated by Donaldson & Peterson (1995), Stakeholder theory is distinctive from these and other theories of the firm in important respects. An organization is a system that allows many individuals to work together to achieve many goals, not all of which will be compatible with one another. In their three categories, they placed the stakeholder theory, The Three Functions of Description, Norm, and Tool

2.3.2.1 Descriptive/empirical stakeholder theory:

The descriptive aspect of stakeholder theory examines the actual actions and perceptions of managers and stakeholders. It provides insight into and context for how organizations and the people who have a stake in them got to where they are today. Such terms as "firm nature," "managers' thinking about the firm," and "board members' perceptions of the interest of the corporate constituencies" are all examples of the kinds of characteristics and behaviors that can be characterized by this term, and it can provide an explanation for how some corporations actually manage.

2.3.2.2 Normative stakeholder theory:

Stakeholder theory has its normative foundation in the underlying philosophical concepts and their connection. It makes an attempt to explain the organization's purpose and provide guidelines for it based on some fundamental ethical or philosophical principles. It's used for everything from interpreting the company's various functions to figuring out the company's moral or philosophical compass. It includes theories about how managers or stakeholders should act and how they should understand the organization's purpose, according to Friedman and Miles (2006).

2.3.2.3 Instrumental stakeholder theory:

According to the instrumental stakeholder theory, managers should act in a certain way if they want to advance their own personal goals. Profit maximization and shareholder value maximization are taken for granted as the organization's presumed self-interest. It's a tool for establishing causal relationships between stakeholder management and the realization of mutually beneficial corporate goals like increased revenue. This is done alongside available descriptive or empirical data. Harrison, Bosse, and Phillips (2010) claim that descriptive theory is one of the most debated in academia. In addition, it is the one that, as per Barnard (1968), seeks to ascertain how much firm value should be distributed among the major stakeholders so as to satisfy them and guarantee their long-term collaboration. Strategic management research is strengthened by the inclusion of normative and instrumental stakeholder theory, according to Asher, Mahoney, and Mahoney (2005).

2.3.3 Agency theory

The Law of Agency

When representing another party (the "principal") in social interactions, an agent acts on the principal's behalf. A selling agent is an intermediary who sells products on behalf of a principal, such as a manufacturer. A stock broker, like any other agent, works on behalf of his or her client (the principal) to buy and sell shares of stock. The agent commits the principal to agreements and transactions in the principal's stead. Directors are the company's agents under company law. Any member of the board of directors, or the board as a whole, may enter into legally binding contracts on the company's behalf. Since the board of directors is vested with the majority of the company's authority, it is under their purview to determine the company's direction, goals, business strategies, investments, and performance goals. When the company's owners (the shareholders) and the directors are two different people, questions arise about the proper use of the directors' considerable authority: How can the company's shareholders verify that the board of directors is looking out for their interests? Shareholders may wonder what recourse they have if board members take positions with which they disagree.

2.3.4 Resource based view theory (RBV)

To gain an edge over the competition and keep it, try the RBV method. Birger Wernerfelt, Prahalad and Hamel, and others in the 1980s and 1990s published seminal works that laid the groundwork for this strategy. The proponents of this view contend

that, rather than focusing on their external competitors, businesses should instead look inward for inspiration.

Proponents of RBV argue that capitalizing on external opportunities is simpler and more doable with the proper deployment of existing resources. In contrast, this strategy avoids the need to constantly learn and adapt in order to take advantage of new openings. The RBV model suggests that resources are crucial to an organization's success in maximizing its potential. Tangible and intangible assets are the two categories of resources.

Tangible assets: Machines and money are examples of movable property. Organizations can acquire the necessary materials with little difficulty in today's markets. Consequently, they offer comparatively little benefit to businesses over time. That's because it's possible for competitors to do the same thing, creating a level playing field.

which delivers competitive parity.

Intangible assets: The term "intangible asset" is used to describe resources that cannot be seen or touched. On the other hand, these assets can be owned by a business. Intangible assets include things like a company's goodwill, trademarks, intellectual property, etc. Intangible assets, like brand recognition or customer loyalty, take much longer for businesses to develop. Therefore, rivals have a hard time acquiring such assets on the open market. A company's intangible assets are its most valuable resources. Therefore, intangible assets are crucial to a company's ability to stay ahead of the competition. When it comes to maintaining an edge in the market, intangible assets are often where it's at.

Two essential requirements of RBV are that resources be both diverse and stationary.

Heterogeneous: First, it is assumed that organizations are heterogeneous in terms of the skills, capabilities, and other resources they possess. If businesses' resource profiles are similar, they will be unable to use strategies that give them a competitive edge. Whenever one firm makes a move, the other could easily imitate it. Because of this, businesses gain no advantage over their rivals. Perfect competition describes this situation.

Nonetheless, imperfect competition is endemic in actual markets. When faced with the same external and competitive forces, similarly situated businesses often find it easy to copy and paste successful strategies from one another. Therefore, RBV presupposes

that firms gain a competitive edge by strategically applying their various resource assemblages.

An excellent case in point of RBV of strategy is the rivalry between Apple Inc. and Samsung Electronics. Since they both serve the same market, they are subject to the same external market forces. Organizational performance varies greatly between businesses because of the disparity in available resources. Apple and Samsung are competitors in the tablet and smartphone markets. Apple's products cost more than competitors', so the company makes more money off of each sale. Unlike Apple, however, Samsung does not enjoy the same level of brand recognition, so the company cannot employ the same strategy. Not even close to Apple's level of user-friendly product design is Samsung's forte (yet).

Immobile: RBV's second premise is that resources are immobile and don't switch hands between firms quickly or often. Because of this inability to move, competing businesses are at a strategic disadvantage. Immovability is a common trait among intangible resources like brand equity, processes, knowledge, and intellectual property.

Importance of Resource-based View

The purpose of the resource-based perspective is to achieve a long-term competitive edge. Only by carefully analyzing its resources, allocating them strategically, and putting them to use across departments can a company ensure its competitive edge remains strong. In the same way, a company can only innovate and differentiate itself when its employees are allowed to reach their full potential. Businesses can benefit from an RBV strategy by accomplishing:

Ability to see where resources are going so they can be allocated effectively

Keep your edge in the market.

Utilization of Assets Across Departments

The importance of transparency in resource allocation

Managers are aided in their quest for insight into resource skills and competencies by the all-encompassing view of all resource pools. Managers can then distribute funds in response to the breadth and depth of interest in the company's wares. They are better able to maximize profits, leverage talent to its fullest potential, and make data-driven decisions thanks to the availability of real-time data.

2.4 Empirical Review

There have been a number of published reports on the subject of lean manufacturing and the effects it has on company productivity. Even though many businesses across many industries have successfully adopted lean manufacturing practices, others have not. Companies with this problem shared a lack of metrics for tracking progress over the course of several years (Martnez-Jurado & Moyano-Fuentes, 2014). As a result, there's been a lot of focus from academics on figuring out why it is so difficult to quantify the benefits of lean manufacturing. Furthermore, companies cannot expect to increase productivity simply by adopting lean practices; management accountability for these methods is also essential. Therefore, the current body of literature needs to be supplemented with additional research to reach a consensus on the lean manufacturing-performance relationships.

There are many studies that have looked into the connections between lean/Six Sigma and environmental friendliness. Several researchers have examined the connection between lean/Six sigma and sustainability, while others have focused on the synergies between the two concepts (Bergmiller and McCright, 2009a; Carvalho and Cruz-Machado, 2009; Florida, 1996; Larson and Greenwood, 2004). (King and Lenox, 2001b; Rothenberg et al., 2001). Results from these studies suggest that there may be both beneficial and detrimental outcomes from combining lean/Six Sigma with sustainability practices. Businesses can better integrate the two approaches by learning to identify and address the synergies and conflicts between lean/Six Sigma and sustainability.

Many of the previous studies on sustainable development have focused on performance indicators (Veleva and Ellenbecker, 2001; Labuschagne et al., 2005; Wagner and Schaltegger, 2004), but these studies have typically been narrow in scope. Most studies on sustainable development in small and medium-sized enterprises (SMEs) have neglected social and cultural aspects of sustainability in favor of examining only environmental and economic ones (McKeiver and Gadenne, 2005; Revell and Blackburn, 2007; Garetti and Taisch, 2012; Miller et al., 2010). Multiple sources define metrics for measuring sustainability performance (Wang et al., 2015; Urban and Naidoo, 2012; Thomas et al., 2012; koho et al., 2015; Longoni et al., 2013; Veleva and Ellenbecker, 2001; Winroth et al., 2016; Zhu et al., 2008)

While studies have shown that businesses have had trouble implementing and integrating both paradigms (Cherrafi et al., 2017c), only one paper addresses the issue of a lack of an integration strategy (Kurdve et al., 2014). The values and norms of each country may place a different emphasis on these problems; for instance, the United States places a high priority on health and safety (Kleindorfer et al., 2005).

Conclusions: a. A lack of metrics and measurement is the most frequently encountered obstacle

b. Most authors discuss the lack of management backing.

Collectivist nations value employee participation and company culture more than those that don't.

Most existing studies set out to establish causality between two variables: (a) social and (b) environmental practices and economic performance. Recent studies (Malesios C, Skouloudis, Dey, Abdelaziz, Kantartzis, Evangelinos, 2018; Malesios, Dey, Abdelaziz, 2018; Dey, Malesios, Budhwar, Chowdhury, Cheffi, 2020) show, however, that it is extremely valuable to understand the connection between every sustainability practice and performance. So, to improve their sustainability performance, SMEs need a more solid framework to enable analysis of their sustainability practices.

Out of their literature review, Jadhav et al. (2014) uncovered 24 obstacles to lean implementation. There are many factors beyond the application of appropriate tools and techniques that will determine the success of a company's lean implementation, including the involvement and leadership of upper management, as well as the attitude and availability of employees and the company's resources and infrastructure.

According to research conducted by Rozhan Othman in 2016, a large percentage of LPS initiatives fail. It is estimated that between fifty percent and ninety-five percent of LPS projects fail to achieve their objectives. The author argues that knowledge stickiness is at the heart of the difficulties surrounding LPS adoption.

Using a multiple-case-study research strategy, Manoj Kumar Dora et al. (2016) investigated the effects of contextual or determining factors on lean manufacturing in SMEs in the food-processing sector. The authors conclude that it is challenging to

implement lean manufacturing in food-processing SMEs due to the small size of the plant, the traditional setup, and the inflexible layout.

Some general guidelines for the use of certain lean practices in the process industry were provided by Abdulmalek, Rajgopal, and Needy (2006).

A lean practice template was created by Davies and Greenbush in 2010. According to them, it adequately depicts the range of feasible lean activities across an organization, with special focus on the maintenance department. The lean transition has been mapped out in some research. A dynamic road map, developed by Anvari et al. (2011), helps businesses decide which tools to implement based on the nature of their industry and their current state.

Nonfinancial performance has previously been measured in empirical research through factors such as market share, productivity, efficiency, workforce development, product quality, on-time delivery, customer satisfaction, leadership, and employee satisfaction (Bagshaw, 2018; Wonolo, 2018; Yuliansyah and Razim, 2015). Human resource variables such as empowerment, flexibility, and training and development were also used as proxies for lean manufacturing alongside operational variables such as Just-In-Time, Total Productive Maintenance, and automation (Tiwari and Tripathi, 2016).

Only two of the previously reviewed literature pieces take into account all three aspects of TBL sustainability.

Using a supply chain management lens, Martinez-Jurado and Moyano-Fuentes (2014) established a connection between SCM and LM. Since their study focuses primarily on environmental sustainability and the economic dimension from a sustained performance over time perspective, they conclude that more research is needed to understand the connections between LM and the three pillars of sustainable performance, especially the social pillar (Martnez Leon & Calvo-Amodio, 2017).

Another review (Cherrafi, Elfezazi, Chiarini, Mokhlis, & Benhida, K., 2016) provides a concise summary of the gains made through the combination of LM, six sigma, and sustainability practices. This review takes environmental and social benefits into account, but it also acknowledges that more research needs to be done into "the negative effects of the integration of lean/six sigma and sustainability." Insight into these effects

will allow for research into mitigation strategies, which will ultimately facilitate a middle ground between business, environmental, and social performance (Cherrafi et al., 2016)

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The research strategies used in this study are highlighted in this section. It is the backbone of the research project because it details the exact methods used.

For the purposes of this project, the term "methodology" is used to describe all the steps taken to gather the necessary data. The scope of the researcher's procedural strategies used in the research is the focus of this section. The research model, population, sample size, data collection strategy, research instrument, pilot study, research instrument

validity, reliability test, data analysis strategy, model specification, and measurement variables are all part of the research process.

3.1 Research design

A research plan is the framework for conducting the research that will be conducted. However, it is also possible to have a general understanding of the relationship between variables without being aware of the direction or impact of that relationship. In other words, it's an all-encompassing strategy for conducting a study. Exploratory research, descriptive research, and experimental (or informal) research are the three main types of research designs.

Descriptive research methodology was used for this study. This plan is useful for deciding where to look for data because it facilitates collecting comparable data from many different people in one fell swoop with a well-crafted survey.

When exploring a topic with the intention of identifying features, frequencies, trends, or classes, descriptive research is the method of choice. It helps when there is little information available about the issue at hand. You need to know the what, when, and where of an event before you can investigate its cause.

3.2 Population of the study

An entire group of people, organizations, or things that share some characteristic of interest to a researcher is called a population. One can either keep an eye out for them or physically count them. It is possible to have an infinite population. It can also refer to a clearly defined group of people or things that share some observable characteristics. There were 100 people total, made up of workers, managers, and owners at various bakeries, retail and wholesale establishments, and water factories in Lagos State, Nigeria. Forty-two surveys were given out in the bakery industry, forty-eight in the wholesale sector, and ten in the water factory sector. In total, 72 people from various small and medium-sized businesses took part in the survey.

3.3 Sampling unit

Sampling is a statistical method for obtaining representative data from a population in order to generalize about the entire population. When selecting from a group, each part is considered separate and unique, so the term "sampling unit" is used to describe one of these parts.

3.4 Sample Size Determination

Samples are selected subsets of a population from which characteristics of the whole can be estimated (Seigel, 2003). In this context, a representative sample means a subset of the population that accurately reflects the whole. A convenience sample of 100 participants was collected for this study.

Table 3.1: Analysis of Questionnaire Distribution

Total Questionnaire administered	100
Total Questionnaire not returned	28
Total Questionnaire received	72
Variance	72%

Source: Researcher's computation from questionnaire survey, 2022

3.5 Method of Data Collection

The term "data" is used to describe information compiled from a variety of sources, including numerical information, physical objects, symbols, and historical events. Primary data collection methods include interviewing participants directly and observing their behavior, while secondary data collection methods include using existing data sets to fill in gaps. In this study, the chosen methodology also serves as the primary means of gathering information. This study used both quantitative and qualitative primary data collection strategies.

The questionnaire was the primary tool for collecting information. The research questionnaire in this study was created after carefully considering the study's aims.

3.6 Research instrument

A questionnaire was used as the research tool. Paying close attention to the voices of respondents is central to this analysis's data collection, processing, and interpretation phases. The survey will be closed-ended and designed to elicit a predetermined answer pattern reflecting the respondent's thought process on the topic. This questionnaire follows the standard practice of using "close ended" questions, which require researchers to give participants a limited number of predetermined answers. According to the nature of the data being collected, we used a five-point Likert scale. As a result, it can be broken down into five distinct responses: (SA) Strongly Agree, (A) Agree, (U)

Neither Agree nor Disagree, (D) and (SD) Strongly Disagree (SD). The questionnaire followed a strict format, and it contained three theoretically-based research questions.

3.6.2 Interviewing

The information was gathered through both online surveys and in-person interviews with the participants. By doing so, the researcher was able to ensure that the respondents understood the questions being asked and provided useful responses.

3.7 Pilot study

Prior to carrying out a full-scale research project, it is common practice to conduct a pilot study to test the waters, so to speak.

3.9 Reliability of test

A measurement instrument is said to be valid if it reliably measures the variable it was designed to assess (Blumberg, 2005). It refers to how accurate the findings actually are. It takes into account the full scope of the experiment and determines if the results obtained are in line with the standards of a rigorous scientific study.

Managers, supervisors, and employees across a range of SMEs in Lagos State were sent the research questions, but customers were not included in this survey.

3.9 Reliability of test

When a metric is reliable, it produces identical results every time. Research consistency, accuracy, and credibility are all evaluated.

Reliability Statistics	
Cronbach's Alpha	N of Items
.911	28

The value of Cronbach's alpha, a measure of reliability, typically falls between 0 and 1. While this may seem like the coefficient has a minimum, the truth is that there is none. The greater the internal consistency of the items on the scale, the closer Cronbach's

alpha will be to 1. The formula for the size of alpha is $\alpha = rk / [1 + (k - 1)r]$, where k is the number of items and r is the mean of the inter-item correlations. The size of alpha is dependent on both the number of items in the scale and the mean inter-item correlations. These guidelines are provided by George and Mallery (2003): ">.9 - Excellent, >.8 - Good, >.7 - Satisfactory," A score of 7 indicates acceptability; a score of 0.6 or higher indicates uncertainty; a score of 0.5 or higher indicates mediocrity; and a score of 0.5 or lower indicates intolerability. According to (Joseph A. Gliem, 2003). According to George and Mallery (2003), the study's 0.911 reliability score is very high.

3.10 Method of data analysis

Information gathered for this study (i.e., through questionnaire) was analyzed using SPSS statistical package version (26.0), with the help of both descriptive and inferential method analysis.

3.10.1 Model specification

The theoretical framework used as a fulcrum for the model specification attempts to shed light on the connection between lean practices and sustainability performance (ESE) in Lagos state.

In a nutshell, the model can be written as;

$$SP = f(LP)$$

$$\text{Which is also, } Y = f(x) \dots \dots \dots (1)$$

Where $Y = y_1, y_2, y_3$

$y_1 =$ Social Sustainability Performance (SSP)

$y_2 =$ Economic Sustainability Performance (ECSP)

$y_3 =$ Environmental Sustainability Performance (ENSP)

$X =$ LMP

$$y_1 = \alpha + \beta_1 x_1 + \epsilon \dots \dots \dots (2)$$

$$y_2 = \alpha + \beta_1 x_1 + \epsilon \dots \dots \dots (3)$$

$$y_3 = \alpha + \beta_1 x_1 + \epsilon \dots \dots \dots (4)$$

$$SSP = \alpha + \beta_1 LMP + \epsilon \dots \dots \dots (5)$$

$$ECSP = \alpha + \beta_1 LMP + \epsilon \dots \dots \dots (6)$$

$$ENSP = \alpha + \beta_1 LMP + \epsilon \dots \dots \dots (7)$$

where:

Y = Sustainability Performance

x = Lean Management Practices

y_1 = Social Sustainability Performance

y_2 = Economic Sustainability Performance

y_3 = Environmental Sustainability Performance

α = Constant or Intercept

ε = Error Term

3.12 Limitations of the Study

1. Respondents withholding information due to fear of being victimized but however, the researcher convinced the respondents that the information was kept safely.
2. Unwillingness of respondents to fill the papers. The researcher tried to be in constant touch with the respondents and make sure reminders are sent to them to fill the questionnaire.
3. Respondents having a view of not obtaining any direct benefit from the research results. The researcher tried his level best to convince the respondents to spare some little time to answer the questions.
4. The timing.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

The goal of this chapter is to analyze, explain and present the result of the data obtained from the questionnaire administered to the respondents. The data from the study was obtained in order to test the hypothesis and conclusion drawn was obtained through the questionnaire administered to the staff of various small medium enterprises which include: Bakeries, clothing factory and water factories.

4.2 Data presentation, Analysis and Interpretation

The data obtained for this study was analyzed through the descriptive and inferential analysis using the simple regression analysis of the Statistical Package of the Social Sciences (SPSS). The analysis and the presentation of the result obtained from the data was categorized which include: 1. the analysis of the respondents' personal data; 2. the test of the hypothesis using SPSS packages such as regression analysis, correlation coefficients and descriptive analysis; 3. the outcome of the result.

Table 4.1:

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Lean management practices help to improve Corporate Social Responsibilities	72	1	5	3.88	.948
Lean management practices improve the working environment	72	1	5	3.99	.813
Lean management practices enable employee to know about environmental, health and safety issues.	72	1	5	3.75	.960
Lean management practices help employees know more on how to reduce waste	72	1	5	4.10	.858

Lean management practices helps to avoid cost-intensive measures	72	1	5	3.74	1.035
Lean management practices improve employee morale and commitment.	72	1	5	3.85	.899
The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace	72	1	5	3.69	.929
Lean management accounting improves team spirit	72	2	5	3.86	.924
The application of Lean management practices improves the company's profit.	72	0	5	3.60	1.241
Lean management practices Improves marketability of the products.	72	0	5	3.64	1.142
The performance of lean management practices meets the customers satisfaction	71	0	5	3.52	1.194
Lean management practices increases the trustworthiness of equipment.	72	0	5	3.74	1.075
Lean management practices increases workers output	72	0	5	3.43	1.243
Lean management performance enhances the SME to produce more.	72	0	5	3.83	1.187
Lean management practices enhances growth in ROI	72	0	5	3.44	1.310
Lean management practices promotes growth in Return on assets	72	0	5	3.85	1.159
Lean management practices help to avoid cost-intensive environmental measures.	72	0	5	3.78	1.129

The practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc	72	0	5	3.64	1.092
Lean management practices decrease the intake of hazardous/harmful/ toxic substances	72	0	5	3.64	1.142
Lean management practices decrease the number of environmental accidents	72	0	5	3.75	1.097
Lean management practices improve a company's public image.	72	0	5	3.61	1.120
Lean management practices enhance communities and individuals to function and flourish in the society	72	0	5	3.74	1.075
Gender	72	0	2	1.43	.577
Age	71	0	3	1.45	.807
Highest Academic Qualification	72	0	4	2.12	1.087
Position	71	0	4	1.59	1.036
Years of service	72	0	4	1.58	.975
What professional courses have you attained?	72	0	4	1.36	1.532
Valid N (listwise)	69				

Source: SPSS, 2022

From Table1 above, the statement that lean management practices help to improve Corporate Social Responsibilities has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.88 and standard deviation of 0.948. The statement two that Lean management practices improve the working environment has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.99 and standard variation of 0.813. The statement three that lean management practices enable employee to know about environmental, health and safety issues has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.75 and standard deviation of 0.960. The statement four that lean management practices help employees know more on how to reduce waste has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 4.10 and

standard deviation of 0.858. The statement five that lean management practices helps to avoid cost-intensive measures has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.74 and standard deviation of 1.035. The statement six that lean management practices improve employee morale and commitment has a minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.85 and standard deviation of 0.899. The statement seven that the impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace has minimum statistic of 1, maximum statistic of 5, mean statistic value of 3.69 and standard deviation of 0.929. The statement eight that lean management accounting improves team spirit has a minimum statistic of -2, maximum statistic of 5, mean statistic value of 3.86 and standard deviation of 0.924. The statement nine that the application of lean management practices improves the company's profit has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.60 and standard deviation of 1.241. The statement ten that lean management practices improves marketability of the products has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.64 and standard deviation of 1.142. The statement eleven that the performance of lean management practices meets the customers satisfaction has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.52 and standard deviation of 1.194. The statement twelve that lean management practices increases the trustworthiness of equipment has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.74 and standard deviation of 1.075. The statement thirteen that lean management practices increases workers output has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.43 and standard deviation of 1.243. The statement fourteen that lean management performance enhances the SME to produce more has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.83 and standard deviation of 1.187. The statement fifteen that lean management practices enhances growth in return on investment has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.44 and standard deviation of 1.310. The statement sixteen that lean management practices promotes growth in Return on assets has a minimum statistic of 0, maximum statistic of 5, mean statistic variance of 3.85 and standard deviation of 1.159. The statement seventeen that lean management practices help to avoid cost-intensive environmental measures has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.78 and standard deviation of 1.129. The statement eighteen that the practices of lean management help to reduce risks from regulatory bodies. E.g. SON,

NAFDAC, NCC, FIRS etc has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.64 and standard deviation of 1.092. The statement nineteen that lean management practices decrease the intake of hazardous/harmful/ toxic substances has a minimum statistic of 0, maximum statistic of 5 , mean statistic value of 3.64 and standard deviation of 1.142. The statement twenty that lean management practices decrease the number of environmental accidents has a minimum statistic of 0, maximum statistic of 5, mean statistic value of 3.75 and standard deviation of 1.097. The statement twenty one that lean management practices improve a company’s public image has a minimum statistic of 0, maximum statistic of 5, mean statistic of 3.61 and standard deviation of 1.120. The statement twenty two that lean management practices enhance communities and individuals to function and flourish in the society has a minimum statistic of 0, maximum statistic of 5, mean statistic value of of 3.74 and standard deviation of 1.075.

Table 4.2: Lean management practices help to improve Corporate Social Responsibilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	2	2.8	2.8	2.8
	DISAGREED	5	6.9	6.9	9.7
	UNDECIDED	10	13.9	13.9	23.6
	AGREED	38	52.8	52.8	76.4
	STRONGLY AGREED	17	23.6	23.6	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

In table 2 and graph above, This statement in the questionnaire has 23.6% responses in strongly agreed and 52.8% in agreed, making a total of 76.4% agreed responses while 13.9% were undecided, 6.9% disagreed and 2.9% strongly agreed. It shows that lean management improves corporate social responsibility.

Table 4.3:

Lean management practices improve the working environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	1	1.4	1.4	1.4
	DISAGREED	2	2.8	2.8	4.2
	UNDECIDED	12	16.7	16.7	20.8
	AGREED	39	54.2	54.2	75.0
	STRONGLY AGREED	18	25.0	25.0	100.0
	Total	72	100.0	100.0	



Source: SPSS, 2022

The table and graph above shows that 79.2% of the responses agreed that lean management practices improves the working environment while 4.2% disagreed and 16.7% are undecided.

Table 4.4:

Lean management practices enable employee to know about environmental, health and safety issues.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	3	4.2	4.2	4.2
	DISAGREED	4	5.6	5.6	9.7
	UNDECIDED	14	19.4	19.4	29.2
	AGREED	38	52.8	52.8	81.9
	STRONGLY AGREED	13	18.1	18.1	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

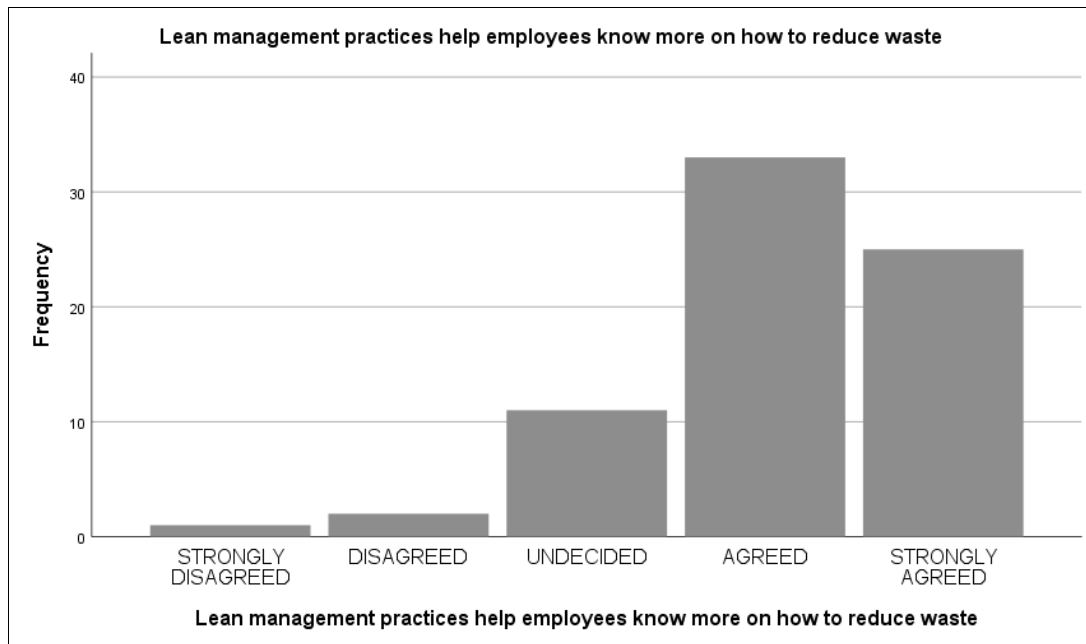
From the table and graph above the statement that lean management practices enable employee to know about environmental, health and safety issues were agreed upon by 70.9% while 9.2% disagreed and the balance were the undecided responses

Table 4.5:

Lean management practices help employees know more on how to reduce waste

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	1	1.4	1.4	1.4
	DISAGREED	2	2.8	2.8	4.2
	UNDECIDED	11	15.3	15.3	19.4
	AGREED	33	45.8	45.8	65.3
	STRONGLY AGREED	25	34.7	34.7	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

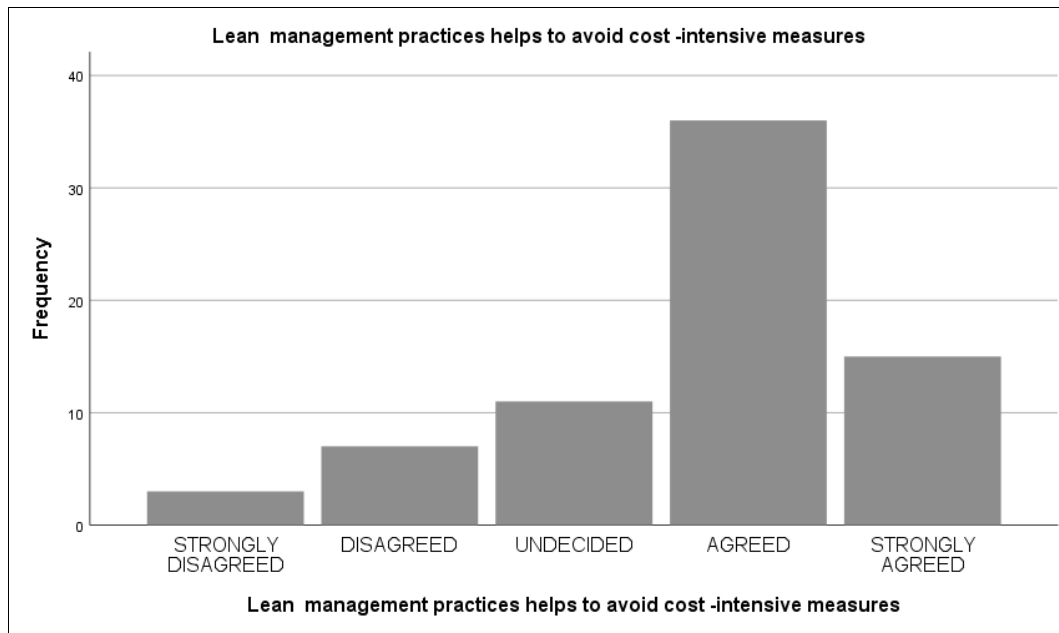
Using the graph and table above 80.5% believe that lean management practices help employees know more on how to reduce waste while 4.2% believe that lean management practices does not help employees know more on how to reduce waste and 15.3% are undecided

Table 4.6:

Lean management practices helps to avoid cost -intensive measures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	3	4.2	4.2	4.2
	DISAGREED	7	9.7	9.7	13.9
	UNDECIDED	11	15.3	15.3	29.2
	AGREED	36	50.0	50.0	79.2
	STRONGLY AGREED	15	20.8	20.8	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

The table and graph shows that 70.8% of the responses agree that lean management practices helps to avoid cost-intensive measures while 15.3% are undecided and 13.9% disagree

Table 4.7:

Lean management practices improve employee morale and commitment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	1	1.4	1.4	1.4
	DISAGREED	4	5.6	5.6	6.9
	UNDECIDED	17	23.6	23.6	30.6
	AGREED	33	45.8	45.8	76.4
	STRONGLY AGREED	17	23.6	23.6	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

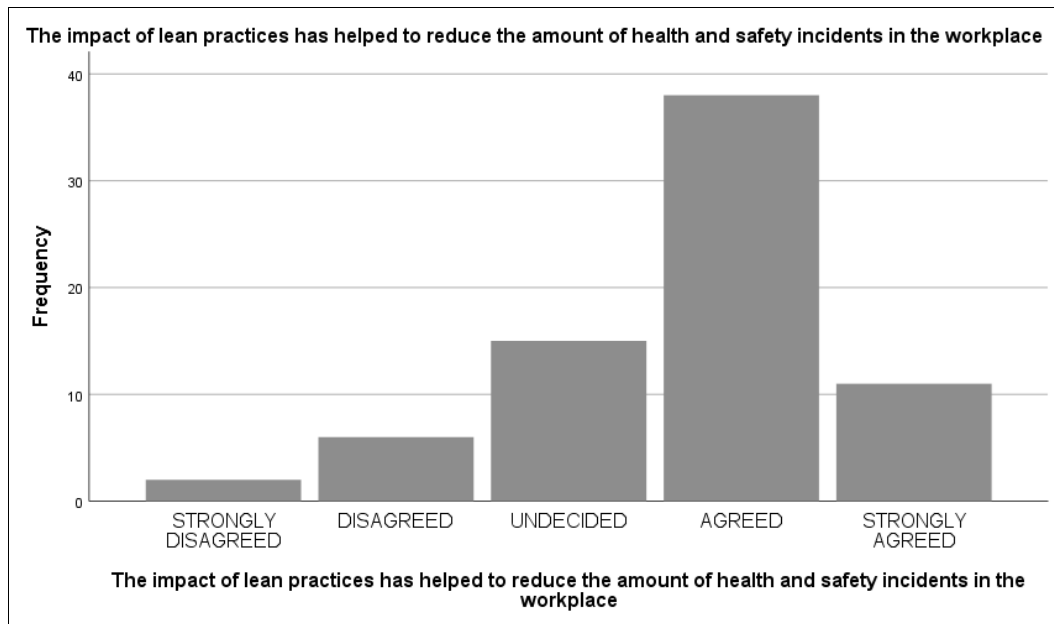
The respondents agreed that lean practices improve employees morale and commitment with a percentage of 69.4 and disagree with a 7 % percentage using the table and graph above.

Table 4.8

The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	2	2.8	2.8	2.8
	DISAGREED	6	8.3	8.3	11.1
	UNDECIDED	15	20.8	20.8	31.9
	AGREED	38	52.8	52.8	84.7
	STRONGLY AGREED	11	15.3	15.3	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

This statement in the questionnaire has 15.3% responses in strongly agreed and 52.8% in agreed, making a total of 68.1% agreed responses while 20.8% were undecided, 8.3% disagreed and 2.8% strongly agreed. It shows that the impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace in the graph and table above.

Table 4.9:

Lean management accounting improves team spirit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREED	7	9.7	9.7	9.7
	UNDECIDED	15	20.8	20.8	30.6
	AGREED	31	43.1	43.1	73.6
	STRONGLY AGREED	19	26.4	26.4	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

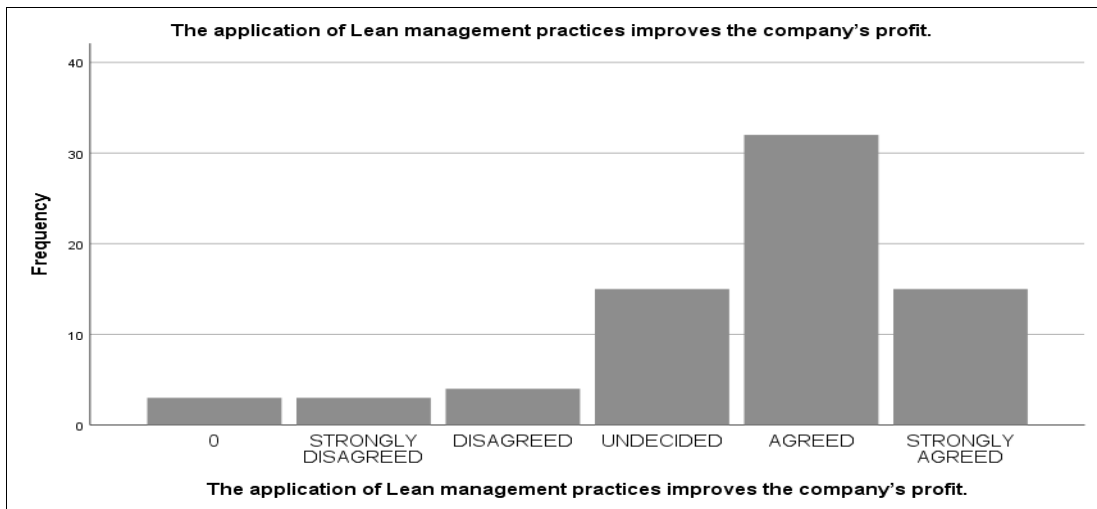
The graph and table shows that 69.5% of the responses agree that lean management practices improves team spirit while 9.7% disagree and 20.8% are undecided

Table 4.10:

The application of Lean management practices improves the company's profit.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	6	8.4	8.4	8.4
	DISAGREED	4	5.6	5.6	13.9
	UNDECIDED	15	20.8	20.8	34.7
	AGREED	32	44.4	44.4	79.2
	STRONGLY AGREED	15	20.8	20.8	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

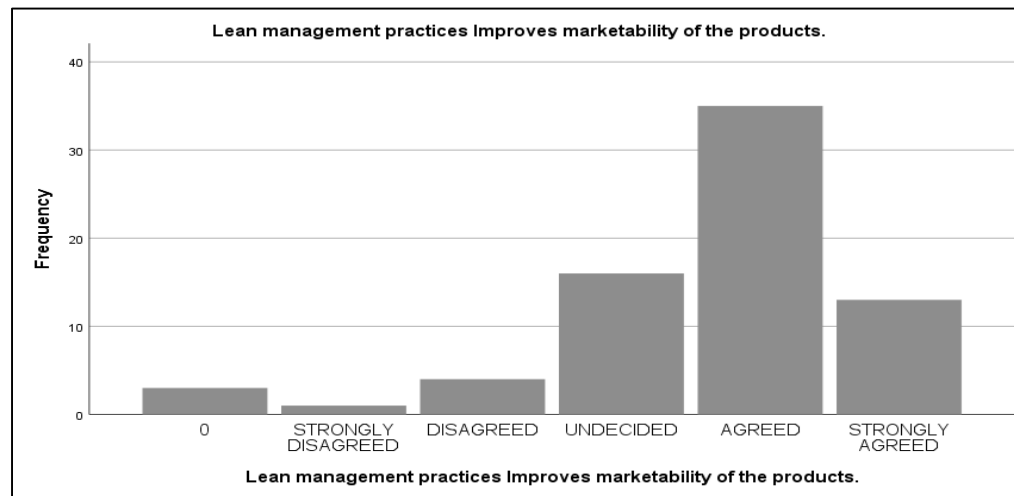
Using the table and graph above 44.4% agreed that the application of lean management practices improves the company's profit and 20.8% strongly agreed making a total of 65.2% agreed responses while a total of 14.0% responses disagrees and 20.8% were undecided

Table 4.11:

Lean management practices Improves marketability of the products.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	4	5.6	5.6	5.6
	DISAGREED	4	5.6	5.6	11.1
	UNDECIDED	16	22.2	22.2	33.3
	AGREED	35	48.6	48.6	81.9
	STRONGLY AGREED	13	18.1	18.1	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

The statement Lean management practices Improves marketability of the products proved to be agreeable by 66.7% while 11.2% disagreed. This shows that lean management practices Improves marketability of the products using the graph and table above.

Table 4.12:

The performance of lean management practices meets the customers satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
STRONGLY DISAGREED	5	7.0	7.0	7.0
DISAGREED	6	8.3	8.5	15.5
UNDECIDED	15	20.8	21.1	36.6
AGREED	34	47.2	47.9	84.5
STRONGLY AGREED	11	15.3	15.5	100.0
Total	71	98.6	100.0	
Missing System	1	1.4		
Total	72	100.0		

Source: SPSS, 2022



Source: SPSS, 2022

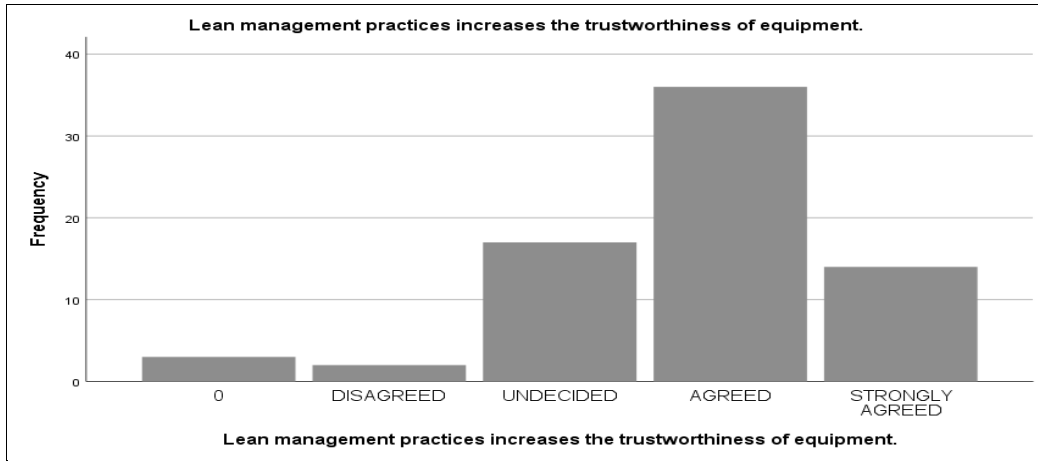
The table and graph shows that 62.5% of the responses agree that the performance of lean management practices meets the customers satisfaction while 15.3% disagree and 20.8% are undecided.

Table 4.13:

Lean management practices increases the trustworthiness of equipment.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid DISAGREED	5	6.9	6.9	6.9
UNDECIDED	17	23.6	23.6	30.6
AGREED	36	50.0	50.0	80.6
STRONGLY AGREED	14	19.4	19.4	100.0
Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

Using the table and graph above this statement in the questionnaire has 19.4% responses in strongly agreed and 50.0% in agreed , making a total of 69.4% agreed responses while 23.6% were undecided, 30% disagreed. It shows that lean management practices increases the trustworthiness of equipment. .

Table 4.14:

Lean management practices increases workers output

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	3	9.7	9.7	9.7
	DISAGREED	6	8.3	8.3	18.1
	UNDECIDED	11	15.3	15.3	33.3
	AGREED	41	56.9	56.9	90.3
	STRONGLY AGREED	7	9.7	9.7	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



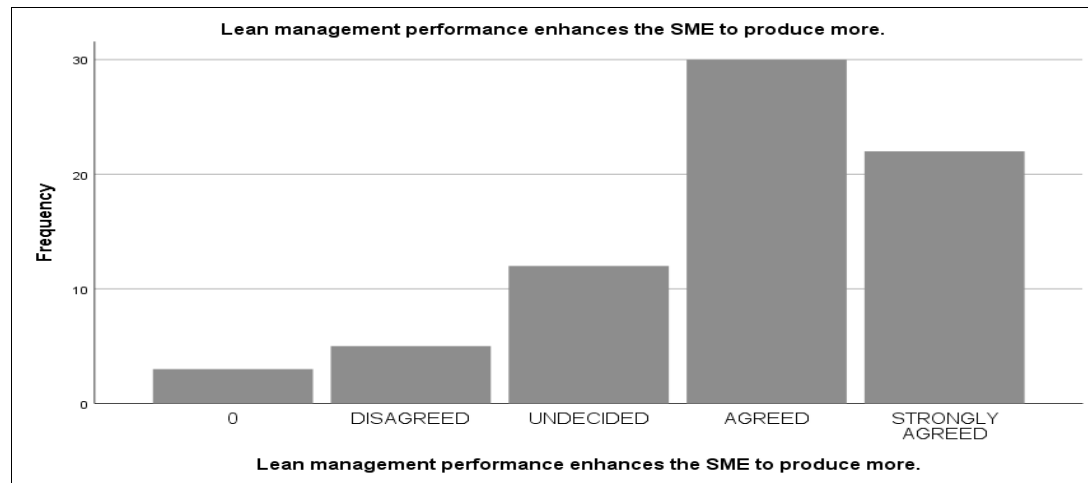
Source: SPSS, 2022

The table and figure show that out of 72 respondents, 48 (66.6%) strongly agreed or agreed that lean management practices increases workers output while the remaining 24 (27.8%) were either undecided, disagreed or strongly disagreed

Table 4.15:

Lean management performance enhances the SME to produce more.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREED	5	11.1	11.1	11.1
	UNDECIDED	12	16.7	16.7	27.8
	AGREED	30	41.7	41.7	69.4
	STRONGLY AGREED	22	30.6	30.6	100.0
	Total	72	100.0	100.0	



Source: SPSS,2022

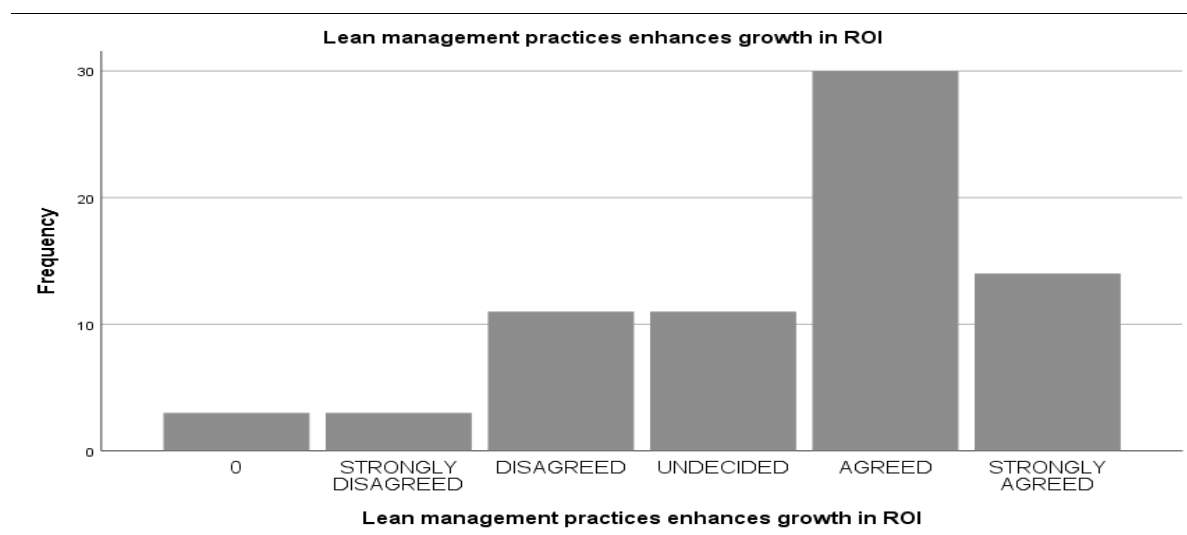
The table and graph shows that out of 72 respondents, 52 (72.3%) gave favourable response that Lean management performance enhances the SME to produce more while 20 (27.8%) were either undecided or gave unfavourable response.

Table 4.16:

Lean management practices enhances growth in ROI

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	6	8.4	8.4	8.3
	DISAGREED	11	15.3	15.3	23.6
	UNDECIDED	11	15.3	15.3	38.9
	AGREED	30	41.7	41.7	80.6
	STRONGLY AGREED	14	19.4	19.4	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source; SPSS, 2022

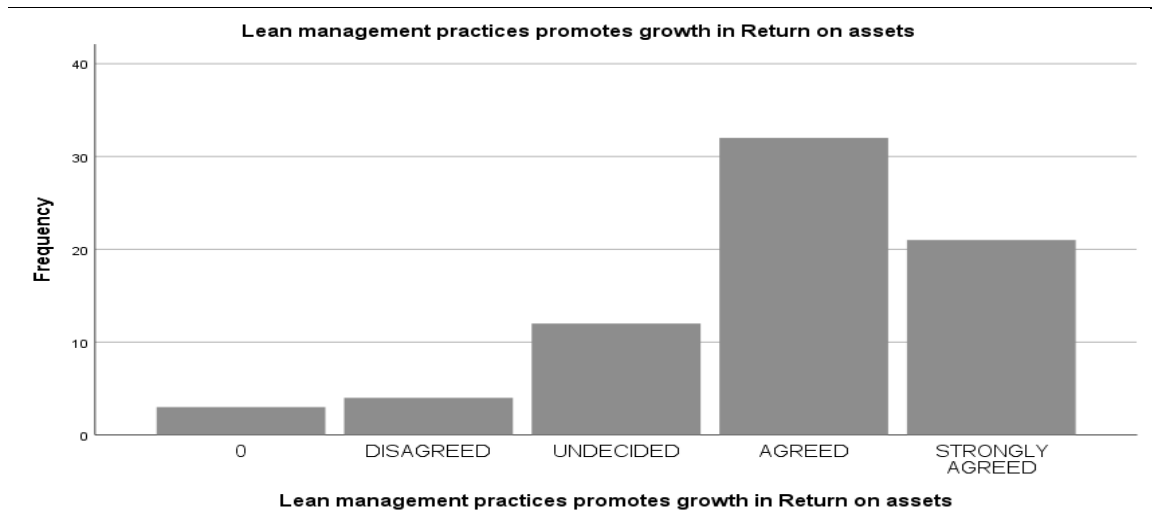
The table above shows that sixty one point one percent (61.1%) of the respondents were in favour of the statement that Lean management practices enhances growth in ROI while thirty nine percent (39%) were either undecided or against it.

Table 4.17:

Lean management practices promotes growth in Return on assets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	DISAGREED	4	9.8	9.8	9.7
	UNDECIDED	12	16.7	16.7	26.4
	AGREED	32	44.4	44.4	70.8
	STRONGLY AGREED	21	29.2	29.2	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

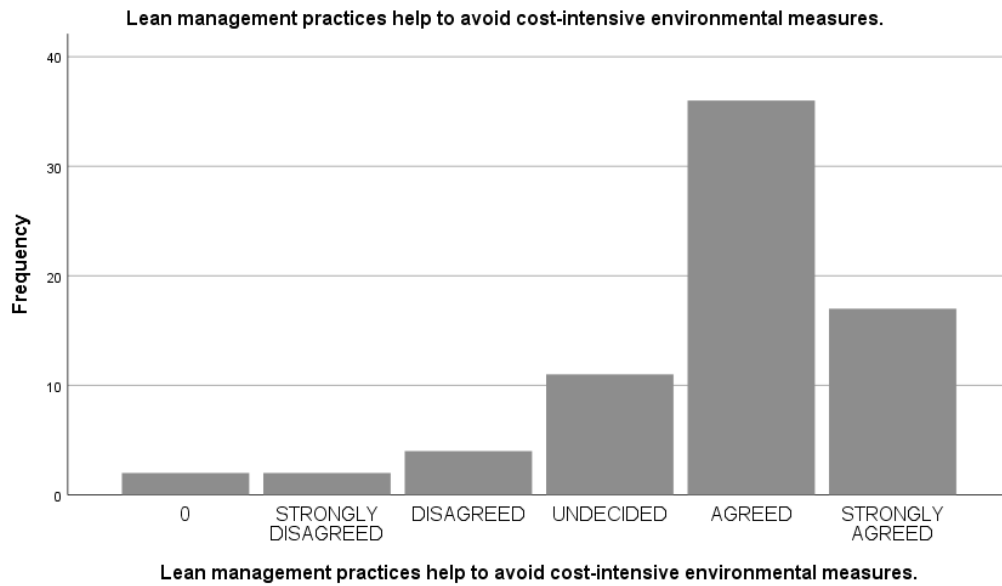
The table and graph above illustrates that seventy three point six percent (73.6%) of the respondents accepted that Lean management practices promotes growth in Return on assets while twenty six point five percent (26.5%) did not accept.

Table 4.18:

Lean management practices help to avoid cost-intensive environmental measures.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STRONGLY DISAGREED	4	5.6	5.6	5.6
	DISAGREED	4	5.6	5.6	11.1
	UNDECIDED	11	15.3	15.3	26.4
	AGREED	36	50.0	50.0	76.4
	STRONGLY AGREED	17	23.6	23.6	100.0
Total		72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

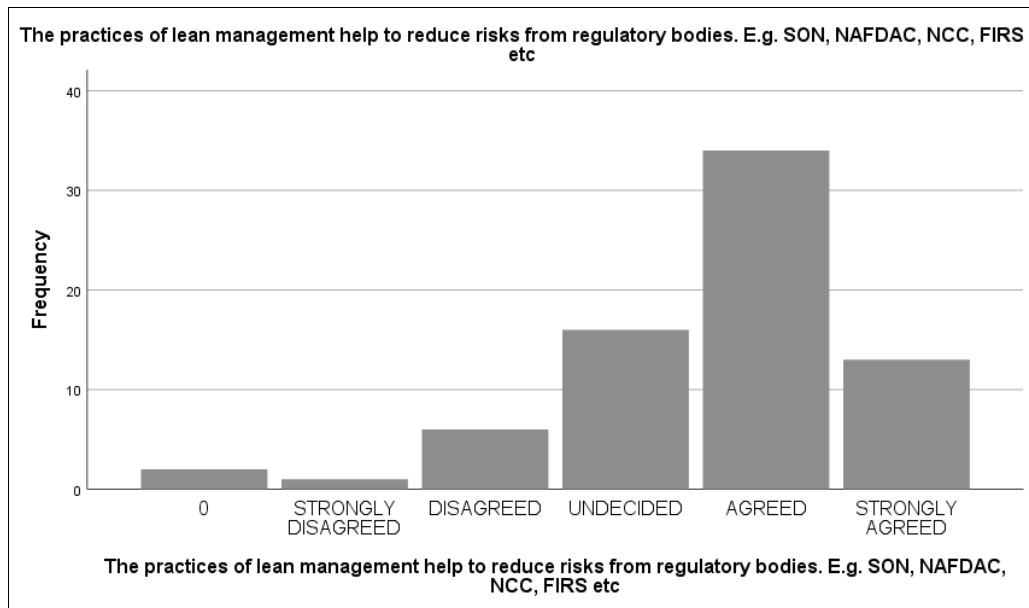
The graph and the table shows that out of 72 respondents, 53 (73.6%) gave favourable response that lean management practices help to avoid cost-intensive environmental measures while 19 (26.5%) were either undecided or gave unfavourable response.

Table 4.19

The practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc

	Frequency	Percent	Valid Percent	Cumulative Percent
STRONGLY DISAGREED	3	4.2	4.2	4.2
DISAGREED	6	8.3	8.3	12.5
UNDECIDED	16	22.2	22.2	34.7
AGREED	34	47.2	47.2	81.9
STRONGLY AGREED	13	18.1	18.1	100.0
Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

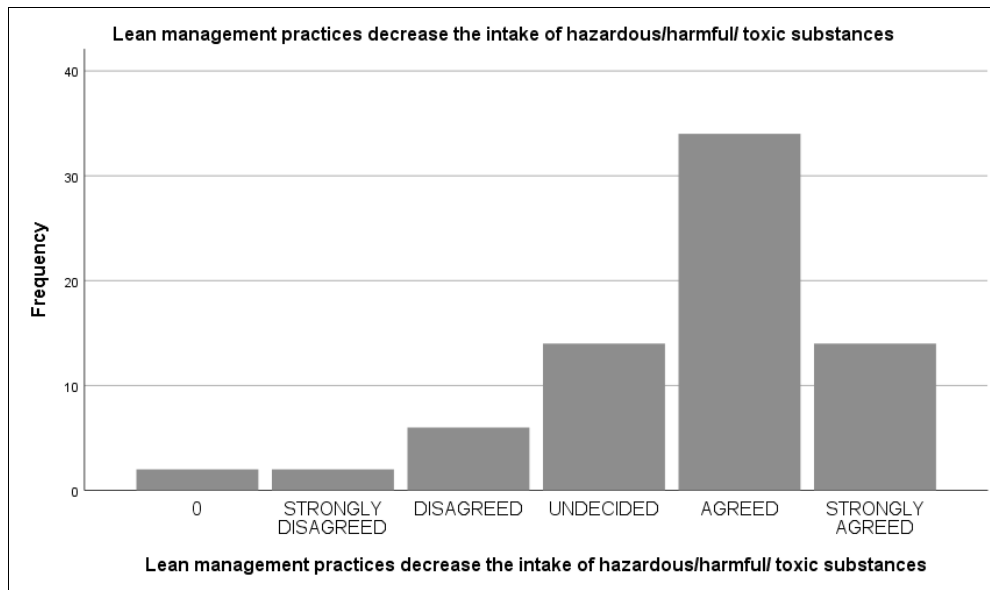
The statement the practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc proved to be agreeable by 65.2% while 34.7% disagreed or found it unfavourable .This shows that lean management practices Improves marketability of the products

Table 4.20

Lean management practices decrease the intake of hazardous/harmful/ toxic substances

	Frequency	Percent	Valid Percent	Cumulative Percent
STRONGLY DISAGREED	4	5.6	5.6	5.6
DISAGREED	6	8.3	8.3	13.9
UNDECIDED	14	19.4	19.4	33.3
AGREED	34	47.2	47.2	80.6
STRONGLY AGREED	14	19.4	19.4	100.0
Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

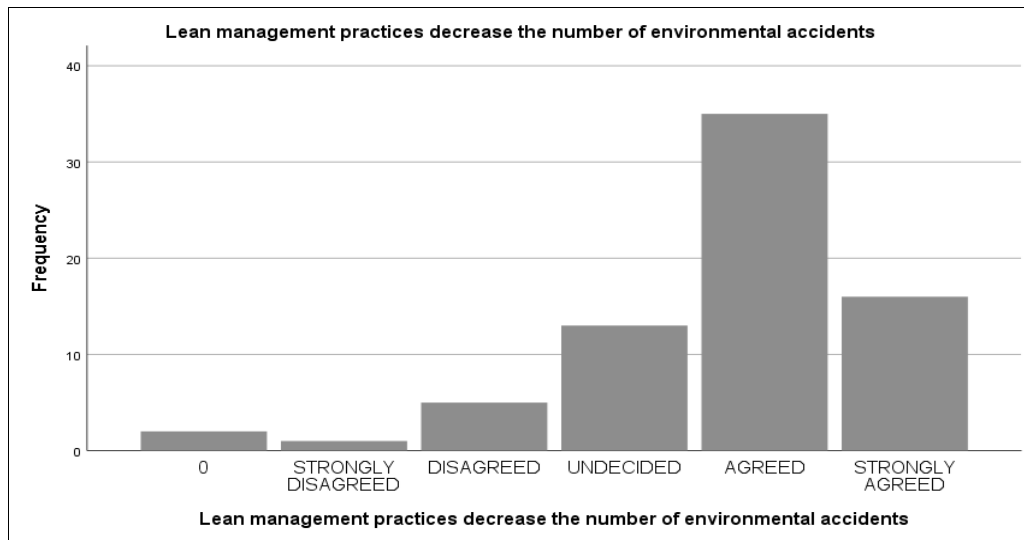
The table and figure show that out of 72 respondents, 48 (66.6%) strongly agreed or agreed that lean management practices decrease the intake of hazardous/harmful/ toxic substances while the remaining 24 (33.3%) were either undecided, disagreed or strongly disagreed.

Table 4.21

Lean management practices decrease the number of environmental accidents

	Frequency	Percent	Valid Percent	Cumulative Percent
STRONGLY DISAGREED	3	4.2	4.2	4.2
DISAGREED	5	6.9	6.9	11.1
UNDECIDED	13	18.1	18.1	29.2
AGREED	35	48.6	48.6	77.8
STRONGLY AGREED	16	22.2	22.2	100.0
Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

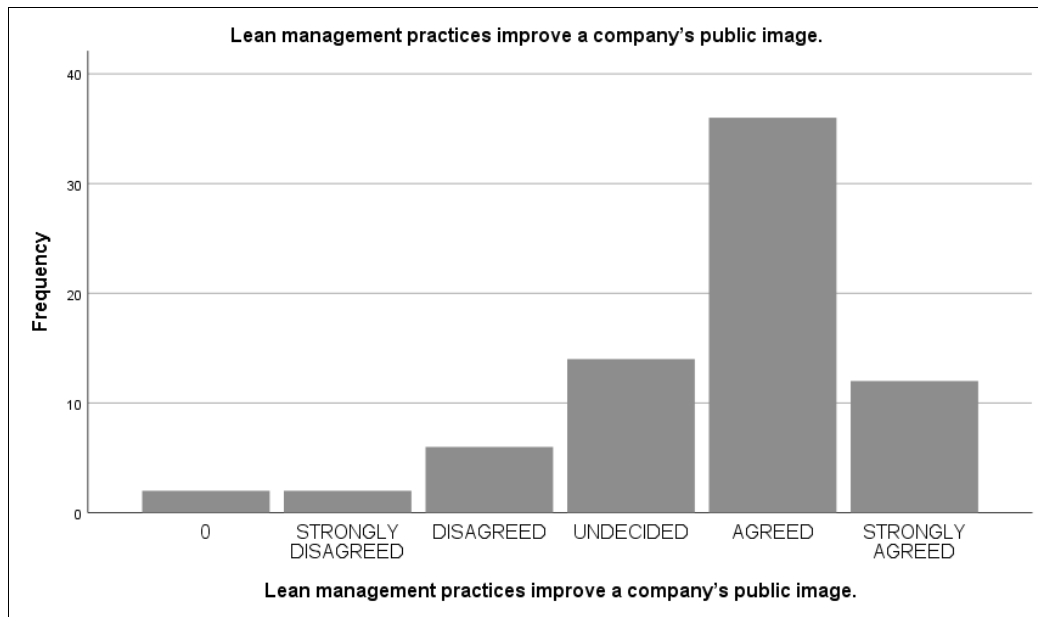
The graph shows that out of 72 respondents, 51 (70.8%) gave favourable response that lean management practices decrease the number of environmental accidents while 21 (29.2%) were either undecided or gave unfavourable response.

Table 4.22

Lean management practices improve a company's public image.

	Frequency	Percent	Valid Percent	Cumulative Percent
STRONGLY DISAGREED	4	5.6	5.6	5.6
DISAGREED	6	8.3	8.3	13.9
UNDECIDED	14	19.4	19.4	33.3
AGREED	36	50.0	50.0	83.3
STRONGLY AGREED	12	16.7	16.7	100.0
Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

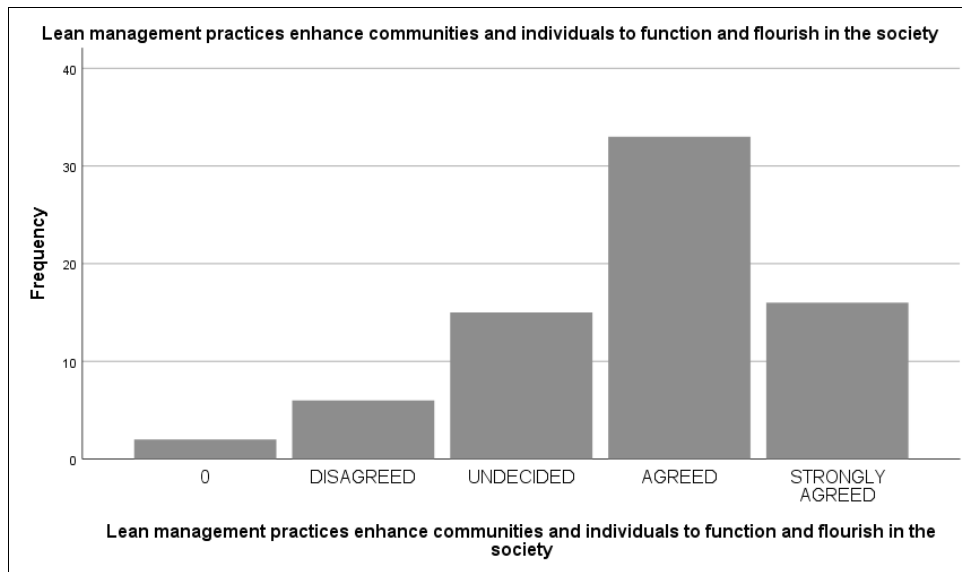
The table and graph shows that 66.7% of the responses agree that lean management practices improve a company's public image while 19.4% are undecided and 13.9% disagree

Table 4.23

Lean management practices enhance communities and individuals to function and flourish in the society

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	2.8	2.8	2.8
	DISAGREED	8	11.1	11.1	11.1
	UNDECIDED	15	20.8	20.8	31.9
	AGREED	33	45.8	45.8	77.8
	STRONGLY AGREED	16	22.2	22.2	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



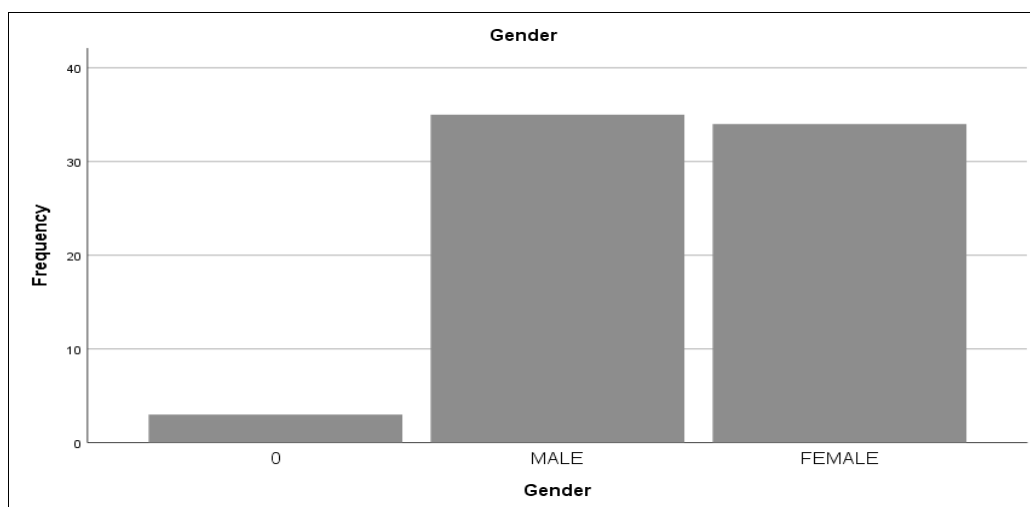
Source: SPSS, 2022

The statement that Lean management practices enhance communities and individuals to function and flourish in the society were agreed upon by 68% while 11.1% disagreed and the balance were the undecided responses using the graph and table above.

Table 4.24:

		Gender			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0	3	4.2	4.2	4.2
	MALE	35	48.6	48.6	52.8
	FEMALE	34	47.2	47.2	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



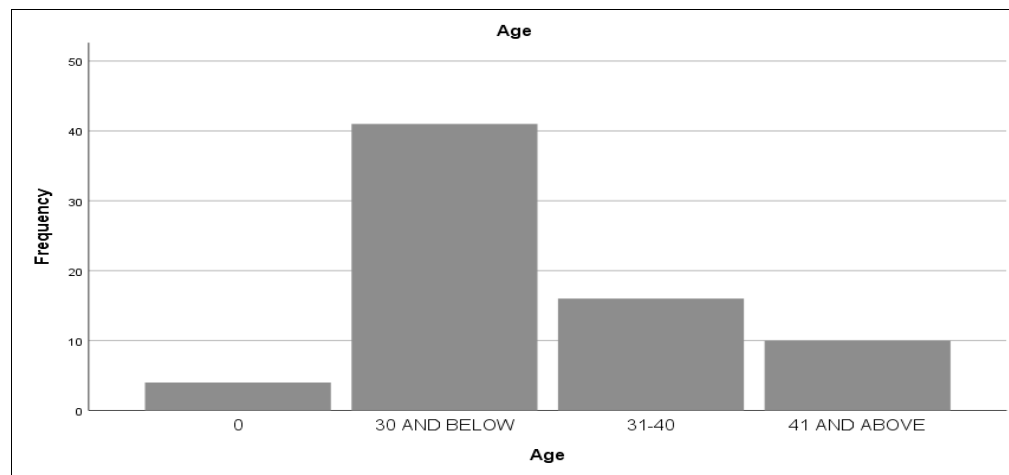
Source: SPSS, 2022

The table above shows that 35 (48.6%) of the respondents are male while 34 (34%) are female

Table 4.25:

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	5.6	5.6	5.6
	30 AND BELOW	41	56.9	57.7	63.4
	31-40	16	22.2	22.5	85.9
	41 AND ABOVE	10	13.9	14.1	100.0
	Total	71	98.6	100.0	
Missing	System	1	1.4		
Total		72	100.0		

Source: SPSS, 2022



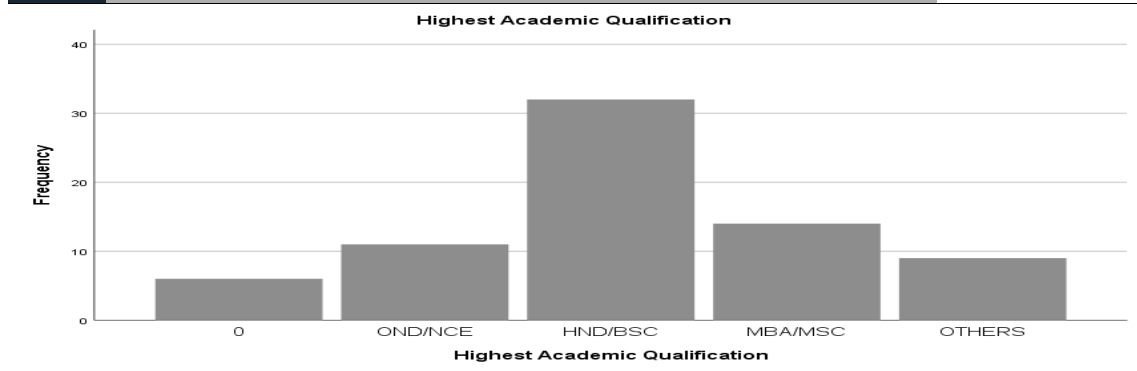
Source: SPSS, 2022

Table and graph illustrates the age distribution of the respondents. From the table we can see that we have more respondents within the ages of 30 and below years.

Table 4.26:

Highest Academic Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	8.3	8.3	8.3
	OND/NCE	11	15.3	15.3	23.6
	HND/BSC	32	44.4	44.4	68.1
	MBA/MSC	14	19.4	19.4	87.5
	OTHERS	9	12.5	12.5	100.0
	Total	72	100.0	100.0	



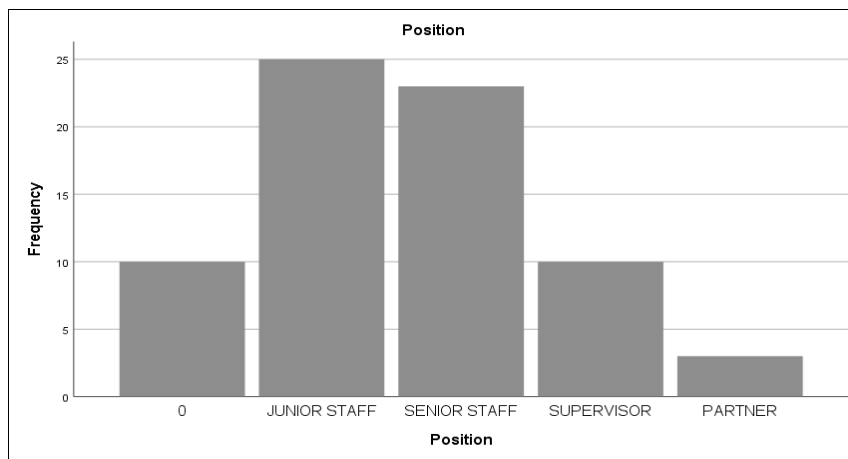
Source: SPSS, 2022

The educational qualification of respondents are presented in the table below. It shows that 32 (44.4%) of the respondents have Bachelor of Science degree while 40 (47.2%) of the respondents have either OND/NCE, Masters Degree or Ph.D and above

Table 4.27:

		Position			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	JUNIOR STAFF	35	48.6	49.3	49.3
	SENIOR STAFF	23	31.9	32.4	81.7
	SUPERVISOR	10	13.9	14.1	95.8
	PARTNER	3	4.2	4.2	100.0
	Total	71	98.6	100.0	
Missing	System	1	1.4		
Total		72	100.0		

Source: SPSS, 2022



Source: SPSS, 2022

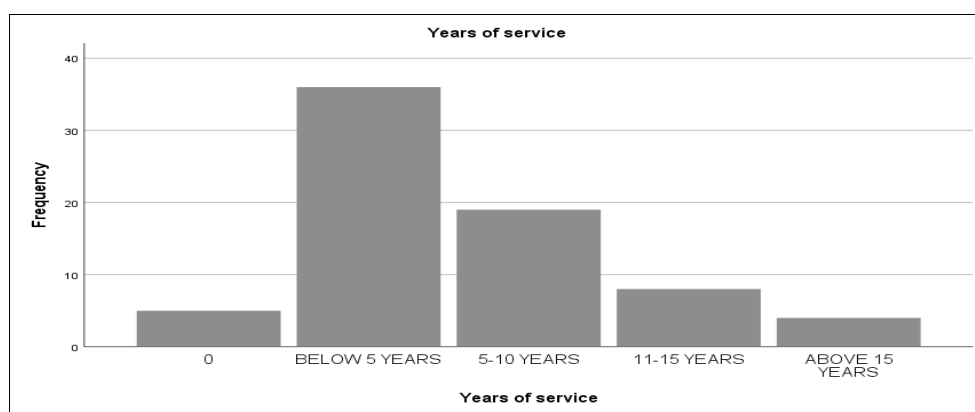
From the table above, 34.7% were junior partners, 31.9% were senior staff, 13.9% of the respondents were supervisors while 14.2% were partners.

Table 4.28:

Years of service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5	6.9	6.9	6.9
	BELOW 5 YEARS	41s	50.0	50.0	56.9
	5-10 YEARS	19	26.4	26.4	83.3
	11-15 YEARS	8	11.1	11.1	94.4
	ABOVE 15 YEARS	4	5.6	5.6	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

The table and graph above illustrates the year of service distribution of the respondents. From the table we can see that we have more respondents below 5 years.

Table 4.29:

What professional courses have you attained?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CPA	41	56.9	56.9	56.9
	ACCA	14	19.4	19.4	76.4
	CPC	5	6.9	6.9	83.3
	ICAN	12	16.7	16.7	100.0
	Total	72	100.0	100.0	

Source: SPSS, 2022



Source: SPSS, 2022

The table and graph above shows that 9.7% represents CPA, 19.4% represents ACCA, 6.9% represents CPC and 16.7% represents ICAN while 47.2% have none.

Objective 1: The impact of lean management practices on social sustainability performance in SME.

Table 4.30:

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.286	7	5.469	13.679	.000 ^b
	Residual	25.589	64	.400		
	Total	63.875	71			
a. Dependent Variable: Lean management practices help to improve Corporate Social Responsibilities						
b. Predictors: (Constant), Lean management accounting improves team spirit , Lean management practices helps to avoid cost -intensive measures, Lean management practices improve employee morale and commitment., Lean management practices help employees know more on how to reduce waste, Lean management practices enable employee to know about environmental, health and safety issues., Lean management practices improve the working environment , The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace						

Source: SPSS, 2022

From table 30, it was indicated that the independent variable(lean management practices) had a positive and significant impact on the dependable variable (I.e corporate social responsibility) at a p-value of 0.000 which is less than 0.05. hence, there is an indication that the p-value is 0.000, which indicates that the hypothesis is statistically significant at level of significance (5%); hence p-value of the test statistic is less than alpha value(0.00<0.05)

Table 4.31:

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.774 ^a	.599	.556	.632	.599	13.679	7	64	.000	2.185
a. Predictors: (Constant), Lean management accounting improves team spirit , Lean management practices helps to avoid cost -intensive measures, Lean management practices improve employee morale and commitment., Lean management practices help employees know more on how to reduce waste, Lean management practices enable employee to know about environmental, health and safety issues., Lean management practices improve the working environment , The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace										
b. Dependent Variable: Lean management practices help to improve Corporate Social Responsibilities										

Source: SPSS, 2022

From table 31, the R² is 0.599 Or 59.9%, the adjusted R² (0.556 or 55.6%) shows that the explanatory variables significantly explains variations in the dependent variable, meaning that the independent variable have a 55.5% explanatory ability of explicating the behaviour of the dependent variable.the F-test (13.679) presented in table 33 shows that the exogenous variables jointly explain variations in the dependent variations to a significant degree.

Table 4.32:

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.992	.518		1.914	.060		

Lean management practices improve the working environment	.281	.136	.241	2.067	.043	.461	2.170
Lean management practices enable employee to know about environmental, health and safety issues.	.236	.147	.239	1.607	.113	.283	3.539
Lean management practices help employees know more on how to reduce waste	-.223	.105	-.202	-2.130	.037	.695	1.439
Lean management practices helps to avoid cost - intensive measures	.519	.090	.566	5.739	.000	.645	1.551
Lean management practices improve employee morale and commitment.	-.044	.117	-.042	-.376	.708	.509	1.964
The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace	.044	.152	.043	.286	.776	.281	3.564
Lean management accounting improves team spirit	-.035	.099	-.034	-.357	.722	.674	1.483

a. Dependent Variable: Lean management practices help to improve Corporate Social Responsibilities
--

Source: SPSS, 2022

From table 32 above, the statement that the lean management practices helps to improve working environment has a t-coefficient of 2.064 with the p-value of $0.043 < 0.05$. This is an indication that it less than 0.05 and the VIF of 2.170 which is < 10 . This is an indication that lean management practices helps to improve working environment. The statement that the lean management practices enables employees to know about environmental, health and safety issues has a t-coefficient of 1.607 with the p-value of $0.113 < 0.05$. This is an indication that it is less than 0.05 and the VIF of 3.539 which is < 10 . This is an indication that lean management practices enables employees to know about environmental, health and safety issues. The statement that lean management practices helps employees to know more on how to reduce waste has a t-coefficient of -2.123 with the p-value of $0.113 > 0.05$ which means there is less agreement to the statement and the VIF of 1.439 which is < 10 . This reveals that the lean management practices helps employees to know more on how to reduce waste. The statement that lean management practices help to avoid cost-intensive measures has a t-coefficient of 5.739 with the p-value of $0.00 < 0.05$. This is an indication that it is less than 0.05 and the VIF of 1.551 which is < 10 . This is an indication that lean management practices helps to avoid cost-intensive measures. The statement that lean management practices improve employee morale and commitment has a t-coefficient of -3.76 with the p-value of $0.708 > 0.05$ which means there is less agreement to the statement and the VIF of 1.967 which is < 10 . This reveals that the lean management practices improves employee morale and commitment. The statement that the impact of lean practices has helped to reduce the amount of the health and safety incidents in the workplace has a t-coefficient of 0.286 with the p-value of $0.776 > 0.05$ which means that there is less agreement to the statement and the VIF of 3.564 which is < 10 . This is a denotation that the impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace. The statement that lean management accounting improves team spirit has a t-coefficient of -3.57 with the p-value of $0.722 > 0.05$ which means that there is less agreement to the statement and the VIF of 1.483 which is < 10 .

OBJECTIVE TWO: To determine the impact of lean management practices on economic sustainability performance in SME

Table 4.33:

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.119	7	9.874	15.538	.000 ^b
	Residual	40.036	63	.635		
	Total	109.155	70			

- a. Dependent Variable: The application of Lean management practices improves the company's profit.
- b. Predictors: (Constant), Lean management practices promotes growth in Return on assets, Lean management practices increases workers output, Lean management practices Improves marketability of the products. , Lean management practices enhances growth in ROI, Lean management performance enhances the SME to produce more., Lean management practices increases the trustworthiness of equipment. , The performance of lean management practices meets the customers satisfaction

Source: SPSS, 2022

From table 33, it was indicated that the independent variable(lean management practices) had a positive and significant impact on the dependable variable (I.e improving company's profit) at a p-value of 0.000 which is less than 0.05. hence, there is an indication that the p-value is 0.000, which indicates that the hypothesis is statistically significant at level of significance (5%); hence p-value of the test statistic is less than alpha value(0.00<0.05)

Table 4. 34:

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.796 ^a	.633	.592	.797	.633	15.538	7	63	.000	1.998

a. Predictors: (Constant), Lean management practices promotes growth in Return on assets, Lean management practices increases workers output, Lean management practices Improves marketability of the products. , Lean management practices enhances growth in ROI, Lean management performance enhances the SME to produce more., Lean management practices increases the trustworthiness of equipment. , The performance of lean management practices meets the customers satisfaction

b. Dependent Variable: The application of Lean management practices improves the company's profit.

Source: SPSS, 2022

From table 34, the R^2 is 0.633 Or 63.3%, the adjusted R^2 (0.592 or 59.2%) shows that the explanatory variables significantly explains variations in the dependent variable, meaning that the independent variable have a 59.2% explanatory ability of explicating the behaviour of the dependent variable.the F-test (15.538) presented in table 34 shows that the exogenous variables jointly explain variations in the dependent variations to a significant degree.

Table 4.35:

Source: SPSS, 2022

		Coefficients ^a									
		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.357	.373		.956	.343					
	Lean management practices Improves marketability of the products.	.035	.137	.032	.257	.798	.572	.032	.020	.373	2.681
	The performance of lean management practices meets the customers satisfaction	.040	.171	.038	.236	.814	.672	.030	.018	.219	4.564
	Lean management practices increases the	-.156	.185	-.136	-.847	.400	.563	-.106	-.065	.228	4.395

trustworthiness of equipment.											
Lean management practices increases workers output	.343	.126	.343	2.723	.008	.707	.324	.208	.367	2.722	
Lean management performance enhances the SME to produce more.	.171	.131	.164	1.306	.196	.633	.162	.100	.370	2.705	
Lean management practices enhances growth in ROI	.263	.154	.275	1.712	.092	.703	.211	.131	.226	4.428	
Lean management practices promotes growth in Return on assets	.214	.189	.199	1.133	.262	.633	.141	.086	.189	5.298	

a. Dependent Variable: The application of Lean management practices improves the company's profit.

From Table 35 above, the statement that the application of lean management practices improves marketability of the products has a t-coefficient of 0.257 with the p-value of $0.798 > 0.05$ which means that there is less agreement to the statement and the VIF of $2.681 < 10$. This shows that the application of lean management improves marketability of the product. The statement that lean management practices meets the customer's satisfaction has a t-coefficient of 0.236 with the p-value of $0.814 > 0.05$ which means that there is less agreement to the statement and the VIF of $4.564 < 10$. This shows that lean management practices meets the customer's satisfaction. The statement that lean management practices increases the trust worthiness of equipment has a t-coefficient of -0.847 with the p-value of $0.400 > 0.05$ which means that there is less agreement to the agreement to the statement and the VIF of $4.395 < 10$. This statement that lean management increases workers output has a t-coefficient 2.723 with the p-value of $0.008 < 0.05$. This is an indication that it is less than 0.05 and the VIF of 4.395 which is < 10 . This is an indication that lean management practices increases workers output.

The statement that lean management performance enhances the SME to produce more has a t-coefficient of 1.306 with p-value of $0.196 > 0.05$ which means that there is less agreement to the statement and the VIF of $2.705 < 10$. This shows that lean management performance enhances the SME to produce more. The statement that lean management practices enhance growth in return on investment has a t-coefficient of 1.712 with the p-value of $0.092 > 0.05$ which means that there is less agreement to the statement and the VIF of $4.428 < 10$. The statement that lean management practices promotes growth in return on assets has a t-coefficients of 1.133 with p-value of $0.262 > 0.05$ which means that there is less agreement to the agreement to the agreement to the statement and the VIF of $5.298 < 10$.

OBJECTIVE THREE: To examine impact of lean management practices on environmental sustainability performance in SME.

Table 4.36:

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.952	5	12.390	28.701	.000 ^b
	Residual	28.493	66	.432		
	Total	90.444	71			

a. Dependent Variable: Lean management practices help to avoid cost-intensive environmental measures.

b. Predictors: (Constant), Lean management practices enhance communities and individuals to function and flourish in the society, Lean management practices decrease the intake of hazardous/harmful/ toxic substances, Lean management practices decrease the number of environmental accidents, Lean management practices improve a company's public image., The practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc

Source: SPSS, 2022

From table 36, it was indicated that the independent variable(lean management practices) had a positive and significant impact on the dependable variable (I.e avoiding cost-intensive environmental measures) at a p-value of 0.000 which is less than 0.05. hence, there is an indication that the p-value is 0.000, which indicates that the hypothesis is statistically significant at level of significance (5%); hence p-value of the test statistic is less than alpha value($0.00 < 0.05$).

Table 4.37:

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.828 ^a	.685	.661	.657	.685	28.701	5	66	.000	1.738

a. Predictors: (Constant), Lean management practices enhance communities and individuals to function and flourish in the society, Lean management practices decrease the intake of hazardous/harmful/ toxic substances, Lean management practices decrease the number of environmental accidents, Lean management practices improve a company's public image., The practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc

b. Dependent Variable: Lean management practices help to avoid cost-intensive environmental measures.

Source: SPSS, 2022

From table 37, the R^2 is 0.685 Or 68.5%, the adjusted R^2 (0.661 or 66.1%) shows that the explanatory variables significantly explains variations in the dependent variable, meaning that the independent variable have a 66.1% explanatory ability of explicating the behaviour of the dependent variable.the F-test (28.701) presented in table 35 shows that the exogenous variables jointly explain variations in the dependent variations to a significant degree.

Table 4.38:

		Coefficients ^a							Collinearity Statistics		
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Tolerance	VIF
Model	B	Std. Error	Beta	Zero-order			Partial	Part			
1	(Constant)	.357	.373		.956	.343					
	Lean management practices Improves marketability of the products.	.035	.137	.032	.257	.798	.572	.032	.020	.373	2.681

The performance of lean management practices meets the customers satisfaction	.040	.171	.038	.236	.814	.672	.030	.018	.219	4.564
Lean management practices increases the trustworthiness of equipment.	-.156	.185	-.136	-.847	.400	.563	-.106	-.065	.228	4.395
Lean management practices increases workers output	.343	.126	.343	2.723	.008	.707	.324	.208	.367	2.722
Lean management performance enhances the SME to produce more.	.171	.131	.164	1.306	.196	.633	.162	.100	.370	2.705
Lean management practices enhances growth in ROI	.263	.154	.275	1.712	.092	.703	.211	.131	.226	4.428
Lean management practices promotes growth in Return on assets	.214	.189	.199	1.133	.262	.633	.141	.086	.189	5.298

a. Dependent Variable: The application of Lean management practices improves the company's profit.

Source: SPSS, 2022

From Table 38 above, the statement that the practices of lean management helps to reduce risks from regulatory bodies has a t-coefficient of -0.183 with a p-value of 0.855 > 0.05 which means that there is less agreement to the statement and the VIF of

4.683<10. This shows that lean management practices helps to reduce risks from regulatory bodies. The statement that lean management practices decreases the intake of hazardous/harmful/toxic substances has a t-coefficient of 3.006 with a p-value of 0.004< 0.05. This is an indication that it less than 0.05 and the VIF of 1.873< 10. This denotes that lean management practices decreases the intake of hazardous/harmful/toxic substances. The statement that lean management practices decreases the number of environmental accidents has a t-coefficient of 0.901 with a p-value of 0.371>0.05 which means that there is less agreement to the statement and the VIF of 2.216< 10. This shows that lean management practices decreases the number of environmental accidents. The statement that lean management practices improve a company's public image has a t-coefficient of 5.542 with a p-value of 0.000<0.05. This is an indication that it is less than 0.05 and the VIF of 2.079<10. This indicates that lean management practices improve a company's public image. The statement that lean management practices enhances communities and individuals to function and flourish in the society has a t-coefficient of 0.349 with a p-value of 0.728>0.05 which means that there is less agreement to the statement and the VIF of 4.405<10. This shows that lean management practices enhances communities and individuals to function and flourish in the society.

4.3 Test of Hypothesis:

The various hypotheses for this study were tested with the aid of the SPSS statistical software. The following steps were taken;

- i. Restatement of the hypotheses in the null and alternate forms
- ii. Reference to the data for analysis
- iii. The decision rule
- iv. Taking the decision.

4.3.1 Test of Hypothesis One

Restatement of hypothesis in null and alternate forms

H₀₁: There is no significant impact of lean management practices on social sustainability performance and lean management practices in SME

H₁₁: There is a significant impact of lean management practices on social sustainability performance and lean management practices in SME

The data presented in **table 4.30** were used to test this hypothesis. It was indicated that the independent variable(lean management practices) had a positive and significant

impact on the dependable variable (I.e corporate social responsibility) at a p-value of 0.000 which is less than 0.05.

The Decision Rule;

If the significant/probability value (PV) $<0.05 = \text{Reject } H_0$

If the significant/probability value (PV) $>0.05 = \text{Accept } H_1$

Decision

This result indicates that there is a positive impact of lean management practices on social sustainability performance. The significant/probability value (PV) = $0.000 < 0.05$. Therefore, the researcher rejects the null hypothesis and concludes that there is a significant impact of lean management practices on social sustainability performance.

4.3.2 Test of hypothesis two

Restatement of hypothesis in null and alternate forms

H_{02} : there is no significant impact of lean management practices on economical sustainability performance in SME

H_{12} : there is a significant impact of lean management practices on economical sustainability performance in SME

The data presented in **table 4.33** were used to test this hypothesis. It was indicated that the independent variable(lean management practices) had a positive and significant impact on the dependable variable (I.e improving company's profit) at a p-value of 0.000 which is less than 0.05.

The Decision Rule;

If the significant/probability value (PV) $<0.05 = \text{Reject } H_0$

If the significant/probability value (PV) $>0.05 = \text{Accept } H_1$

Decision

This result indicates that there is a positive impact of lean management practices on economical sustainability performance. The significant/probability value (PV) = $0.000 < 0.05$. Therefore, the researcher rejects the null hypothesis and concludes that there is a significant impact of lean management practices on economical sustainability performance.

4.3.3 Test of Hypothesis Three

Restatement of hypothesis in null and alternate forms

H₀₃: There is no significant impact of lean management practices on environmental sustainability performance of SMEs in Nigeria

H₁₃: There is a significant impact of lean management practices on environmental sustainability performance of SMEs in Nigeria

The data presented in **table 4.36** were used to test this hypothesis. It was indicated that the independent variable(lean management practices) had a positive and significant impact on the dependable variable (i.e avoiding cost-intensive environmental measures) at a p-value of 0.000 which is less than 0.05.

The Decision Rule;

If the significant/probability value (PV) <0.05 = Reject H₀

If the significant/probability value (PV) >0.05 = Accept H₀

Decision

This result indicates that there is a positive impact of lean management practices and environmental sustainability performance. The significant/probability value (PV) = 0.000<0.05. Therefore, the researcher rejects the null hypothesis and concludes that there is a significant impact of lean management practices on environmental sustainability performance.

4.4 Discussion and Findings

Objective 1: To evaluate the impact of lean management practices on social sustainability performance of SMEs in Nigeria:

The findings that there is a significant impact of lean management practices on social sustainability performance supports the framework of (Distelhorst, 2017). The study confirmed that the lean implementation should encourage companies to retain their “lean workforce”, resulting in better terms of employment and also, lean management capabilities should lower the costs of social initiatives, and in general of complying with social standards supported by (Resta, 2016).

Objective 2:

To determine the impact of lean management practices on economic sustainability performance of SMEs in Nigeria:

The findings that there is a significant impact of lean management practices on economic sustainability performance supports the framework of (Belekoukias, 2014) who found out that quality is mostly affected by Just In Time practices, claiming that as Just In Time reduces inventory levels, quality problems are more likely to be exposed,

and require immediate attention. In their study, Just In Time also had the highest impact of all Lean Management practices on speed, as well as dependability (dimensions related to on-time deliveries), and a significant positive effect on cost and flexibility. This positive Just In Time on operational performance relationship is backed by several other studies (Bortolotti, 2015; Dal Pont, 2009; Ketokivi and Schroeder, 2004; Shah and Ward, 2003).

Objective 3:

To examine the impact of lean management practices on environmental sustainability performance of SMEs in Nigeria:

The findings that there is a significant impact of lean management practices on environmental sustainability performance supports the framework of (Jabbour, 2013; Monge, 2013; Prasad, 2016; Thanki, 2016) that there are research results which point to a more direct, positive Lean management and environmental performance relationship, and that even that relationship can have a positive influence on operational performance .

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The study examined the effect of lean practices on the sustainability performance of small medium enterprises in Lagos state, Nigeria. The chapter discussed the summary and findings from the research exercise. The questionnaire for the research surveyed a cross section of commercial staffs, supervisors and partners of various small medium enterprises which include: bakeries, retail and wholesale shops and lastly water factories. The conclusions and the recommendations drawn based on the study's findings will go a long way in the Nigerian small medium enterprise performance. The research will also serve or stand as a foundation for further study on the subject matter in Nigeria. The findings will likewise assist companies especially those in the small medium enterprises sector to gain competitive advantage and be more sustainable in their performance as it becomes more difficult for them to compete on only economic level.

5.2 Summary of the Study

The focus of the study was to evaluate the effect of lean manufacturing practices on sustainable performance of small medium enterprises in the Nigerian manufacturing SMEs in Lagos State.

The first objective was to evaluate the impact of lean management practices on social sustainability performance in SME in Nigeria. Using the views of the respondents that filled the questionnaire of the project, the results of the data analysis revealed that the impact of lean management practices on social sustainability performance are statistically significant.

The second objective was to determine the impact of lean management practices on economical sustainability performance of SMEs in Nigeria. Using the views of the respondents that filled the questionnaires of the project, the results of the data analysis revealed that the impact of lean management practices on economical sustainability performance in SME are statistically significant

The third objective was to examine the impact of lean management practices on environmental sustainability performance of SMEs in Nigeria. Using the views of the respondents that filled the questionnaires of the project, the results of the data analysis revealed that the impact of lean management practices on environmental sustainability performance in SME are statistically significant.

The study reveals that it is statistically significant because it rejects the null hypothesis and accepts the alternate hypothesis.

In order to achieve the objectives stated above, 100 questionnaire were administered to the staffs, supervisors and partners of various small medium enterprises which include: bakeries, retail and wholesale shops and lastly water factories situated at Alausa, Ikeja. Out of these 100 questionnaire, 72 were returned properly filled while 28 were either returned, blank or withheld. The hypotheses were tested using the regression analysis. Based on the test of hypotheses, the null hypotheses were rejected and the conclusion drawn therefore was that the effect of lean management practices enhances the sustainability performance of small medium enterprises in Lagos state, Nigeria.

5.3 Conclusion:

This paper contributes to the literature on lean management and sustainability performance by linking lean management to sustainable performance, using the triple bottom line approach, which accounts for economic/operational, environmental, and social performance outcomes. It shows the extent to which the current state of research has addressed the effects of lean management on sustainable performance which is positively significant and provides paths to further extend academic and scientific knowledge on the matter.

5.4 Recommendations and Implication of findings

In the aftermath of conducting this review one of central objectives fixed was to identify directions for further research. Therefore, a number of issues that future research should address can be summarized:

1. There is an increasing interest in lean from SMEs in less developed countries even though its implementation is still at an early stage. The main reasons behind this situation includes the current economic growth, the infrastructure, the governmental policies, the lack of experience, and the low improvement maturity. Thus, further

extensive investigation is largely recommended to promote the use of lean among SMEs in these countries,

2. Very few researches have investigated the critical factors affecting lean initiatives in SMEs. A key item on the research agenda must therefore be the prioritization of these critical factors affecting lean initiatives so as to allow the small companies to focus resources in order to address the most prominent factors,

3. The majority of literature on lean in SMEs discusses the application of lean tools in general terms or relying on tools adopted by large companies. Hence special attention should be paid to the selection and the identification of appropriate and adapted tools and practices to use in SMEs

4. Despite the many existing frameworks proposed to implement lean in SMEs, none of these frameworks is confirmed to be simple, adapted and validated for SMEs. Hence, there is still an immense need for a new framework, which adequately considers the specific needs of SMEs and their size constraints with strong link to their overall strategy,

5. A new method for change measurement in SMEs is still needed. The focus is on adapting the existing models designed for large companies with SMEs' characteristics. This method must provide a more comprehensive, simple and not resources consuming way to support SMEs' efforts towards lean production.

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APPENDIX
RESEARCH QUESTIONNAIRE

EFFECT OF LEAN PRACTICES ON THE SUSTAINABILITY PERFORMANCE OF SMALL MEDIUM ENTERPRISES IN LAGOS STATE, NIGERIA.

Dear Respondent,

I am a 400-level student of Mountain Top University. I am writing a project on the above named topic in the partial fulfilment of the requirement for the bachelor of science degree. I will appreciate if the questionnaire is completed to the best of your knowledge with utmost sincerity to achieve credible results. The information provided will only be used for academic purpose and will be treated with absolute confidentiality.

Lean Manufacturing Practices: Lean production practices are the practices implemented and the changes made to eliminate waste and create value.

INSTRUCTION: Please read the questions carefully and tick() the appropriate answers in the box provided.

SECTION A: DEMOGRAPHIC DATAs

1. Gender: (I) Male (ii) Female
2. Age : (I) 30 years and below (ii) 31-40 years (iii) 41 years and above
3. Highest Academic Qualification: (I) OND/NCE (II) HND/B.Sc. (iii) MBA/M.Sc. (iv) Others, (please, specify).....
4. Position:(I) Junior Staff (ii) Senior Staff (iii) supervision (iv) partners
5. Years of service: (I) below 5 year (ii) 5-10 years (iii) 11-15years (iv) above 15 years
6. What professional courses have you attained? (I) CPA (ii) ACCA (iii) CPC (iv) Others, (please, specify).....

SECTION B: RESEARCH QUESTIONS

Social sustainability is about **identifying and managing business impacts**, both positive and negative, **on people**.

Please respond to the following statements by indicating the extent to which you agree or disagree with them

KEY SD=1: Strongly Disagree; D=2: Disagree; U=3: Undecided; A=4: Agree;

SA=5:Strongly Agree

S/N	LEAN MANAGEMENT PRACTICES AND SOCIAL SUSTAINABILITY PERFORMANCE	SD 1	D 2	U 3	A 4	SA 5
1	Lean management practices help to improve Corporate Social Responsibilities					
2	Lean management practices improve the working environment					
3	Lean management practices enable employee to know about environmental, health and safety issues.					

4	Lean management practices help employees know more on how to reduce waste					
5	Lean management practices helps to avoid cost - intensive measures					
6	Lean management practices improve employee morale and commitment.					
7	The impact of lean practices has helped to reduce the amount of health and safety incidents in the workplace					
8	Lean management accounting improves team spirit					

Economic sustainability refers to **practices that support long-term economic growth without negatively impacting social, environmental, and cultural aspects of the community**

Please respond to the following statements by indicating the extent to which you agree or disagree with them

KEY SD=1: Strongly Disagree; D=2: Disagree; U=3: Undecided; A=4: Agree;

SA=5:Strongly Agree

S/N	LEAN MANAGEMENT PRACTICES AND ECONOMIC SUSTAINABILITY PERFORMANCES	SD 1	D 2	U 3	A 4	SA 5
1	The application of Lean management practices improves the company's profit.					
2	Lean management practices Improves marketability of the products.					
3	The performance of lean management practices meets the customers satisfaction					
4	Lean management practices increases the trustworthiness of equipment.					
5	Lean management practices increases workers output					
6	Lean management performance enhances the SME to produce more.					
7	Lean management practices enhances growth in ROI					
8	Lean management practices promotes growth in Return on assets					

Environmental sustainability is **the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now and in the future**

Please respond to the following statements by indicating the extent to which you agree or disagree with them

KEY SD=1: Strongly Disagree; D=2: Disagree; U=3: Undecided; A=4: Agree;

SA=5:Strongly Agree

S/N	LEAN MANAGEMENT PRACTICES AND ENVIRONMENTAL SUSTAINABILITY PERFORMANCES	SD 1	D 2	U 3	A 4	SA 5
1	Lean management practices help to avoid cost-intensive environmental measures.					
2	The practices of lean management help to reduce risks from regulatory bodies. E.g. SON, NAFDAC, NCC, FIRS etc					
3	Lean management practices decrease the intake of hazardous/harmful/ toxic substances					
4	Lean management practices decrease the number of environmental accidents					
5	Lean management practices improve a company's public image.					
6	Lean management practices enhance communities and individuals to function and flourish in the society					

