Examination of Strategic Management Accounting Techniques among SMEs
(Perception of the Usefulness, Adoption, and Outcomes)

A Multiple Case Study of SMEs in the Food Processing Industry in Nigeria

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ABSTRACT

**Purpose:** This thesis examines the perception of the usefulness of SMAT, its adoption, and expected outcomes among SMEs in the food processing industry of Nigeria.

**Research Questions:** Three research questions have been addressed in this thesis; (1) What is the perception of the usefulness of SMAT among SMEs in the food processing industry in Nigeria? (2) What leads to SMEs adoption of SMAT (antecedents) among SMEs in the food processing industry in Nigeria? and (3) What outcomes (consequences) are believed to result from using SMAT among SMEs in the food processing industry in Nigeria?

**Methodology:** Qualitative studies are employed to handle empirical data gathering by semi structural interviews from four SMEs in the food processing industry in Nigeria. The data has been analyzed and thoroughly discussed in the light of previous theories, and findings are presented.

**Findings:** A significant positive perception of the usefulness of SMAT among the selected SMEs in the food processing industry in Nigeria was observed. With few exceptions, costing techniques, customer-focused techniques, and competitors' accounting are moderately and highly perceived while customer accounting techniques are not in use. The most adopted technique is target costing, and the other including; pricing strategy, competitor position tracking, brand valuation, and life cycle costing. Moreover, the management of the sample SMEs thought that benchmarking is the most suitable method to meet their operational targets. The perception of usage of SMAT positively and significantly impacts the perception of increasing customer base and obtaining competitive advantage. The findings imply that SMAT could replace the traditional management accounting practices such as budget and budgetary control in SMEs. Further, human capital is a more influential factor for SMEs than technology because human capital is better positioned to decide which technological tools are more effective for the firms to implement them in their business processes and operations to achieve the organizational goals.

**Significance of the Study:** The research work contributes towards the literature by increasing the knowledge regarding the perception of the usefulness of SMAT and the implications of SMAT practices and its awareness in the SME sector. The larger and smaller firms' policymakers, owners, and managers can benefit through
the knowledge and awareness of SMAT and its implementation in their day-to-day business operations. Moreover, the knowledge of using SMAT can enhance the effectiveness of the organizations in achieving their goals that would result in the overall prosperity of the economy of any country.

**Limitations:** The study is restricted to the perception of the usefulness of SMAT, level of adoption, and outcomes among SMEs operating in the food processing industry with a sample size consist of four companies only and limited to participants’ in particular geographic regions of Nigeria; therefore, provided information may not be valid for other areas and markets. This fact limits the global generalizability of our findings.

**Key words:** Strategic Management Accounting Techniques, Small and Medium Scale Enterprises, Food Processing Industry of Nigeria
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LIST OF ABBREVIATION

OECD: Organization for Economic Co-operation and Development

SME: Small and Medium-Size Enterprises

SMA: Strategic Management Accounting

SMIEIS: Small and medium industries equity investment scheme

NCI: National Council on Industry

CIMA: Chartered Institute of Management Accountant

SMAT: Strategic Management accounting Techniques

SMEDAN: Small and Medium Enterprises Development Agency of Nigeria

FMCG: Fast Moving Consumer Good

LCC: Lagos Chamber of Commerce

EU: European Union
1. INTRODUCTION

This chapter discusses the background and prepares the foundation of the topic of study. This is followed by a review of gaps in the research, identifying and discussing in detail the problems caused by these gaps in research, after which the aims and objectives of this research project and the research questions are discussed. Finally, this chapter concludes with the significance and delimitation in the scope of this research, followed by the study outline.

1.1 Background

Simmonds, in 1981, introduced the phrase Strategic Management Accounting (SMA) as "the provision and analysis of management accounting data about a business and its competitors for use in developing and monitoring the business strategy" (Petera & Šoljaková, 2020). So, management accounts function to furnish internally and externally oriented financial and non-financial information for carrying out managerial tasks at all levels but not only limited to planning, controlling, and decision-making (Oyewo & Ajibolade, 2019).

The enormous developments in the competitive business environment have also expanded the responsibilities of the management accounts. Therefore, they need to adopt such procedures and techniques that would help them discharge their duties more efficiently and effectively (Oyewo et al., 2019). Moreover, according to Oyewo and Ajibolade (2019), there has been criticism upon the profession of management accounting for not reinvigorating accounting practices for aligning with the dynamic external business environment. This criticism provoked the evolution of externally oriented and strategy-driven techniques known as Strategic Management Accounting Techniques (SMAT).

Noordin et al. (2009) stated that the emergence of SMAT has been contradictory and diverse due to continuous updating and addition. However, the thesis conceptualizes nineteen widely applied SMAT as adapted from the previous studies and categorized them into five groups that are; (i) costing, (ii) planning, control, and performance measurement, (iii) strategic decision making, (iv) competitor accounting and (v) customer accounting (Refer: table 5). Therefore, SMAT is described as a collection of sophisticated and modern management accounting
techniques focusing on competitors, customers, and other various strategic issues and strategic planning, controlling, measuring performance, and decision-making (Oyewo & Ajibolade, 2019).

The literature indicates that the benefits like value creation, better decision making, and obtaining competitive advantage can be achieved with the usage of SMAT (Ojua, 2017; Oboh & Ajibolade, 2017). Moreover, considering SMA as a vast filed and widespread traditional management accounting practices in the organizations and previous literate highlights SMAT as a big untapped area of research. Debates regarding the perception, level of adoption and outcomes of SMAT usages are still under discussion and unsettled (Al-Mawali, 2015).

According to Afirah and Noorhayati (2018), small and medium-sized enterprises (SMEs) make up most of the business population in most countries worldwide. They account for 99% of all businesses worldwide. Furthermore, SMEs contribute towards the country's economic growth more than the big businesses (Matthew et al., 2020); therefore, the importance of utilizing SMAT in the SME sector becomes more beneficial, not only for the growth of the SMEs itself but also for the overall progress of the economy.

According to Ojua (2016), SMEs are businesses owned independently by individuals or partners for making a profit but operate on a smaller scale. Ahmad (2017) explained that SMEs have played and will continue to play significant roles in the development, growth, employment opportunities, and industrialization of any country. Abosede et al. (2016) assert that it is now evident that they are also subjected to the same dynamic and rapid changes resulting from technological innovation and globalization as larger firms face. Therefore, in the current dynamic era, it is needed to implement such management techniques that will enhance the efficiency and effectiveness of the SME sector following the changing business environment, and the application of SMAT is one of the solutions (Pelz, 2019).

On the other hand, Oyewo and Ajibolade (2019) also elaborated that SMEs seldom reform their accounting practices because of a lack of experience, knowledge, or encouragement from top management. Moreover, Ojua (2017) revealed that SMEs face various challenges, and the
most common obstacle is that managers and subordinates may want to avoid the new practices. Possible reasons suggested include that they are afraid of the unknown or that their current knowledge and expertise could be losing importance. These issues also create a need for awareness of the usefulness of SMAT in the SME sector.

Nevertheless, to improve the understanding of the usefulness of SMAT in the SME sector, it is compulsory to analyze the perception of usefulness, level of adoption empirically, and expected outcomes in SMEs, as the literature has suggested the significance of SMAT in managing the organizations (Pelz, 2019). Anyhow, larger businesses with multiple products or services and multiple operating divisions are likely to have greater demands for a broader range of SMAT than SMEs with a much simpler operating environment (Chenhall, 2003).

Howard et al. (2015) posited that seeing SMEs as a merely small version of a large organization is incorrect because of variations in size and sophistication of operations; SMEs have the flexibility to change plans or strategies much faster than larger organizations. Therefore, SMAT is easy to adopt by SMEs that would result in better control over their productivity and customer satisfaction.

The most common variables for the classification of organizations are size, number of employees, sector, location, and technology. All these interact with each other in a complex way while categorizing the enterprises (Nwokocha et al., 2020). For reference, as a national policy in Nigeria, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) has classified the enterprises based on staff strength and assets. The organizations having number of employees from less than 10 but up to 119 with the worth of assets less than 10 but up to less than 100 million (naira) categorized as SMEs in Nigeria (National Policy on MSMEs, 2021).

In Nigeria, according to Aderemi (2021), the food processing sector is dominated by the SME sector. It plays significant role in the development of the Nigerian economy through providing employment opportunities especially in the rural areas, better income distribution, reduction of post-harvest, controlling food losses, increasing food availability for the teeming population of
Nigeria, and as a training ground for entrepreneurs before they invest in large scale enterprises (Uzoejinwa et al., 2016).

Moreover, SME food processing enterprises have essential linkages with other related industries, such as suppliers of food ingredients and food packaging materials (Maziya-Dixon et al., 2021). Therefore, the food processing industry bridges the connection between raw material production and usable food products. According to Uzoejinwa et al. (2016), the long-term objective of Nigeria's economic and national development authority is to develop a good balance between a robust industrial sector and a resilient agricultural sector.

The development of SME food processing companies has been seen as a strategic step towards achieving this goal (Aderemi, 2021). However, challenges faced by the industry in recent years are multiple and varied. Critical among them are operational uncertainty, inadequate funding, high production cost, high-interest rate, weak managerial skills, lack of modern technology, and a high failure rate (Nwokocha et al., 2020). Therefore, the need to adopt SMAT among the SMEs food processing companies in combating these challenges is crucial.

1.2 Problem Discussion

Researchers and practitioners have highlighted the significance of the implementation of SMAT for the success of any company because, in the present era of highly competitive business circumstances, it is not possible to manage the companies only with financial measures. Therefore, there is a vital requirement of such tools that are more strategically oriented like nonfinancial measures, comprehensive information systems, and supporting systems for implementing the overall organizational strategy that addresses the need for the usage of SMAT for leading the organization towards sustainable development (Petera & Šoljaková, 2020).

The need to utilize SMAT becomes more pivotal in SMEs because SMEs have been considered the most prominent business sector of any country and a significant source of reducing unemployment (ER & Nurmadewi, 2021). Zou et al. (2021) described that SMEs account for 90% of all businesses worldwide and produce more than 50% of employment. In
European countries, this percentage has reached 95% and 2/3 of total workforce (Pinkovetskaia et al., 2020) that highlights the significance of SMEs in the progress of the economy and the overall development of any country third world and developing countries such as Nigeria. Statistics presented that more than 90% of businesses in Nigeria also belong to the SME sector and approximately 80% of the workforce of Nigeria is associated with this sector (Matthew et al., 2020).

Oyewo and Ajibolade (2019) called attention that most of the literature regarding SMA is based on the conceptual level, and there is very little empirical evidence. It is unfortunate to have a high interest in developing SMAT in management sciences but to have so few empirical studies. By considering the vast field of SMAT, there is a need to conduct more research in this area (Al-Mawali, 2015). Moreover, Ojua (2016) elaborated that SMAT research among SMEs is still fragmented, and this argument has also been supported by a body of literature analyzing SMAT's usefulness over the last decades (Abdel-Kader & Luther, 2006; Marriott & Marriott, 2010; Jarvis et al., 2010; Kamilah, 2012, Kamilah, 2014).

Abdel-Kader and Luther (2006) based their research only on the use of SMAT by large companies and did not focus on the SMEs sector. However, they concluded that budgeting was the most used management tool for planning, managing costs, performance assessment, and product profitability analysis as SMAT used in large companies in the British food and drinks industry. Therefore, SMATs were underutilized and could not access the outcome of the total usage of SMAT.

According to Marriott and Marriot (2010), respondents in their study used computers to prepare management accounts and implement SMAT, but only to a limited extent. Their findings revealed that there appeared to be considerable potential for accountants to extend the management accounting services they offer to SMEs, especially in terms of the usefulness and outcomes of SMAT. Jarvis et al. (2010) described that SMAT in SMEs in the United Kingdom (UK) follow various objectives but up to the level that their employees understand, and there is a strong need to upgrade the accounting practices. However, both of the articles did not discuss the usages of SMAT in food processing companies.
Kamilah (2012) asserts that despite the growing interest in the SME market, academic research into Malaysian SMEs, including the usefulness of SMAT and the factors that influence the degree of SMAT usefulness among Malaysian SMEs, is lacking. Given this research gap, it is critical to figure out what leads SMEs to the adoption of SMAT. Therefore, the need to examine what perceptions lead to consideration of using SMAT in SMEs. Further, Kamilah (2014) noted that empirical SMAT research designed to explore technological innovation and growth is focused on larger companies to exclude SMEs, which are less likely to have the skills and ability to innovate SMAT. Moreover, they concluded that budgeting techniques used for planning, financial position, cash flows, and managing costs are among the most in SMAT in Malaysian's major large manufacturing companies.

The literature suggested that SMAT was more adopted by the developed countries like the USA, UK, Australia, Greece, and Finland (Cadez & Guilding, 2008; Abdullah & Said, 2015). Moreover, the nature of business, management competencies, and cultural values also affect the adoption level of SMAT (Ahmad & Zabri, 2015). Therefore, it has been crucial to study the perception and adoption of SMAT in different countries, more specifically the developing countries, including Nigeria, where this area is still under-researched (Oyewo & Ajibolade, 2019).

The above discussion concludes that research on the topic of SMAT in SMEs is still fragmented. As a result, neither usefulness of SMAT fully studied nor adoption and outcomes have been thoroughly analyzed. However, given the scarcity of research on the perception of the use, adoption, and outcomes of SMAT in SMEs in Nigeria (Oyewo & Ajibolade, 2019), this research work focus on the following three primary research goals; (1) What is the perception of the usefulness of SMAT among SMEs in the food processing industry in Nigeria? (2) What leads to SMEs' adoption of SMAT (antecedents) among SMEs in the food processing industry in Nigeria? and (3) what outcomes (consequences) are believed to result from using SMAT among SMEs in the food processing industry in Nigeria? The scope of this study is visualized in Figure 1 below:
1.3 Research Questions

*RQ1: What is the perception of the usefulness of SMAT among SMEs in the food processing industry in Nigeria?*

Despite the significance of SMEs, little is known about the perception of the usefulness of SMAT in SMEs (Pelz, 2019). Therefore, a few pieces of literature have looked at SMEs from the angle of analyzing the use of SMAT in this sector. Some examples are studying strategic performance measurement systems (Oro & Martin, 2015; Hudson et al., 2001) or comparing the usefulness of SMAT by Brierley (2011) between SMEs and larger firms. But, these studies can be considered old as with the advancement of technologies, the management and control systems are improving. Therefore, there is a solid need to focus on the aspect of SMAT (Oyewo & Ajibolade, 2019), particularly in SMEs in Nigeria analytically.

However, far more research has focused on larger organizations, exploring either their use of specific SMAT, like activity-based costing and strategic performance measurement systems, or the extent to which a wide range of techniques is being used, and the other factors (for instance, size of the firm, CEO attitude, internal operations) affect their use (Howard et al., 2015). Given the uniqueness (such as flexibility and less bureaucracy) of SMEs compared to larger firms, there is a need for research explicitly based on the perception of the usefulness of SMAT among SMEs.

Nevertheless, according to Uzoejinwa et al. (2016), the perception of SMAT by different SMEs in the food processing industry in Nigeria may vary depending on various circumstances...
that include competitiveness, internal operation, executive attitude, and knowledge about SMAT. The higher the support for SMAT among SMEs, the better the evaluation (positive perception) of the usage thereof by SMEs in terms of the completion of their tasks and achievements or, in other words, user satisfaction. But, hardly any research examines the usefulness of SMAT among SMEs in the food processing industry in Nigeria. Moreover, Ojua (2016) analyzed the SAMT from the perspective of combating failure in SMEs and concluded that SMEs used tools other than SMAT for conducting the businesses; therefore, the perception of the usefulness of SMAT in SMEs still needs to be explored in Nigeria.

**RQ2: What leads to SMEs adoption of SMAT (antecedents) among SMEs in the food processing industry in Nigeria?**

Scholars have noted the importance of SMAT to firms, and businesses can gain access to financial and non-financial data that can help them improve their current operations, they argue, by using SMAT (Petera & Šoljaková, 2020). SMAT, according to Ahmad (2012), can boost business profits by reducing waste and optimizing resource usage. Pelz (2019) elaborated that the widely used decision-making tools among firms had been the traditional management accounting tools, for instance, variance analysis (VC), standard costing (SC), break-even analysis (BA), and cost volume profit analysis (CVP) which are either no longer adequate in solving for today’s business challenges or they are merely paperwork that had created a mismatch between internal management practices with external dynamic business environment among SMEs. Such gaps and mismatches can be adjusted by adopting SMAT (Oyewo & Ajibolade, 2019).

According to Ojua (2017), studies have examined the influence of SMAT on large organizations, and only a few have explored the level of adoption of SMAT in SMEs, especially in Nigeria, which is the focus and objective of this research work. Ojua (2016) explained that the research on the level of adoption of SMAT by local firms in Nigeria was limited, and he further elaborated that the enterprises are unaware of SMAT but using traditional ways of managing businesses. Oyewo and Ajibolade (2019) elaborated that little is studied on the degree of adoption of SMAT by the organizations working in Nigeria, and several studies have explained that traditional management accounting (TMA) has still been
dominated (Akenbor & Okoye, 2012; Oboh & Ajibolade, 2017). Therefore, this study analyses
the adoption of SMAT among SMEs, especially in the food processing industry of Nigeria.
The selection of the food processing industry has been made due to its dominant position in the
SME sector in Nigeria (Adeyemi, 2021) and its importance in developing the Nigerian
economy (Uzoejinwa et al., 2016).

RQ3: What outcomes (consequences) are believed to result from using SMAT among SMEs
in the food processing industry in Nigeria?

Oyewo et al. (2019) highlighted the importance of adopting SMAT for becoming more
competitive through primarily improving productivity, controlling wastes, and reducing
production costs. However, whether SMAT can potentially improve the efficiency and
effectiveness of SMEs remained unanswered because most of the research had been conducted
on big organizations (Abosede et al., 2016).

In the previous literature, Argiles and Slof (2003) elaborated that the SMEs that used SMAT
for decision-making performed substantially better than those that did not use SMAT. Similarly, Chand and Dahiya (2010) studied SMAT in Indian hospitality businesses and found
that SMAT had a significant impact on various aspects of the companies, especially cost
reduction and quality improvement. In addition, banker et al. (2010) found a positive
association between customer satisfaction metrics and predicted accounting results. Thus, this
literature has revealed outcomes (consequences) for using SMAT in various companies in
different countries. However, this aspect still needs to be more researched in the SMEs
(Ahmad, 2017) of food processing companies in Nigeria.

Theoretically, it may be believed that the implementation of SMAT in SMEs would result in
positive outcomes. However, empirical research is still needed to truly judge this aspect in the
SME sector (Nwokocha et al., 2020). The consequences of adopting SMAT include measuring
multidimensional aspects of performance, gaining competitive advantage over competitors,
increasing customer base, expanding market share and accumulating financial and non-
financial information for strategic decision making that are still needed to be more thoroughly
analyzed in SME sector (Afirah & Noorhayati, 2018).
1.4. Purpose of the Study

The study examines the perception of the usefulness of SMAT, its adoption, and expected outcomes among SMEs in the food processing industry of Nigeria. The aim of the study also includes contributing to existing gaps in knowledge, improving the business environment and government policies, and valuable addition to academic literature. Therefore, the authors have gone through the existing literature and pragmatic approaches for developing a concise research-based understanding and tried to elaborate the concepts and knowledge of these aspects more thoroughly for academic and empirical contributions towards society.

1.5. Delimitations

The study is restricted to the perception of the usefulness of SMAT, level of adoption, and outcomes among SMEs operating in the food processing industry in Nigeria and will not extend. Furthermore, the delimitations of this research are restricted to four cases of the food processing industry in the SMEs sector, even though the SMEs sector has been considered the most critical business sector of any economy. Therefore, there is difficulty in the generalizability of the findings of this study. Still, nevertheless, it presents a snapshot of the existing perceptions of the usefulness of SMAT, the level of adoption, and the outcomes in the SME sector of Nigeria.

1.6. Outline of the Study

The structure of this thesis commences with the chapter of introduction that presents brief definitions and explanations of the central concepts, problem discussion with research questions, purpose, and delimitation of the study. The second chapter lays out and elaborates the scientific research methods used in management and business research. It describes the particular methodological choices that have been decided to be most suitable to conduct this research thesis considering validity, reliability, ethics, and GDPR measures research work. The third chapter describes the literature review and theoretical framework of this study. It discusses empirical reviews of previous reliable theories regarding SMA, SMAT, SMEs and their applications and consequences as described in the literature. The fourth chapter describes the brief introduction of the case companies, followed by a summary explanation of the context. In the fifth chapter, data gathering and empirical results are evaluated. The cases are
analyzed and a detailed discussion has been presented. Finally, the sixth chapter consists of a derived conclusion from this research work. It also included the significance and limitations of the study and future research suggestions in this context. A reference list and appendices are available at the end.
2. RESEARCH METHODOLOGY

This chapter lays out and elaborates the scientific research methods used in management and business research and then describes the particular methodological choices that have been decided to be most suitable to conduct this research thesis. Methodological considerations commence with a reflexive process and subsequently move on by elucidating research assumptions, philosophies, design, approaches, methods, strategies, time horizon, population and sampling, data collection methods, and data analysis techniques. Further, the reliability and validity of the research work and ethical considerations have been explained. Finally, a summary of the thesis’s method is presented.

2.1. Reflexive Process of Developing Research Methodology

In everyday life, we encounter various matters and incidents and receive new knowledge by validating or rejecting long-held ideas, reaffirming the former beliefs, and moving on our lives. Although the procedure of gathering or validating, or repudiating knowledge and beliefs may seem to be random, there exists an order and some systematic dimensions associated with it (Robson & McCartan, 2016). Therefore, research is a systematic process for finding out things and improving knowledge regarding particular matters under discussion. Still, there does not exist one best method to conduct all sorts of research. Therefore, it is vital to know various types of social research methodologies available to achieve particular research objectives (Saunders et al., 2019).

Moreover, it is necessary to justify selecting a particular research design because it creates the basis of the significance of the results and the associated limitations of the research (Bell et al., 2019). Therefore, there is a need for developing reflexivity for understating and shaping the linkage between the philosophical positioning while conducting the research. It depends upon the researcher’s assumptions and beliefs and the knowledge of the research philosophies that helps frame the overall research design. Other practical consideration may include; interest in a particular subject area, access to data, availability of financial resources, and the time constraints to complete the research project, but it is vital to recognize that the beliefs and assumptions, research philosophies, and research design all are interconnected with each other in a research project (Saunders et al., 2019).
2.2. Research Beliefs and Assumptions

The major three kinds of research assumptions and beliefs regarding knowledge development and differentiating research philosophies are; ontology, epistemology, and axiology (Saunders et al., 2019; Bell et al., 2019). Saunders et al. (2009, P.106) referred to the statement of Guba and Lincoln as; ‘Question of methods are secondary to questions of paradigm’ that denotes the significance of the basic belief or general view about the world, which leads to the decision of not only the selection of research method but also for the fundamental concepts of ontology, epistemology, and axiology. Such research assumption seems to be abstract concerning practical research considerations, but these assumptions empower scrutiny of the philosophy about reality and knowledge (Bell et al., 2019).

2.2.1. Ontology
Ontology is associated with the ‘nature of reality. It is an analytical ideology for analyzing the essence of the subsistence of something and relevant categorization (Saunders et al., 2009). The word ‘ontology’ has been derived from ‘on,’ and ‘logos’ that is a Greek word having meaning ‘being’ and ‘theory’ respectively, and by combining it becomes ‘theory of being’ or ‘theorizing about reality (Bell et al., 2019). It defines how the researcher sees and understands the research objects, meaning that how the research views the business world and management aspects and decides what to research as a research project (Saunders et al., 2019).

2.2.2. Epistemology
Epistemology has been concerned with assumptions about knowledge (Saunders et al., 2019). It deals with the theories of ‘what is known’ and ‘what can be known,’ and epistemology refers to what is acceptable as knowledge and well understood in a field of study (Bell et al., 2019). Moreover, it relates to what constitutes valid, legitimate, and acceptable knowledge and in which way knowledge can be communicated to others (Burrell & Morgan, 2017). The word epistemology has been derived from the Greek words ‘episteme’ and ‘logos’ which meanings ‘knowledge’ and ‘theory’, respectively. Therefore, epistemology can be said as a ‘theory of knowledge’ (Bell et al., 2019). Epistemology is the logical form of ontology and underpinned by it (Bell et al., 2019), and where ontology seems to be abstract, epistemology looks more obvious (Saunders et al., 2019).
considered crucially important because it facilitates the researcher in answering the question; ‘how to conduct the research project’ (Bell et al., 2019).

2.2.3. Axiology
Axiology describes the role and significance of values and ethics in the process of research (Saunders et al., 2009). It elaborates how the researchers deal with the values of the study participants and their values during the research project because it affects the credibility of the research results. Human behaviors and actions depend upon values, and these values are also the basis of revealing axiological skills to make judgments and conducting the research process (Saunders et al., 2019). The selection of philosophy also reflects the value of the researcher as it represents the technique of data collection choice. For instance, the researcher who gives more value to personal interactions would most probably select a research design in which data collection is based on the interview strategy. However, clarity about the value position is also helpful for the demonstration of; ‘what ethically appropriate is’ and explaining the point of views during the research process and finally presents the research outcomes (Saunders et al., 2019).

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Questions</th>
<th>Objectivism</th>
<th>Subjectivism</th>
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<td>Ontology</td>
<td>What is the nature of reality?</td>
<td>Real</td>
<td>Nominal decided by convention</td>
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<td></td>
<td>What is the world like?</td>
<td>External</td>
<td>Socially constructed</td>
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<td></td>
<td>What are organizations like?</td>
<td>One true reality</td>
<td>Multiple realities (relativism)</td>
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<td></td>
<td>What is it like being in organizations?</td>
<td>Granular things</td>
<td>Flowing (processes)</td>
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<td></td>
<td>What is it like being a manager or being managed?</td>
<td>Order</td>
<td>Chaos</td>
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<tr>
<td>Epistemology</td>
<td>How can we know what we know?</td>
<td>Adopt assumptions</td>
<td>Adopt the assumptions of the arts &amp; humanities</td>
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<td>What is considered acceptable knowledge?</td>
<td>of the natural scientist</td>
<td>Opinions</td>
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<td>What constitutes good quality data?</td>
<td>Numbers</td>
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<td>What kinds of contribution to knowledge can be made?</td>
<td>Observable phenomena</td>
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<td>What is the role of values in research?</td>
<td>Value-free</td>
<td>Value-bound</td>
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<td>Should we try to be morally-neutral when we do research, or should we let our values shape research?</td>
<td>Detachment</td>
<td>Integral and reflexive</td>
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<td></td>
<td>How should we deal with the values of research?</td>
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Table: 1  Research Beliefs and Assumptions (Adopted from Saunders et al., 2019, P.135)

In short, ontological assumptions refer to realities; epistemological assumptions deal with human knowledge, and axiological assumptions elucidate the ways and extend the research impact on the research process (Saunders et al., 2019; Bell et al., 2019) in table 1.
In addition to these philosophical assumptions, the above table illustrates the underlying two extreme opposing positions: objectivism and subjectivism (Saunders et al., 2019). These scientific assumptions with the concepts of objectivism and subjectivism also facilitate elaborating the inherent research philosophical concepts between the two extreme placements of objectivistic and subjectivist views.

2.2.4 Research Beliefs and Assumptions of the Thesis
It can be concluded that ontology, epistemology, and axiology are three thinking manners regarding research philosophy, and each of them impacts the thinking about the processes of the business research. Researchers believe that researches questions are the basis of determining which assumption is the most appropriate among the three; ontology, epistemology, and axiology but preferably work to considering all of them because all these assumptions are associated with each other while working on any research project (Saunders et al., 2009).

Research questions discussed in this thesis are researched through qualitative research design that is more concerned with the personal interactions, personally accessing the social phenomena, explained the reality through words but not numerically or statically analysis. In the present three research questions, the ontological aspect is described as ‘constructionist’ that elaborates the detailed understanding of the circumstances for understanding the reality. However, epistemological positioning highlights as ‘interpretivism' sense for understanding the social world by analyzing the participants’ interpretation associated with that social world. As the research strategy of the thesis is ‘case study’; therefore, the axiology aspect elaborated the occurrence of personal interactions and data collection based on the ‘interview’ strategy. Anyhow, the five philosophies (positivism, critical realism, interpretivism, postmodernism, and pragmatism) have been divided into the main categories of the assumptions of ontology, epistemology, and axiology (Saunders et al., 2019).
2.3 Research Philosophy

According to Saunders et al. (2019), research philosophy is the philosophical approach a researcher adopts to disclose the researcher’s vision about understanding the world, which is consequently revealed in the research study. Research philosophy, therefore, is pertinent in a research methodology. Furthermore, it describes the researcher’s view concerning the world and drives the researcher's strategy. Therefore, the essence of the researcher’s ideas concerning the world is to improve knowledge by contributing through the research study.

There are five main research philosophies identified in management and business studies: positivism, critical realism, interpretivism, postmodernism, and pragmatism (Saunders et al., 2019; Bell et al., 2019; Taylor & Medina, 2011). Every research philosophy has its importance and serves a specific motive to create unique knowledge (Taylor & Medina, 2011).

2.3.1. Positivism

Positivism philosophy is associated with objectivism through an ontological lens that means ‘observable social reality’ and having characteristics of an epistemological assumption that generate ‘law-like’ results for generalizations. Positivism considers reality to be static and observable which can be described through an objective viewpoint without tampering with the object under study. (Saunders et al., 2019). This approach leads to the use of neither scientific methods for yielding original facts and data with a presumption that there is neither biasness nor human influence for creating accurate knowledge. The positivists’ debate that the object under study should be isolated and then be observed repeatedly. Therefore, putting positivism into consideration, researchers attempt to apply natural science approaches in studying social reality and are closely linked through deductive reasoning (Taylor & Medina, 2011).

Positivist research considers social entities as real physical objects and epistemologically will discover measurable and observable facts and result in meaningful and credible data. The causal relationship among the variables of the data is created, and outcomes are generalized. Based on these results, future prediction of the occurrence of potential events and behaviors is also possible (Bell et al., 2019). Hypotheses are developed based on presented theories, knowledge, and observable realities tested to confirm these theories, knowledge, and
observable facts. If fully or partially rejected, then it would be helpful for the development of theory and knowledge that will be tested again by further research. Positivists researchers are independent and detached from the data and research and conduct what they believe are value-free research methods (Saunders et al., 2019).

2.3.2. Critical Realism
Critical realism has been proposed by Saunders et al. (2019) to elaborate on what has been seen and experience in the context of the structure of reality. Here, the most significant philosophical consideration is ‘reality,’ and it is more associated with the assumption of ontology. According to critical realists, reality has been seen externally and independently but does not directly through observations or knowledge about it (Bell et al., 2019). Through the human five senses, see, touch, hear, taste, and smell, the perception of reality is understood, but the actual reality could be more than that. Critical realists call attention to the matter of decisiveness through our senses (Saunders et al., 2019).

Therefore, critical realism research pivots on underlying mechanisms and causes for explaining the observable organizational affairs that form the profound social structures of the organizational life, and based on it, the researcher usually selects the theme of deep historical analysis of organizational and social structures and analyze what changes occurred with the passage of time for elaborating the reality (Saunders et al., 2019)

2.3.3. Interpretivism
Saunders et al. (2019) and Bell et al. (2019) presented interpretivism as a critique from the subjective perspective on the philosophy of positivism. Saunders et al. (2019) elaborated that humans create meanings that are distinct from physical phenomena, and interpretivism analyzes these meanings. Moreover, Bell et al. (2019) described the difference between people from objects and understood social actions and subjective intentions. However, the views about the subjective interpretation of the researchers have also important in this respect (Taylor & Medina, 2011) because interpretivism also has developed many philosophical standards like hermeneutics, symbolic interactionism, and phenomenology (Saunders et al., 2019).
In the context of interpretivism, it is believed that human and their social environment cannot be examined in the same method because people from dissimilar cultural background, having distinct circumstances construct different meanings at a different point in time, and difficult to make a ‘universal law’ in this matter which positivist always try to develop (Saunders et al., 2019). Therefore, the purpose of interpretivism research is to generate and develop new, better understating and interpretation of human beings with their social contexts (Saunders et al., 2019).

### 2.3.4. Postmodernism
Postmodernism gives importance to the value of language, power relations and seeks to question the accepted direction of thinking (Saunders et al., 2019). Within this approach, it is believed that there exists no abstract method of recognizing ‘right’ or ‘true’ way for describing the world, but ‘right’ and ‘true’ is that what decided ‘collectively’ (Saunders et al., 2019), therefore, this approach perceives various versions are reading reality regardless of considering right or wrong (Bell et al., 2019). Chia (2014) also asserts that postmodernism believes that language based on its classification and categories can make any sense of order meaningful otherwise, any purpose of the order will be foundationless and provisional.

Postmodernism attempts to make what has been excluded or left out clearer by deconstructing and highlighting the hidden reality like dismantling an old construction into mortar and bricks that build it up. Postmodernists focus on the processes of the organization, managing and controlling procedures rather than the organization as a building and recognizing power structures among researchers and subjects that develop the knowledge creation during the process of research and an intellectual way of disclosing hidden realities (Saunders et al., 2019).

### 2.3.5. Pragmatism
The philosophy of pragmatism highlights that the concepts are considered relevant only if they can support actions. It is distinct from the earlier described four philosophies because its idea more about practice than that of only a theoretical framework. Pragmatism attempts to reconcile subjectivism and objectivism, values and facts, rigorous and accurate knowledge, and contextualized experiences. It believes that the solution to the problems lies in action. The
exploration in pragmatism starts with a dilemma, and the goal is to come up with realistic ideas for potential actions. The most popular pragmatism methods involve a combination of quantitative and subjective techniques.

Consequently, pragmatism makes sense in a multi-scenario setting. It has been done by considering theories, ideas, hypotheses, concepts, and research outcomes in abstract forms and viewed empirically, and practical consequences are observed. Thus, the practicality of the ideas and concepts are actual ‘reality for the pragmatists, and knowledge has been gained through practical uses and success (Saunders et al., 2019).

2.3.6 Research Philosophy of the Thesis

The qualitative research design prevails around the thesis that is a general orientation about the research work and aligns with the research questions. This research will examine the usefulness of SMAT application among SMEs to highlight the significance of SMAT in SMEs based on theories and practical knowledge. Furthermore, it may contribute to the business research literature. The researchers have selected interpretivism as the most appropriate research philosophy for the current research because humans create meanings and should not be studied as physical phenomena (Saunders et al., 2019). Therefore, interviews have been conducted for structured and in-depth discussions to develop a comprehensive observation. For this purpose, the researchers have to contact and possibly personally visit the relevant personnel. According to Saunders et al. (2019), different people's different experiences create different meanings and social realities under different situations.

Moreover, this research work comprises multiple cases (small sample) and has been categorized as qualitative studies, which both are the attributes of interpretivism. In this research work, the reality has been perceived and observed through various individuals (Bell et al., 2019) who are considered social actors employed in the SMEs sector of Nigeria's food processing industry. They have interpreted their realistic views about the SMAT in SMEs. As a result, rich knowledge regarding the topic has been gathered from the case companies.
2.4. Research Approach
Research projects involve the utilization of theory. Therefore, the research project design also depends on the research's intended concern about theory building or theory testing (Saunders et al., 2019), associated with inductive, deductive, and abductive (Easterby-Smith et al., 2021).

2.4.1 Inductive Approach
An inductive approach is associated with collecting data for exploring a phenomenon, and often theory is built in the form of a conceptual framework (Saunders et al., 2019). Patterns, regularities in premises, and resemblances have been observed for reaching conclusions or generating theory (Eriksson & Kovalainen, 2015). The inductive approach is flexible, and the researcher is more concerned with the areas where events regarding the research contexts are taking place; therefore, a small sample of subjects is considered more helpful in conducting such research (Bell et al., 2019).

2.4.2 Deductive Approach
A deductive approach is associated with an existing theory developed by studying the academic literature and literature guidance; a research strategy is formulated for testing that theory. So, a theory is developed; accordingly, hypotheses are prepared. A research strategy has been designed to test the hypothesis, and after analyzing the tests, the final results are presented (Saunders et al., 2019). Therefore, the knowledge derived through the deduction approach has been based mainly on existing literature (Bell et al., 2019). In this approach, a causal correlation between variables and concepts is analyzed through developing relevant hypotheses and usually collecting quantitative data because quantitative data make the operationalization of the research easy. The deduction approach is also helpful for generalizing the results (Saunders et al., 2019).

2.4.3 Abduction Approach
The induction approach moves from data to theory, and the deduction approach moves from theory to data. Still, the abduction approach combines both the concepts of deduction and induction together, and in fact, most management and business researchers do the same (Easterby-Smith et al., 2021). Data is gathered to explore the phenomenon, identify themes, and explain patterns completed for generating new or improving existing theories that have
been subsequently tested through collecting additional data. The process goes on until more reliable results are achieved (Saunders et al., 2019).

### 2.4.4 Research Approach of the Thesis

The approach of this study is abductive because the study is concerned with the generation of new ideas and theory resulting from the data and also looks at previously researched phenomena from various perspectives and already available theories that are in line with the approach of abduction that is combining both the concepts of deduction and induction together. Data has been collected through semi-structured interviews to deeply understand the research phenomenon under consideration and answer the research questions, and analyzed in the light of already established literature and theories for reaching concrete results. Moreover, following the problem discussion and the research gap abductive approach is the most suitable choice for illustrating the social phenomena and contributing the developed theories relevant to the concepts of SMAT. However, the study depends upon the assumptions and conventional theories related to the topic. Therefore, the described theories and knowledge gathered through interviews are analyzed and categorized to develop the findings.

### 2.5 Research Design Formulation

The general plan for answering the research questions has been known as research design. It explained the conscious choices for the technique(s) of collecting data, the method of analyzing data, discussion about ethical matters, and inevitably encountered practical constraints during the research work (funding, locations, excess of data, time limitation) (Saunders et al., 2019).

#### 2.5.1. Methodological Choices

While categorizing broadly, three methodological choices are known as quantitative, qualitative, and mixed-method research designs (Easterby-Smith et al., 2021). The basis of differentiation among these research designs is the category of data; whether it is numeric (numbers) or non-numeric (images, words, audio or/and video recordings) data or a sort of data that contain both numeric and non-numeric characteristics (Saunders et al., 2019).
2.5.1.1 Quantitative Research Designs

Philosophical assumptions regarding quantitative research have been linked with positivism and deduction approach, specifically when combined with highly structured and predetermined techniques for data collection, and data have been analyzed for testing the theory. This kind of research investigates the relationships between the computed numerically and analyzed variables through statistical and graphical measures (Bell et al., 2019). Generally, data is collected through the research strategy of surveys and standardized questionnaires that are developed in such a way that would be equally understandable by each respondent in the same sense (Saunders et al., 2019).

However, it is essential to know that strategies of research like a case study, grounded theory, and action research usually associated with qualitative research can also be used in quantitative research (Saunders et al., 2019). Such research has been considered independent from those who are being researched; usually, the sampling technique of probability has been used, and the outcomes are generalizable (Bell et al., 2019). Moreover, quantitative research is termed as ‘mono method study’ when single data gathering and analyzing procedures have been utilized and when the research design consists of more than one technique of the collection of quantitative data and relevant procedures of analytics, it is known as ‘multi-method study’ i.e. the way of a collection of quantitative data through questionnaires as well as structural observations and analyzed by statistical techniques (Saunders et al., 2019).

2.5.1.2 Qualitative Research Designs.

Qualitative research is connected to the philosophy of interpretivism and generally to the inductive approach for developing theory (Bell et al., 2019). It has been considered interpretive due to the development of the subjective sense, and socially constructed interpretation revealed regarding the phenomenon understudied where an emergent and naturalistic research design has been utilized for building theory (Eriksson & Kovalainen, 2015). The researcher is usually required to become a part of the research context through physical participation in natural settings for a deeper understanding. Therefore, the research has not been considered independent from those being researched (Bell et al., 2019). However, it is also an established
practice to use an abductive approach for developing theory where inferences are originated inductively and tested deductively (Saunders et al., 2019).

There are no standardized ways of collecting data; therefore, there are chances of altering the procedures and questions during the research process, but the success depends not only on getting a physical approach to respondents but also on obtaining cognitive effusion to data. Data can be gathered through semi-structured interviews with relevant analytical procedures and research design in known as mono-method qualitative study whereas if the data is collected by using more than one method like interviews and diary accounts and through other qualitative resources. It is called a multi-method qualitative study (Saunders et al., 2019). In qualitative research design, usually, a conceptual framework is developed. The non-probability sampling technique is utilized, and the results cannot be generalized due to the case studies' nature of research strategies (Bell et al., 2019).

2.5.1.3 Mixed Method Research Designs.
Pragmatism and critical realism are the two philosophical assumptions. The inductive, deductive, or abductive approaches for developing theory have been considered relevant to the research designs of the mixed method. It is a concept of utilizing the multiple modes of research that incorporate both techniques used for data collection and analytical procedures of qualitative and quantitative in one research project (Saunders et al., 2019). The mixed methods research integrates qualitative and quantitative methods in various ways that may result in simple, complex, concurrent, or sequential forms. These different kinds of combinations of qualitative and quantitative methods are mixed depending on the nature of research questions and intended research objectives aimed to be achieved (Saunders et al., 2019).

2.5.1.4. Methodological Choice of the Thesis
Grover (2015) posited that there must also be a selection from either qualitative, quantitative, or a mixture of both. The research work consists of data collection techniques through only interviews and the relevant analytical-qualitative procedures; therefore, it is a mono-method qualitative study.
Moreover, quantitative research focuses on the objective of the researcher through numeric data collection and analytics. In contrast, qualitative research focuses on the respondents' views that are generally obtained through conducting interviews to achieve the researcher's objectives. Quantitative research explores cause and effect relationships between variables, while qualitative study explores the connection among variables based on respondents' perceptions. Qualitative research creates closeness between the researcher and the respondents, whereas quantitative analysis does not consider the resemblance between the researcher and the data gathered. Qualitative research generates theories, while quantitative research tests theories (Easterby-Smith et al., 2021). This study focuses on qualitative research as it will require the researcher to personally engage with the respondents to conduct interviews to gain their perception and understanding of the concepts under study.

2.5.2. Research Design Purposes

Research design aims to furnish either explanatory, descriptive, exploratory, evaluative study or any combinations of these but depending largely upon describing research question(s) (Saunders et al., 2019).

**Explanatory** research is adopted to solve a problem that was not researched well in the previous study; it sets priorities, the operationalized definition of terms, and produces a better model to the previous issues. It answers the questions of “what” and “how”. **Descriptive** research adopts a scientific approach and involves observing and describing the object's behavior under study without interference. Such research addresses the questions of “how,” “where,” “who,” and “when.” **Exploratory** research is used to clarify or define a problem and answers questions of “why”, “how” and “when”. Finally, evaluative research is a study that uses standard research methods in evaluating the object of study and answers questions of “when”, “where”, “which” or “who” (Easterby-Smith et al., 2021).

This study will contribute to gaps identified in knowledge as stated in the research problems and addressed in the three research questions. Therefore, this study considers explanatory research appropriate for conducting this study.
2.6. Research Strategy

Research strategy is the research method that helps the researcher to carry out the objective of the research. Saunders et al. (2019) posited that research strategy is the plan that assists the researcher in providing systematic answers to research questions outlined in a study. This, therefore, means that the research strategy helps guide the researcher in the data collection method and to contribute to gaps identified in knowledge. Consequently, it is vital to understand the types of research strategies mentioned to select a suitable one for this study.

2.6.1. Experiment

The strategy of experiment research has roots attached with natural sciences and laboratory-based research; however, its features can be found in social science and psychological research (Saunders et al., 2019). For instance, in experimental strategy, the aim is to analyze the likelihood of the change in independent variables bring about changes independent variables (Bell et al., 2019). The nature of variables could be independent, dependent, mediating, moderating, confounding, and controlling (Saunders et al., 2019). In experiment research, predictions are anticipated to be named ‘hypotheses’ by the researchers instead of research questions and analyzed whether any relationship exists among the variables. A standard experiment consists of two kinds of an opposing hypotheses known as null and alternative hypotheses. The null hypothesis is tested statistically at a usually prescribed value of 0.05 and considered accepted if the likelihood of being no statistically more significant than that specified value (0.05) and alternative hypothesis has been considered rejected that presents that alternative hypothesis is true. This research strategy is used in explanatory and exploratory research for answering ‘what’, ‘why’ and ‘how’ questions (Saunders et al., 2019).

2.6.2. Survey

Generally, the survey strategy is correlated with the research approach of deduction (Bell et al., 2018). Survey strategy has been a very popular and common strategy in the field of management and business research and mostly used to respond to ‘what’, ‘where’, ‘who’, ‘how many’ and ‘how much’ questions and used for descriptive and exploratory research (Saunders et al., 2019). The research tool utilized for the collection of data in survey strategy is called ‘questionnaire’ and helpful in economically gathering standardized data from a decent-sized population and allowing easy comparisons (Bell et al., 2019).
The most fundamental reason for survey strategy is collecting responses in line with essential and particular questions. Following the research questions and targeted audience, the question can be addressed in various formats like self-completion, face-to-face interview, telephone interview based upon a suitable Likert sale that the access to the target audience has made the internet easier (Robson & McCartan, 2016). The data collected through a questionnaire is quantitative and has been analyzed quantitatively through inferential and descriptive statistics, and all the findings are statistically represented. It also facilitates explaining the cause and effect relationships among the variables by developing a conceptual framework and research models (Saunders et al., 2019).

2.6.3. Archival Research

The data digitalization and online access to those data and archives have made it easy to adopt archival research strategy, also known as documentary strategy. Internet facilitates access to the research to the public, private and governmental organizations' digital records, media documents, and similar online data that can be accessed from anywhere in the world. Such record consists of articles, published reports, national statistics, policy statements, agreements, press releases, diaries, emails, blog postings, advertising posters, and textual, audio, and corporate video information on their websites, administrative records, web images, and a lot more such kind of data (Saunders et al., 2019).

The data gathered through such sources is called secondary data having good quality and consists of qualitative and quantitative information, such as the companies' annual reports. Thus, archival research is an efficient and effective research strategy but depends upon the nature of the research question(s) and access to the appropriate secondary data availability (Bell et al., 2019).

2.6.4. Case Study

Case study research strategy is associated with in-depth study regarding a particular phenomenon by experiencing the real-life environment (Eriksson & Kovalainen, 2015). In management research word ‘case’ may represent a human (male or female manager), a group of people, a business entity, an association, a process of manufacturing or controlling, an event of an annual meeting or any festival, and many other types of the area could be treated as
‘case’ under consideration and research. But, the most challenging aspect of a case study is selecting a subject as ‘case’ and then defining the scope and boundaries for conducting ‘study’. The uniqueness of the strategy of case study lies in its real-life environment settings and understanding the factual context during running a research project that leads to empirical descriptions and theory developments (Bell et al., 2019). The most common positivist criticism of the case study is undersized samples in the research and its inability to generalize results (Saunders et al., 2019).

2.6.5. Ethnography
The research strategy of ethnography is associated with the scientific elucidation of peoples, social worlds of groups, and their cultural values, including their habits, customs, norms, mutual differences, etc. The strategy has its origin from colonial anthropology, and during the period the 1700s to 1900s was developed for studying culture and is also considered the preliminary qualitative nature of research strategy (Saunders et al., 2019). To conduct research by adopting this strategy, the researchers are obliged to become a part of those objects that are under study and talk and observe them for producing detailed cultural values based on shared beliefs, interactions, behavior, languages, events, and rituals that structured their lifestyles (Bell et al., 2019). The most challenging thing for the researchers being an arbiter in this research strategy is not only ‘understanding’ but also ‘telling the story and describing the culture and norms of other people at the same level and feelings that participants have in different occasions because human behave differently even in the same society and human attitudes changes suddenly (Saunders et al., 2019).

2.6.6. Action Research
In 1946, the phrase of Action Research was first used by Lewin that. It is the iterative and emergent process of an examination designed to develop a solution for any organization's problem by a collaborative and participative approach through sharing of knowledge. The results are implemented and beneficial for the organization during and after completing the research project (Saunders et al., 2019). Bryman and Bell (2017) described action research as ‘research in action rather than research about action’. The prime purpose of the action research strategy is to encourage organizational learning to produce practical results by recognizing
problems and then properly planning, taking, and evaluating the actions to cope with those issues empirically (Bell et al., 2019).

2.6.7. Grounded Theory

Grounded theory has been considered a systematic course of action primarily but not exclusively implemented in qualitative research executed by social scientists. Glaser and Strauss developed a grounded theory in 1967 in response to ‘extreme positivism’, a kind of social research of that time to legitimize qualitative research (Saunders et al., 2019). Grounded theory was evolved as a method for analyzing, interpreting, and explaining the meanings that social actors build to establish the sense of their day-to-day experiences in specific contexts (Bell et al., 2019).

The theory has been 'grounded' in actual data, which means the interpretation and theory development occurs after the data has been gathered; therefore, prior data collection and analysis are required for grounded theory. It provides a structured and systematic approach for collecting and analyzing qualitative data, matches qualitative research characteristics, and leads to an inductive approach (Saunders et al., 2019).

2.6.8. Narrative Inquiry

Narrative inquiry has been associated with qualitative research, which developed in management sciences and knowledge management through streamlining information management (Bell et al., 2019). A narrative is considered as a ‘story’ regarding any personal accounts that spell out an event or series of events. In the context of narrative inquiry research strategy, the researcher considers that the participants experiences could better be retrieved through collecting and investigating as absolute stories instead of gathering data through some specific and structured questions that were asked during the interviews (Saunders et al., 2019). The uniqueness of this research strategy lies that participants are encouraged to tell the whole events and matters according to their points of view like a story that facilitates the researcher to connect and preserve the sequence of the actions, events, and the consequences chronologically and in a more meaningful way (Bell et al., 2019).
Therefore, narrative inquiry pivots on the management of knowledge of humans rather than only collecting and processing the data and highlights the significance of knowledge and experiences. This research strategy appears at the beginning of the 20th century. Data that consists of stories, letters, autobiographies, conversations, family stories, and life experiences are considered the basis of research analysis. It is implemented to analyze knowledge theory, cognitive science, education studies, sociology, and organizational studies (Saunders et al., 2019).

2.6.9. Research Strategy of the Thesis

Research strategy is the general plan adopted to answer posed research questions; therefore, the type of research strategy largely depends on the research question's nature (s). For instance, the experimental strategy utilizes statistical analysis and is more quantitative, while a case study is more appropriate for qualitative research (Saunders et al., 2019; Bell et al., 2019).

The case study approach helps a researcher present a complex object of study in a simple way to understand. The case study approach is beneficial to explain a deeper understanding of an event of interest in a real-life situation, and this approach is used extensively in multidisciplinary research, most especially in social science (Crowe et al., 2018). Therefore, this study adopts a case study approach since the purpose of this study is to examine the usefulness, adoption, and outcomes of SMAT applications in SMEs in Nigeria.

Yin (2014) described case study as “the process of learning about the case(s)” and asserts that a case study helps in analyzing, investigating, and explaining events in the everyday scenario in which they happen. He further explained the two dimensions, which develop four main kinds of case studies. For example, the following figure explains the relationship of single and multiple cases:
According to Yin (2014), a single case study is suitable for where the research object is unique, rare, or only explicitly adopted for such study while multiple case studies compare various cases in research work. SMAT, due to its usefulness, is not specifically meant for a sector, industry, or organization; therefore, a multiple case study approach is well suited to carry out this research. Furthermore, multiple case studies have more advantages than a single case study due to the available options for comparing one case to another and contributing to existing literature and knowledge.

Further, Yin (2014) stated that if the case study can be viewed from just one perspective, the holistic approach is suitable; otherwise, the embedded case study is better when the object can be divided into sub-parts. This research will take a holistic approach with this interpretation, even though it will look at four separate cases to see the usefulness, adoption, and outcomes of SMAT applications in SMEs. The experiences of professionals, accountants, financial analysts, managers, and business owners are reflected in the four cases. Data will be obtained from these different units, but it has been presented holistically to achieve this study’s objective.
2.7 Time Horizon
In research, time horizon explains the scope of the study concerning the data under consideration, whether it represents a snapshot of a particular time or a series of events and snapshots (daily perspective) of a given time period. The literature describes time horizon in two ways; cross-sectional and longitudinal, whereas cross-sectional denotes snapshot at a specific time, and longitudinal represents more similar to a diary but largely depends upon the research question (Saunders et al., 2019).

2.7.1 Cross Sectional
According to Saunders et al. (2019), cross-sectional studies, also called transverse studies, represent the sort of research studies in which particular phenomena have been studied at a specific time. For instance, the research projects that are conducted during academic courses have to be completed in a specified period. Usually, cross-sectional regression is used in such studies to determine the existence and degree of the causal relationship between independent and dependent variables under consideration at a certain point in time. Often, cross-sectional studies employ the survey strategy and are attached to quantitative research designs but could be a qualitative or mixed-method design, for example, conducting interviews during a short-term period (Saunders et al., 2019).

2.7.2 Longitudinal
The main features of longitudinal studies are its scope of research for studying changes and developments and involved examining the same phenomena (e.g., people) over long or short periods (Bell et al., 2019). It has also been associated with observational studies. For instance, such type of studies are used in clinical psychology and social personality for studying sudden changes in behaviors, emotions, and thoughts with the passage of time and development across the span of life; for instance, in sociology, studying the changing and events from one generation to another; and studying consumer trends in consumer research (Saunders et al., 2019).

It is different from the cross-sectional studies because, in cross-sectional research, the same characteristics of different individuals are compared. In contrast, longitudinal studies consist of
studying the same objects for a long time and observing and analyzing the changes and developments for producing more accurate and consistent results.

### 2.7.3 Time Horizon of the Thesis

Time horizon has also been considered as a critical element of the research plan while conducting a research project. As it is aimed to complete the study (particular phenomena) during a period fixed for the thesis (specific time), therefore, the cross-sectional design will be the most suitable for this research work, as suggested by Saunders et al. (2019) and Bell et al. (2019).

### 2.8 Population and Sampling

The research population comprises all units in the geographical area where research is carried out. Saunders et al. (2019) stated that for a study to be researchable, the population of the study must be carefully considered and well communicated. Since population involves all the units within the geographical area of study and it is rarely possible to focus on all units within the geographical area; hence, there always arises the need to select a target population focus from the general population to select a sample to perform appropriate research as compared to studying all the units of the population.

![Figure 3. Population-Target Population-Sample (Adopted from Saunders et al., 2019, p. 296)](image)

According to Easterby-Smith et al. (2021), sampling techniques are selecting samples out of the study population. Sampling techniques are divided into two: probability sampling techniques and non-probability sampling techniques. Probability sampling gives all the units of study equal chances of being considered and selected. It involves adopting a statistical approach to make selections, while non-probability sampling considered the researchers'
subjective judgment and interest in selecting the sample for a study. Moreover, probability sampling involves quantitative analysis and is more applicable to quantitative research. Therefore, in a case study approach considered suitable for this study, non-probability sampling is more appropriate. Therefore, this study considers the selection of non-probability sampling. There are four types of non-probability sampling which are (i) quota sampling, (ii) purposive sampling, (iii) volunteer sampling, and (iv) haphazard sampling (Saunders et al., 2019).

This study considers SMEs in Lagos, a big city in Nigeria. The town has many SMEs registered at the Lagos Chamber of Commerce and Industry (LCCI), while the target is to focus on SMEs that deal in the business of food processing. Such companies are also many in numbers but based on purposive sampling. Therefore, to reduce the challenges in data collection during the current times of covid-19, the researchers have selected four case companies from the SME sectors of food processing to meet the purpose of this research. Moreover, the bases of the section of the case companies are following criteria as described by SMEDAN, i-e, the organizations having a number of employees from less than 10 to 119 with the worth of assets less than 10 to less than 100 million (naira) categorized as SMEs in Nigeria (National Policy on MSMEs, 2021).

However, after data collection and analysis from the selected samples, the conclusion that will be reached should not be generalized for the whole population because the result may not match when another subset of the population is considered (Saunders et al., 2019).

2.9 Data Collection Methods
This study followed the approach of case study and semi-structured interviews were conducted with the respondents to gather responses about their perception, adoption, and usage of SMAT application among SMEs in the food processing industry of Nigeria. Semi-structured interviews are suitable methods and in line with the case study approach (Bell et al., 2019).
However, the number of interviews to be conducted on research depends on the homogeneity of the targeted population. A larger interview is required as homogeneity becomes low and vice versa (Babbie, 2014). Saunders et al. (2019) further opined that a semi-structured interview ranges from 5 to 25 is considered appropriate for general research. In the light of all these criteria 4 cases companies with 11 respondents as presented in the table 2 were selected for data collection.

<table>
<thead>
<tr>
<th>Case</th>
<th>Respondents</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case A</td>
<td>Managing Director</td>
<td>A-MD</td>
</tr>
<tr>
<td>Case A</td>
<td>Financial Accountant</td>
<td>A- FAC</td>
</tr>
<tr>
<td>Case A</td>
<td>Finance Analyst</td>
<td>A-FAN</td>
</tr>
<tr>
<td>Case B</td>
<td>Director of Finance</td>
<td>B-DF</td>
</tr>
<tr>
<td>Case B</td>
<td>Financial Controller</td>
<td>B-FC</td>
</tr>
<tr>
<td>Case B</td>
<td>Management Accountant</td>
<td>B-MA</td>
</tr>
<tr>
<td>Case C</td>
<td>CFO</td>
<td>C-CFO</td>
</tr>
<tr>
<td>Case C</td>
<td>Accountant</td>
<td>C-ACC</td>
</tr>
<tr>
<td>Case C</td>
<td>Finance Analyst</td>
<td>C- FAN</td>
</tr>
<tr>
<td>Case D</td>
<td>Managing Director</td>
<td>D-MD</td>
</tr>
<tr>
<td>Case D</td>
<td>Financial Accountant</td>
<td>D-FAC</td>
</tr>
</tbody>
</table>

Table 2. Researchers Illustration of Respondents

Further, Pauline and Phillip (2016) stated that conducting semi-structured interviews is very good strategy in gathering data about people, their perception to a behavior, experience, opinions and events awareness. In developing interview guide for this research, the work of Cassell and Symon (2004) has been carefully studied in order to address the research questions. This interview guide has, therefore, fulfilled the following attributes:

i. **Previous literature:** Literature review had been a great source for developing research guide. By thoroughly understating the relevant concepts in the light of previous literature a comprehensive research guide had been developed for collecting the data for the thesis research work.
ii. **Personal knowledge:** The personal knowledge of the researchers was also factored into the formulations of interview questions that provided answers to the research questions. Our thesis supervisor also guided a lot in the formation of interview guide.

iii. **Field experience:** Our supervisor’s field experience and the researchers’ personal working experiences were also beneficial in order to properly framing the interview guide for gathering the required data for answering the research questions.

### 2.10 Data Analysis Methods

Yin (2014) describes five (5) data analysis techniques that can be utilized in analyzing qualitative research. The five techniques are as follows:

i. **Pattern matching:** This technique compares and analyzes data collected with predicted pattern in a research.

ii. **Explanation building:** This method uses matching skills for explanatory studies. This process involves building of explanation about case study by developing processes to explain the cause for “how” and “why” things happen.

iii. **Time-series analysis:** This addressed the questions of “how” and “why” things happen overtime.

iv. **Logic models:** It involves a model of study changes to complex events that are linked over a period.

v. **Cross-case synthesis:** This is the only model applicable to multiple case scenarios. Cross-case synthesis is relevant for studies of two or more cases. In cross-case synthesis, every case is treated as a separate study with the purpose of finding cross-case conclusions. One method is to create word tables that categorize the findings from each individual case. Hence, similarities and differences can be analyzed between the cases (Yin, 2014).

Due to the explanatory research strategy of this thesis, it employs explanation building as a data analysis method. Furthermore, this is a multiple case study, cross-case synthesis was conducted to enable for a comparison of the individual cases. Hence, the individual cases were categorized, compared in terms of differences and similarities. Then, cross-case conclusions
could be made. To compare the cases in terms of to what extent of use is SMAT in each case; the cases are analyzed according to the levels low, medium and high. In this way, usefulness, adoption and outcomes of SMAT application could be ascertained.

2.11 Research Quality

The research quality is based on reliability and validity of the research (Bryman and Bell, 2017). A research is reliable if it will give a consistent result when it is carried out from time to time and can be applicable to quantitative research but not qualitative research because of the characteristics of research design. Validity refers to extent to which the research can achieve the set objectives. Validity is divided into three parts: construct validity, external validity and internal validity (Saunders et al, 2019);

i. **Construct validity**: This means to the extent to which the research measures and achieve what it stated to measure. The contents of the research are well-defined and measured appropriately in order to satisfy the objective of the research. This has been considered in this research as term concepts were clearly defined in this study.

ii. **External validity**: This means extent to which a research finding can be generalized to a wider context beyond the research such as people, measures, setting, situations and events. The results of this research work are difficult to generalize because the research work has been based on four cases only.

iii. **Internal validity**: This mean extent to which the researcher is confident that the study carries out cannot be explained by any other factor outside the research consideration. Therefore, internal validity is germane to an explanatory research. The researcher has considered the aspect of internal validity while conducting this research work.

Reliability is more applicable to quantitative research (De Vaus, 2014) but the researchers have considered the following measures while conducting the research work:

i. Respondent’s error: which is beyond the researcher’s control, such as the inability of the researcher to control the respondents in conducting the interviews.

ii. Respondents’ bias: which is their perception and preference to the object under study.
iii. Researcher error: which might be the inability to articulate semi-structured interviews that will be understandable by the respondent without wrong interpretation. This has been carefully considered in drafting and asking the questions and validation given by the researcher’s supervisor.

iv. Researcher bias can be the expectation of the researchers from the respondents. This is taken care of by the researcher being objective and not interfering and misinterpreting in respondent’s opinion.

Therefore, this research was conducted using semi-structured interviews, putting into consideration measures that mitigate the threat to validity and reliability as mentioned above.

2.12 Ethics

Ethics in research is very pertinent to achieve objective research rather than subjective research. Honesty, objectivity, morality, prudence, transparency, respect for intellectual property, confidentiality, responsible publication, responsible management, respect for colleagues, social responsibility, anti-discrimination, integrity, credibility, and protection of data, are some of the ethical values of scientific researchers (Pranas et al., 2018). The researcher has carefully considered all the ethical issues in carrying out this research. Opinions of respondents are well respected with no interference and reading materials consulted during this research have been well referenced both in-text and reference listings. There are no other issues that come to the researcher's notice that would have been considered unethical during this research.

2.13 GDPR

GDPR stands for General Data Protection Regulation that is concerned with various kinds of personal data in terms of collecting, processing, analyzing, and storage. This data protection ordinance was implemented from 25th of May 2018 in all over the EU countries and applied while processing the personal data. Personal data consists of names, addresses, identity numbers etc. and other direct or indirect information that can be utilized for identifying any living person. However, the ordinance describes that while gathering personal data some under mentioned fundamental principles that must be followed (Linnaeus University, 2021);

i. A justified reason to collect data
ii. Informing the participants about data processing and obtaining consents from the participants before collecting data

iii. Only relevant and necessary data obtained for processing.

iv. Data should not be saved more than needed

v. Make sure about the security of the data.

In accordance with these basic principles the researches followed the following measures that have been suggested by the Linnaeus University (2021);

i. Accessing the need for personal data weather required or not, according to the necessity of research thesis.

ii. Defining what kind of data is required and its purpose in the research work

iii. Registering the personal data processing at Linnaeus University.

iv. Deciding the storage of personal data with a secure way.

v. Deciding the period of time to keep the need data.

vi. Obtaining prior consents from the respondents regarding aims and details of collecting data.

vii. Personal data processing and deletion after the completion of research thesis

For the purpose of this research work a few amount of personal data like name, designation, place of work, main job responsibilities were collected for distinguishing respondents from each other. All the respondents were informed about the objectives of research thesis and purpose of collecting data through interviews. Prior consent in this regard was obtained from the interviewees and explained them the usage of the information that has been obtained from them. It was made sure that personal data would be handled with extreme care and completely deleted after grading the thesis and uploading the same to DIVA.

2.14 Individual Contributions

The research work for the thesis was conducted in spring semester (Year-2021) by the two researchers; Naveed and Olumide. The study was developed by the equal joint efforts of them, under the supervision of Dr. Paul Scarbrough and examiner Professor Helena Forslund. Both the researcher split the thesis workload equally between them in accordance with the
knowledge and experience regarding the topic under study and participated in all the chapters of the thesis with their full efforts to finalize the research work together in time.

As proper communication is most vital aspect during researching and writing process, therefore, the authors contacted and discussed on the research matters almost daily on telephone / WhatsApp and through zoom meetings twice a week or when necessary. These conversations were held for understanding each other point of views and updating and improving the research work. More formal zoom meetings were conducted with the supervisor, Dr. Paul Scarbrough, for seeking guidance and his feedbacks on the thesis work were very valuable. Before zoom meeting an agenda for discussion regarding research project was individually prepared and discussed with each other for moving forward on the thesis work.

Seminars were attended regularly during the whole semester, where the submitted manuscript was discussed and critiqued by Professor Helena Forslund and the fellow students. All the members of different research groups defended the comments of opposing groups and explained their point of view during the process of opposition. Subsequently, feedbacks from them were received in the shape of ‘opposition reports’ and were really helpful in improving the research work of the thesis. Similarly, the authors also jointly written, presented and submitted their opposition reports in the seminars by reading and analyzing the ongoing research work of the other fellow students. Both the authors submitted their individual written opposition reposts as well as when it was mandatory to do so. In the final seminar the complete thesis was also presented by the authors jointly.

The work load of reading theoretical resources and literature, collection of data and writing the manuscript was shared and divided equally, however, many times various parts were re-read, deleted and rewritten by both the authors in the courses of the research work. For data collection, interview guide was jointly prepared and approved by the supervisor and both authors contacted the SMEs that are conducting food processing businesses in Nigeria. As Olumide was in Nigeria, therefore, he was very helpful in arranging the interviews with the companies. Online interviews were conducted in which both the authors participated.
Although, both the researcher worked independently at their locations but they combined their efforts to develop the thesis as a team. Finally, the conclusion was written by analyzing the empirical findings jointly and both the authors were responsible for mentioning references and appendix and shared equally the responsibility of entire thesis.

The members of the research team (Naveed & Olumide) are completely agreed upon the above mentioned statement regarding individual contribution. The collaboration and cooperation between both of them were positive and strong to complete this research project within allocated time which represented a true spirit of team work.

2.15 Summary of Methodological Choices.
Table 3 below summarizes the research methodology adopted in this research thesis. The first column presents details of the methodological choices that have been sufficiently explained in this chapter. The second column threw light upon the selected and most appropriate options that the researcher decided to conduct this research work.

<table>
<thead>
<tr>
<th>Research Methodology</th>
<th>Implication for the Thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research philosophy</td>
<td>Interpretivism</td>
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<tr>
<td>Research approach</td>
<td>Abductive</td>
</tr>
<tr>
<td>Research Design</td>
<td>Qualitative</td>
</tr>
<tr>
<td>Research Design Purposes</td>
<td>Explanatory</td>
</tr>
<tr>
<td>Research Strategy</td>
<td>Multiple Case Study</td>
</tr>
<tr>
<td>Time horizon</td>
<td>Cross-sectional</td>
</tr>
<tr>
<td>Population and sample</td>
<td>Population is consists of SMEs (food processing companies) in Lagos in Nigeria and four companies were selected as case samples</td>
</tr>
<tr>
<td>Data Collection Methods</td>
<td>Semi-Structure Interviews</td>
</tr>
<tr>
<td>Quality criteria</td>
<td>Reliability and Validity</td>
</tr>
<tr>
<td>Ethical Considerations</td>
<td>Anonymity, Confidentiality, Informed Consent and GDPR</td>
</tr>
<tr>
<td>Individual Contributions</td>
<td>Team Work</td>
</tr>
</tbody>
</table>

Table 3: Summary of Research Methodology
3. LITERATURE REVIEW

This chapter describes the theoretical framework of this study. The chapter discusses empirical reviews of previous literature followed by a discussion on SMEs, Strategic management accounting techniques and their applications, antecedents, and consequences for adopting SMAT among SMEs.

3.1. Small and Medium Scale Enterprises (SMEs)

SMEs have been considered a vibrant and highly dynamic sector around the globe that significantly contributes to the economy of any country (Qalati et al., 2021). Small and medium scale enterprises (SMEs) in Nigeria also not different from SMEs in other parts of the world. This type of business can be found in a variety of fields, including the arts, agriculture, engineering, and even local and international markets. The owners may be wealthy or impoverished, but it takes a variety of talents, competencies, capabilities, and money to keep them running. Such characteristics of SMEs have resulted in many definitions among scholars over time (Etim et al., 2020), and some of these meanings are discussed further. According to these authors, the concept of a small business varies depending on the country and organization.

Attempts to describe the definitions often rely on indices such as the number of people working, gross revenue, and total assets held by the operators. Due to the simplicity with which data on the number of people working can be used is a widely used index (Etim et al., 2020). There is no consensus on the maximum or a minimum number of people working in various SMEs. For example, the European Union and Economic Co-operation and Development (OECD) countries believe that SMEs should employ between 200 and 250 people. At the same time, Japan and the United States set their ceilings at 300 and 500 workers, respectively. The disparity between the two definitions influences this perspective on SMEs. Lybaert (2016) backed up this claim by stating that the regional substitution and the country’s policies on SMEs influence the definition of SMEs.

In Nigeria, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) has classified the enterprises based on staff strength and assets. The organizations having number of employees from less than 10 but up to 119 with the worth of assets less than 10 but
up to less than 100 million (naira) categorized as SMEs in Nigeria (National Policy on MSMEs, 2021). Therefore, SMEs is a highly personalized business enterprise situated within an area of operation relatively small in size, employment, turnover, and capital and is actively managed by one or few persons for a profit.

SMEs are usually organized as a family business, or they have a single proprietor. However, as the enterprise expands, a partnership usually evolves and eventually leading to the formation of a large business. Usually, the location of the enterprises tends to be evenly distributed both in the urban and rural areas, although some have already been relocated to industrial areas. Small-scale businesses are characterized by small-scale investment and simple technology, which makes a relatively high labor demand. Among these small-scale industrial activities, the manufacturing of food and beverages is the most important in terms of the number of businesses and the number of workers employed (Adem, 2021).

According to Uzoejinwa et al. (2016), Nigeria has a large number of traditional foods. The essential products in the food processing sector are sugar, carbonated soft drinks, tea, frozen shrimp, maize, rice, wheat flour, poultry feed, cooking oil, bread, biscuits, cakes, and beer. In Nigeria, small-scale industries play an essential role in the economic life of the people since these businesses are found in every province and have a high capacity to employ labor.

3.1.1 The Economic Importance of SMEs.
The value of SMEs to various economies is widely known, as they are the most common type of company in various countries (Rwigema & Karungu, 1999). SMEs play a distinct role in the economy in developed economies such as the United States and the United Kingdom, although their prosperity and success in emerging economies are well known (Rwigema & Karungu, 1999). Therefore, Rogerson (2016) claims that SMEs play a significant role in growth, development, job creation, and poverty reduction.

In Nigeria, SMEs are responsible for a higher degree of productivity and job opportunities. SMEs contribute to the economy's industrial development by making the best use of raw materials, intermediate products, and local technologies (Etin et al., 2020). Overall, SMEs have played and continue to play an essential role in the development of the country. However,
due to SMEs' obvious challenges, there is increasing concern among SME stakeholders that the sector is not contributing optimally to the economy. In this regard, Mead and Liedholm (1998) found that, on average, more SMEs close than expand, with only about 1% of micro-enterprises increasing from five to ten employees.

### 3.1.2 Challenges faced by SMEs in Food Processing Industry

According to Naicker (2016), external-based problems and internal-based problems are two types of difficulties that SMEs face. External-based issues concern the state of the economy in a given country and changes in other macroeconomic factors, such as a shift in certain economic conditions, say an economic downturn that would significantly impact SMEs operations in the country (Berry et al., 2002). Internal-based problems such as human resources in perspective are the most common. Poor staff planning, multi-functional management, high employee turnover rate, inadequately trained employees, low productivity, difficulties in recruiting quality staff, labor markets, employee skills, managerial skills and styles, organizational cultures are examples of internal-based problems (Berry et al., 2002; Naicker, 2016; Lybaert, 2016). Stiff competition and poor competitive skills among SMEs operators, limited market share, low demand for goods, poor marketing skills, nonstrategic position of the industry, inability to define the target market, are a few examples of external difficulties that is needed some viable solutions and among other possibilities one could be adopting strategic management accounting techniques for promptly handling these matters (Naicker, 2016).

The fact that small-scale industries have not made the desired impact on the Nigerian economy despite all the efforts and support of different administrations and governments gives a cause for concern. This shows that fundamental problems are facing small-scale industries but have either not been addressed or partially tackled. According to Uzoejina et al.(2016), the rapid development of SMEs in the food processing industry in Nigeria are hampered by the adoption of inefficient or inappropriate technologies, poor management, inadequate capital and limited access to financial institutions, high interest rates, and low-profit margins, limited capacities for research, development and adaptation, inadequate storage facilities, stiff competition from imports, high dependence on imported raw materials, lack of relevant market information, etc.
Uzoejinwa et al. (2016), categorized the problems facing small-scale industries as; financial, management and technical problems, Increased transportation and communication costs, competitive rivalries, frequent changes in customer demand, regular technical advances, and new policies like labor standards that keep changing and SMEs operators are forced to follow both in local and foreign markets are among the challenges faced by SMEs in Nigeria. Multinational corporations looking for new markets and acquisitions provide capable SMEs with the ability to join global value chains through subcontracting linkages, while those who are unable to do so risk losing their current markets. Within the developing world, competition for export markets, foreign investment, and capital is heating up. According to Aremu and Adeyemi (2011), it only takes the first five (5) years for most SMEs to fail in Nigeria; the ones that survive the first five (5) years fail within year six (6) to ten. (10) in operation as a result of improper or lack of application of SMAT in the decision making process among SMEs in Nigeria.

3.2 Strategic Management Accounting Techniques (SMAT)

In traditional views of business administration, management accounting has been seen as having three pillars; planning, controlling and decision making. Planning entails 'establishing goals and specifying how to achieve them', Controlling pertains to 'gathering feedback in ensuring that the plan is being properly executed or modified as circumstances change and Decision making concerns with 'selecting a course of action from competing alternative' (Brewer et al., 2019). It further aids to Strategic Management Decision-making and actions for determining the performance of the entities in the long run (Wheelen et al., 2017).

Various definitions have been attributed to the SMAT terminology by scholars. Simmonds’ (Petera & Šoljaková, 2020) initial conceptualization of SMAT was a collection of externally orientated management accounting techniques that analyse data about a business and its competitors, used to develop and monitor the strategy of a business. The definition of SMAT has since undergone some refinements. According to Yap et al., (2013), there is no comprehensive, universally acceptable framework available in SMAT but newer attempts have been made to define the concept. Cooper and Kaplan (1988) state that SMAT are designed to support the overall competitive strategy of the organization in developing more refined product
and service costs. According to Shank and Govindarajan (1989), SMAT is regarded as the use of cost information by managers explicitly directed at the stages of the strategic management cycle. SMAT consists of various techniques that can lead to value-creation in organizations (Abdullah & Said, 2015), and can support strategic decisions-making such as process improvement, pricing, outsourcing and re-engineering (BPR).

Armstrong and Jones (1992) conducted a research to explore the utilization of SMAT in the past, in collaboration with Chartered Institute of Managerial Accountants (CIMA) and concluded that SMAT provides information such as financial effect of competitor, financial effect of competitor response, competitor costs, value of market share response, product profitability, customer profitability, pricing decisions, capacity expansion, cash-flow. Research continued to provide the required knowledge to management in order to provide advance knowledge of potential changes in the SMAT (Drury, 2001). Majeed and Hamza (2012) stated that SMAT ideas and theories in organizations has become a need and necessity in the business world today and this can be reflected in an organizations management accounting system, where the emergence of SMAT was a natural result of the need for accounting tools for managements use.

According to Drury (2001), academics and management accounting researchers attempted to apply concepts for SMAT, which Innes (1998) defines to provide information to support the organizations' strategic decisions, which could include long-term plans and business environmental factors. Bromwich (2010) describes it as providing and reviewing financial data on an organization's product markets, competitor prices, cost structures, and strategy management for business competitors. SMAT, in general, can be divided into three phases: strategic planning, strategy implementation, and strategic control (Wheelen & Hunger, 2002). Shank and Govindarajan (1992) refers to SMAT as an organization’s management use of information about costs to direct the 4 (four) stages which are (i) strategy formulation (ii) strategy communication to all departments in the company (iii) strategy implementation and (iv) strategy control. The basic components of strategic management are depicted in Figure 6 below, which covers the planning process and the implementation and control phases. Although the steps in the strategic management phase are distinct and sequential, it is
important to note that there is significant overlap between them. Figure 6 (below) also shows the importance of good communication and feedback in the strategic management accounting techniques process, with multidirectional arrows:

Figure 4. The Strategic Management Accounting Process adopted from Götzte and Mikus (1999) and Wheelen and Hunger (2002)

3.2.1 SMAT Planning

The tasks of defining the organization's mission, setting its objectives, assessing the external and internal environment of the organization, and designing and selecting strategies to allow it to function effectively in its environment have all become extremely important in management circles in recent years (Rowe et al., 1989). Strategic planning, as seen in Figure 1, begins with a clear view of the organization's mission. Secondly, organizational goals must be defined so that everyone understands what management needs to achieve. Thirdly, management determines the strategic options required to achieve those goals. Examining the organization’s strengths and weaknesses, predicting the future world, and so on are all part of this step. Finally, strategic decisions are taken to complete the planning process.

The strategic planning process includes mission statements, policies, goals, and strategy, which are not mutually exclusive. Rather, they are inextricably linked and interdependent. It's impossible to speak about achieving goals without first understanding the policies that must be
implemented. Similarly, a plan cannot be developed without first determining the goals to be achieved and the policies to be implemented. Furthermore, the strategic planning process is influenced by strategy implementation. Figure 1, which depicts the entire strategic management accounting technique process as a sequence of sequential steps, should be viewed as a tool for evaluating the entire process rather than a step-by-step procedure to be followed in order.

**Mission:** Organizations cannot survive if they don't know where they're going or what they're about. An organizational mission describes the nature of a company's activities in terms of goods (including services) offered and markets served, as well as the basic, special intent that distinguishes it from other companies of its kind (Wheelen and Hunger, 2002). To put it another way, a mission statement outlines an organization's goal, clients, goods and technology. As a result, it is the reason for the organization's success. The philosophy and intent of an organization are often revealed in mission statements (Daft, 2001). The principles, beliefs, and rules by which the company will conduct its business are defined by an organizational philosophy (David, 1993). The organizational intent identifies the activities that the organization engages in or plans to engage in, as well as the type of organization it is or intends to be. The mission statement explains who we are, what we do, and where we want to go. Organizations require mission statements that are explicitly articulated and understandable.

Mission statements should be specific enough to assist the organization in determining its market niche (Megginson et al., 1992). A business seeking to accommodate a broad group of diverse consumers is forced to make compromise decisions in nearly every aspect of its pricing, product specifications, and service policies due to the various characteristics of customers and geographic areas, as well as differing product preferences. As a result, it finds itself unable to fully satisfy anyone. Other entrants are likely to enter the market and build strategies that target specific market niches. And, in its effort to maintain a wide, diverse market, the original company often discovers that this market has shrunk into small slices that are served by other companies with narrower focuses. Drucker (1993) concluded that the mission statement determines the organization as he emphasized the importance of mission statements.
Objectives: A company that lacks goals is a company that lacks direction. The end results, goals, or aims that all organizational operations strive to achieve are known as objectives (Meggison et al., 1992). Objective of a company plays a vital role in the planning process because they serve as the focal point for directing strategies. Objectives differs among companies but are commonly categorized into profit objective (profitability), customer objective (customer service), employees’ objective (employee welfare and needs) and environmental objective (corporate social responsibility) and others. Profitability, markets, competitiveness, commodity, financial capital, physical infrastructure, research and innovation, organization structure and operations, human resources, customer relations, and social responsibility are all possible areas for setting long-term goals for most organizations (Raia, 1974). Not all organizations have goals in all these fields.

Long-term goals should be identified for every sector of the organization where success and results have a direct impact on the organization's sustainability and prosperity (Drucker, 1993). Long-term goals must complement rather than contradict the organization's mission (Thompson, 1993). They should be as straightforward, succinct, and quantifiable as possible, and they should be specific enough for the organization's employees to understand what the organization wants to accomplish. They should cover all major divisions or areas of the organization, rather than focusing on only one. Different areas of the organization's objectives will act as a check on each other, but they should be consistent. Finally, goals should be dynamic in the sense that they must be reevaluated considering changing circumstances. They then become quantifiable points that show how the company is progressing toward its goal.

Internal organizational analysis and external environmental analysis: Until an entity can set concrete goals and develop plans, it must first assess its current situation. An internal organizational review aims to partially address the question what is the organization’s current situation? It assesses all factors that affect the survival of the business in all ramifications (Wheelen and Hunger, 2002). In general, when conducting an internal organizational study, a checklist of variables is used. Financial status, organizational structure, quantity and quality of employees, product line, competitive position, state of facilities and equipment, marketing capacity, research and development capability, past goals and plans are some of the items on a
standard checklist (Brauchlin & Wehrli, 1991). Managers may assess their company's limitations or strengths in comparison to other organizations based on their knowledge of these fields.

External environmental monitoring is also a part of the method of determining "where we are now." It includes external factors that may have an impact on the organization's performance but are beyond the organization's control. Developing a better understanding of the current and Future external environments allows the company to adapt to change more effectively. Political, economic, ecological, social, and technological forces influence an organization's existence within an industry context, and the industry environment and individual organizations within the industry are affected by political, economic, ecological, social, and technological forces. The objective of analyzing the external environmental is to recognize external opportunities and risks. The company must also understand its own strengths and weaknesses in order to choose opportunities with a higher chance of success. As a result, the situation review examines both the external and internal environments.

Figure 5 External environment of the organization adopted from Hungenberg (2000: P 74)

The external environment is divided into two types: a macro-environment that affects all firms and a micro-environment that only affects firms in a specific industry. Understanding current
environmental conditions necessitates the development of an industry profile. An industry profile is a document that addresses questions about a specific industry's main areas. Marketing practices, market dynamics, financial situation, competition, operating conditions, and manufacturing techniques are some of the fields that may be investigated (Megginson et al, 1992). Forces from outside the industry also influence the industry's climate.

A company must not only analyze but also forecast its current and future environmental conditions (Hungenberg 2000). Under stable environmental conditions, establishing goals and plans is much simpler. When predicting, however, setting goals and plans is more practical. Regardless of the high risk of error, companies must predict their future environment in order to be competitive. Forecasting is the process of determining the effect of a variety of forces (political, economic, social, and technological forces) on an entity (David, 1993). It also focuses on gaining a better understanding of the most relevant problems and developments in the future.

The organization's strengths and weaknesses are determined by an internal organizational review and an industry profile. Based on the organization's current and potential business climate, the industry profile partly shows threats/opportunities. The aim of an external environmental analysis is to identify the main environmental factors that affect a company and its industry. The current influence of these forces aids in recognizing the organization's risks and opportunities. The main factors that are most likely to impact the company and its threats/opportunities are identified by forecasting future environmental forces. David (1993) argued that internal strengths/weaknesses, in combination with external opportunities/threats and a strong statement of mission, provide the foundation for defining goals and strategies.

**Identifying strategic alternatives:** Corporate, accounting, market and functional strategies must all be created. These techniques are developed as a result of the decision-making tool (Robbins, 1991). Management must specifically define and review alternative solutions before selecting a collection that is consistent at each stage and allows the company to better capitalize on its resources and available opportunities in the environment. Since a company has a wide range of choices when it comes to selecting a strategy, evaluating alternative strategies is a vital phase in the strategy formulation process. Four parameters for assessing strategic
options have been proposed by Schendel and Hofer (1979): (i) The strategy and its constituent parts should have clear goals, objectives, and policies; (ii) It should focus resources and efforts on the critical issues identified during the strategy formulation process, separating them from unimportant issues; (iii) It should deal with sub-problems that can be solved given the organization's resources and skills; and (iv) It should be capable of practicing. When weighing alternatives, it's also necessary to concentrate on a specific product or service, as well as the competitors that are direct competitors in providing it. A strategy should be dismissed if it does not build or leverage the organization's competitive advantage. Table 4 below summarizes the process involved in strategic planning in line with past research.

<table>
<thead>
<tr>
<th>Strategic Planning</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define mission</td>
<td>Rowe et al. (1989); Megginson et al. (1992); David (1993); Daft (2001); Wheelen and Hunger (2002)</td>
</tr>
<tr>
<td>Set goals</td>
<td>Raia (1974); Rowe et al. (1989); Brauchlin and Wehrli (1991); Drucker (1993); Thompson (1993); Wheelen and Hunger (2002)</td>
</tr>
<tr>
<td>Internal environmental analysis</td>
<td>Rowe et al. (1989); Brauchlin and Wehrli (1991); Megginson et al. (1992); David (1993); Hungenberg (2000); Wheelen and Hunger (2002)</td>
</tr>
<tr>
<td>External environmental analysis</td>
<td>Rowe et al. (1989); Brauchlin and Wehrli (1991); Megginson et al. (1992); David (1993); Hungenberg (2000); Wheelen and Hunger (2002)</td>
</tr>
<tr>
<td>Design and select SMAT from alternatives</td>
<td>Schendel and Hofer (1979); Rowe et al. (1989); Robbins (1991)</td>
</tr>
</tbody>
</table>

**Table 4 Summary of strategy design (Own Illustration)**

### 3.2.2 SMAT Implementation

Managers will choose among the available options the tactics that are better suited to the organization's strengths and offer their company a more desirable competitive advantage, then strive to maintain that advantage over time (Noordin et al., 2009). When a company chooses which strategy or strategies to follow, the strategic management process does not end. It is necessary to translate strategic thinking into strategic action. This translation is much easier if the organization's managers and workers understand the market, feel a part of it, and have been committed to helping the organization succeed by participating in strategy-formulation activities. The tasks required to carry out the chosen strategy are referred to as strategy.
implementation. Developing an organizational structure, handling day-to-day organizational tasks, and assessing the strategy's efficacy are some of these activities (Byars, 1984).

3.2.3 SMAT Control
The fundamental principle of strategic management is that the chosen approach will help the company achieve its goals. However, the likelihood that this will not happen necessitates the strategic control process. Top management decides how well or not the chosen approach is achieving the organization's goals during the control phase of the strategic management process. Company controllers are often involved in the development of strategic control systems. (i) Is the strategy being implemented as planned? (ii) Is the approach producing the desired outcomes? (Aaker, 1984)

3.3. Perception of the Usefulness of SMAT among SMEs in the Food Processing Companies in Nigeria
According to Dobroszek et al. (2019), the perception of SMAT translate into the assessment of its usability and value whether the usefulness will be highly appreciated depends on whether SMAT meets the expectations of SMEs. SME needs SMAT to ensure the strategic decision making, cost management and overcoming tough competition. Dobroszek et al. (2019) explained that SMEs use SMAT for different purposes which include: problem solving, competitiveness and internal operation. The higher the support for SMAT among SMEs, the better the evaluation (positive perception) of the usage thereof by SMEs in terms of the completion of their tasks and achievements; or, in other words, user satisfaction. The perception of usefulness of SMAT by SMEs may vary depending on different circumstances, which may include CEO characteristics or attitude, internal operation of the firm, state of management accounting practice, knowledge about management accounting as well as level of competitiveness.

Considering that less research attention that has been given to the perception of usefulness of SMAT among SMEs, most of the studies reviewed in this area examine the usefulness of specific SMAT by SMEs and tend to focus on “current” trends in SMAT. For instance, Armitage et al., (2016), documented the way in which performance measurement systems are developed and used by SMEs. Moreover, Armitage et al., (2016), find that SMEs have
measurement systems that are not closely linked to firm strategy, focus heavily on financial metrics, and are developed on an ad hoc basis by individual managers. Timans et al., (2012) study the usefulness of lean six-sigma approach (LSS) by SMEs for implementing continuous improvement processes and . Timans et al. (2012), finds out that find that about 40 percent of the SMEs in their sample use some form of SMAT but also report that the lack of resources in SMEs.

Davila and Foster (2005) examine the usefulness of SMAT by small startup companies in the United States (fewer than 150 employees and less than 10 years old). They find that the use of cash budgets and operating budgets is common but the usefulness of these tools is more likely by the larger companies in their sample and by the companies receiving venture capital. In the study of Moores and Yuen (2001), a combination of survey data and field interviews to compare the use of SMAT by SMEs at different stages of the company’s (birth, growth, maturity, revival and decline). A key finding is that firms rely more heavily on SMAT as they move from the birth to growth stages with reduced usage in the decline stage. As a final point, there has been some research comparing the use of SMAT by SMEs to that of large companies. Brierley (2011) compares product costing practices of SMEs and large companies in Britain. Brierley (2011), finds that larger companies are more likely to use more sophisticated costing approaches such as employing multiple departmental rates for assigning overhead to cost objects or using activity-based costing.

Literatures on the perception to which SMEs has used SMAT in previous studies (e.g. Kamilah 2012, 2014; Abdel-Kader & Luther, 2006), but Kamilah (2014) also found that empirical SMAT research designed to examine technological innovation and growth is focused on larger companies to exclude SMEs and concluded that budgeting technique had been used for planning, financial position, cash flows, and managing costs are among the most in SMAT in Malaysian ’s major large manufacturing companies. SMEs highly use financial based SMAT (e.g. budgeting techniques, financial performance measures and product profitability) as well as non-financial SMAT (on-time delivery) among SMEs in Malaysia. In Britain, Abdel-Kader and Luther (2006) reported that financial based SMAT (budget planning, cost control and product profitability) are widely used in Britain. SMAT methods have developed in several ways, all of which are contradictory and iterative (Cinquini & Tenucci, 2007; Noordin et al.,
2009). On the other hand, Cadez and Guilding (2008) established a commonly used grouping for SMAT. Cadez and Guilding (2008) refine the classification of SMAT by deriving sixteen categories from prior studies and categorizing them into five large groups: (i) costing; (ii) planning, monitoring, and performance measurement; (iii) strategic decision-making; (iv) competitor accounting; and (v) consumer accounting. They claim that the first three classes (costing, planning, monitoring, performance management, and decision-making) fit with the underlying theme of management accounting, while the remaining two (competitor accounting and consumer accounting) fall beyond the purview of traditional management accounting but within the domain of SMA. The following are the techniques that fall under each category:

i. Costing, which includes Attribute costing, Life-cycle costing, quality costing, target costing, and value-chain costing?
   
ii. Planning, monitoring, and performance measurements, which include Benchmarking and integrated performance measurement; and

iii. Strategic decision-making, which includes: costing/pricing strategy and valuation of brand

iv. Competitor Accounting, which includes: Competitor cost estimation, Competitive position tracking, and Competitor performance appraisal; and

v. Customers Accounting, which includes: Customer profitability analysis, Lifetime customer profitability analysis, and Valuation of Customers as assets?

Some SMAT explored in other research, such as Activity Based Costing (ABC)/Activity Based Management (ABM) (Alsoboa et al., 2015), were not included in Cadez and Guilding's (2008) classification (Alsoboa et al., 2015). Though Guilding et al., (2000), and Yap et al., (2013) do not consider ABC to be a SMA technique, Shank and Govindarajan (1992) and Ahl (1999) do. Table 7 below demonstrates how this study viewed SMAT usefulness based on previous research. This is made up of 16 techniques from Cadez and Guilding's (2008) list, plus three (3) techniques based on a literature review (ABC, ABM, and Environmental Management Accounting in asterisks), for a total of nineteen (19) techniques (Oyewo and Ajibolade 2019). The table below summarizes the SMAT in line with past research and this will form the basis of the analysis in this research work.
### 3.3.1 Costing Techniques

According to Oyewo and Ajibolade (2019), this includes attribute costing, life-cycle costing, quality costing, target costing, and value-chain costing comprises five techniques intending to determine, strategically manage and analyze costs.

**i. Attribute costing:** According to Ljiljana and Edin (2017), attribute costing is a costing technique of a specific product features attributes that appeal to customers. These attributes are viewed as cost object.

**ii. Life cycle costing:** This refers to a costing technique that calculates costs associated with a particular product during the period of its entire life cycle and usually corresponds to the whole market life of a part product, i.e., introduction, growth, maturity, and decline (Agu et al., 2016).

<table>
<thead>
<tr>
<th>Category</th>
<th>Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costing</td>
<td>1 Attribute Costing</td>
</tr>
<tr>
<td></td>
<td>2 Life cycle costing</td>
</tr>
<tr>
<td></td>
<td>3 Quality costing</td>
</tr>
<tr>
<td></td>
<td>4 Target costing</td>
</tr>
<tr>
<td></td>
<td>5 Value-chain costing</td>
</tr>
<tr>
<td></td>
<td>6 Activity based costing</td>
</tr>
<tr>
<td></td>
<td>7 Activity based management</td>
</tr>
<tr>
<td>Planning, control and performance measurement</td>
<td>1 Benchmarking</td>
</tr>
<tr>
<td></td>
<td>2 Integrated performance measurement</td>
</tr>
<tr>
<td></td>
<td>3 Environmental management accounting</td>
</tr>
<tr>
<td>Strategic decision making</td>
<td>1 Costing strategy</td>
</tr>
<tr>
<td></td>
<td>2 Pricing strategy</td>
</tr>
<tr>
<td></td>
<td>3 Valuation of brand</td>
</tr>
<tr>
<td>Competitor Accounting</td>
<td>1 Competitor cost estimation</td>
</tr>
<tr>
<td></td>
<td>2 Competitive position tracking</td>
</tr>
<tr>
<td></td>
<td>3 Competitor performance appraisal</td>
</tr>
<tr>
<td>Customer Accounting</td>
<td>1 Customer profitability analysis</td>
</tr>
<tr>
<td></td>
<td>2 Lifetime customer profitability analysis</td>
</tr>
<tr>
<td></td>
<td>3 Valuation of customers as assets</td>
</tr>
</tbody>
</table>

Table 5 SMAT Summary. Adopted from Oyewo and Ajibolade (2019, pp 67-69)
iii. Quality costing: According to Ljiljana and Edin (2017), quality costing can be divided into three: appraisal, failure costs, and prevention. The primary purpose of quality cost reports is for directing management attention to prioritize quality problems.

iv. Target costing: According to Ojua (2016), target costing is a method applied during product and process design or planning that involves estimating a cost calculated by subtracting the desired profit margin from an estimated price to arrive at the expected production engineering or market cost. It is a preventive cost that is fixed to ensure that a goal is achieved and the market cost of a product. The product is therefore designed to meet that cost.

v. Value-chain costing: According to Ljiljana and Edin (2017), value chain costing refers to a systematic approach to examining competitive advantage development. The chain consists of a series of activities that create and build value. Value chain analysis refers to a structured method of analyzing the effects of all core activities on the cost and differentiation of the value chain. It is the extension of the activity-based costing approach in which costs are allocated to activities required to design, procure, produce, market, distribute, and service a product.

vi. Activity-based costing/Management: It assumes activities performed as the main object in calculating costs and fixing the effectiveness of a business process. Those activities are considered the ultimate causes of indirect costs. Just In Time analysis justifies the competitiveness of the firm by minimizing the cost of operation do not add value to the product and ultimately the resources of the firm (Ojua 2016).

3.3.2. Planning, Monitoring and Performance Measurements

These Comprises three practices related to performance management. This is a very important technique to the organizations and has attracted the attention of the scholars of management accounting and control.

i. Benchmarking: According to Agu et al. (2016), it compares a firm's performance to that of an ideal set standard with the goal of improvement in a firm's practices. Bases for comparison are usually the standard within an industry.
ii. **Integrated performance measurement:** According to Ljiljana and Edin (2017) integrated performance measurement system contained both financial and non-financial measures (balanced scorecard) and was offered by Kaplan and Norton (1992), where financial and non-financial measures were integrated for strategic performance management purpose to create a balance through linking firm vision and strategy of the firm with different perspectives which includes the customers, internal business processes, learning and growth, and financial position.

iii. **Environmental management accounting:** Agu et al. (2016), this is concerned with the compilation, identification, analysis, and estimation of environmental cost information for better decision making about the environment in which the firm operates.

### 3.3.3. Strategic Decision-Making

This comprises three strategic management accounting techniques: Strategic costing, Pricing strategy and valuation of a brand. Strategy costing involves costs strategically and allows creating and achieving competitive advantages (Shank & Govindarajan, 1992). Proposed by Simmonds (1982), strategic pricing focuses on the strategic definition of price, considering the competitors' actions and reactions, which confer an external and forward-looking orientation. Finally, brand valuation is part of brand management accounting and essential development of the SMA. The brands represent a critical and relevant resource of the organizations, and they are sources of competitive advantages. In this sense, it is essential to managers of products and strategic marketing to provide information that allows managing the value of brands, impacts of decisions in the long term benefits, and resource allocation to most profitable brands.

i. **Costing Strategy:** According to Ljiljana and Edin (2017), costing Strategy involves relating cost accounting systems to a firm's corporate strategy development strategic costing techniques. however, at the heart of this system, there is a competitive advantage that can be achieved through product positioning and market penetration.

ii. **Pricing strategy:** focuses on the use of competitor information, such as, price elasticity, competitors' reactions to price changes, and economies of scale and experience, in the pricing process (Oyewo & Ajibolade 2019).
iii. Valuation of a brand: The use of brand value as a basis for managerial decisions on the allocation of resources to support/enhance a brand position, thus placing attention on management dialogue on brand issues (Oyewo & Ajibolade 2019).

3.3.4. Competitor Accounting

It represents an essential category of SMA and reflects a broad consensus of the SMA researchers. It comprises three practices that focus on competitors and assume an external orientation. Therefore, they are helpful in planning, decision-making, and strategy monitoring. For instance, Dixon (1998) showed that the information published by competitors is an essential source of helpful information to formulate the Strategy. Ojua (2016) also highlighted the importance of the information on competitors publicly available through press releases, research contracts with universities, and papers at scientific conferences to develop competitive strategies and monitoring competitors.

i. Competitor cost estimation: This relies solely on cost information from competitors contrast to the previous technique, competitor cost assessment concentrates uniquely on cost structures of competitors; the main criticism of this technique regards the information sources (Oyewo & Ajibolade 2019).

ii. Competitive position tracking: It aims to gather information on competitors regarding sales, market share, volume, and unit costs. Based on the information provided, the company can assess its position relative to main competitors and, consequently, control or formulate its Strategy (Ljiljana & Edin, 2017).

iii. Competitor performance appraisal: It is a relevant source of competitors' evaluation is constituted by public financial statements; today's international accounting harmonization permits a simpler comparison between companies of different countries. This approach requires obtaining and analyzing competitor information from the published financial report that is available for use (Oyewo & Ajibolade, 2019).
3.3.5. Customers Accounting

It comprises three practices that focus on customers. According to Oyewo and Ajibolade (2019) SMAT practices give their strong external orientation and the relevance of the customers within the context of the organizations. The customer profitability analysis allows assessing the profitability by customer or customer segment. In turn, the lifetime customer profitability analysis assesses the profitability by customer or customer segment, taking into account the lifetime, which also confers a forward-looking orientation.

In addition, the third customer accounting practice labeled in some studies as the valuation of customers as assets and customer lifetime valuation in other studies also assumes an external and forward-looking orientation given that it assesses the present value of all future profit streams to a particular customer or segment of customers. These customer accounting practices assume a strategic direction and evaluate the relationships with customers and improve the development of strategies, decision-making related to product development and marketing, pricing, and management of resources connected to the customers. In addition, those practices allow improving the cooperation among the management accounting and other managerial functions, such as strategic management and marketing.

i. **Customer profitability analysis:** This includes all the practices directed to appraise profit, sales, or costs deriving from customers or customer segments. the technique considers customers or group of customers as a unit of accounting analysis and aims at appraising profit, sales, or costs deriving from customers or customer segments (Oyewo & Ajibolade 2019).

ii. **Lifetime customer profitability analysis:** Including future years in the time horizon for consumer profitability research. The practice focuses on all projected potential revenue sources and costs associated with the project in servicing a specific client (Oyewo & Ajibolade 2019).

iii. **Valuation of customers as assets:** A method for measuring the importance of customers to a company. This might mean estimating the current value of all possible benefit sources attributable to a single customer. SMEs depend on restating firm boundaries, reallocating resources, reengineering processes, and evaluating products or services concerning customer requirements. (Oyewo & Ajibolade 2019).
According to Nixon and Burns (2012), SMAT consists of strategic management literature, practices, strategy-oriented literature, and management accounting tools, and future research should concentrate on improving relationships between the four elements that make up the SMAT. Branka and Andrijana (2012) investigated the relationship between the applications of SMAT initiatives such as Activity based costing (ABC), just in time (JIT) and total quality management (TQM) and the improvement in financial performance of 56 SME companies in Jordan. They discovered that 26.8% of these companies use at least one of the strategic initiatives, and that the level of awareness of the importance of using strategic initiatives is high. SMAT implementation aids management in overcoming tough competition (El–Dyasty, 2007). On a practical level, SMAT perform similar tasks as SMAT attempts to expand and refine management accounting concepts that makes use of both financial and non-financial data (Sami, 2011).

Cinquini and Tenucci (2010) discovered in their study that there is little significance in linking strategy orientation and SMAT, but there is empirical support for the relationship between SMAT (quality costing, activity based costing, life cycle costing, value chain analysis and target costing) and strategy. The evidence stated in the study suggests that defenders are defenders of the strategy. In 53 five-star SME hotels in Turkey, Erbasi and Ünüvar (2012) investigated the use of SMAT and satisfaction with them. They discovered that although the use of SMAT was widespread, satisfaction with it was poor. Customer relationship management (CRM) is a widely used method. The SWOT analysis is the method with the highest satisfaction ratings. They also discovered that there is no connection between satisfaction with SMAT and demographic factors.

Based on a questionnaire survey of small-sized Croatian firms, Bromwich (2010) discovered that SMAT implementation has a positive effect on cost management and cost reduction. After surveying 20 general management accounting textbooks, Hoffjan and Wompener (2006) discovered that SMAT is not incorporated into textbooks within a coherent, consistent framework. In their research, Ahmad and Roghayeh (2010) discovered that managers of listed companies on the Tehran stock exchange used conventional management tools and not SMAT. The key reasons for the lack of widespread application of SMAT, according to Soljakova (2012), are a lack of consensus among writers about SMAT meaning, vague methods, and
ineffective managers to apply it or its resources. Furthermore, Gary et al., (2003) discovered that 76 percent of the companies in his sample use quantitative techniques (spread sheet), 70 percent use operation budgeted and direct labor to assign overhead costs, and 25% use goal costing in their research. Jasch (2003) discussed the advantages of using activity-based costing to monitor environmental costs.

In their research, Hardan and Shatnawi (2013) discovered a connection between using the ABC and the financial output of telecom companies. Benchmarking helps businesses gain a competitive advantage, raise profits, and boost customer loyalty over time (Magd, 2008; Lee et al., 2006). According to Blank (2012), performance benchmarking in private firms in Saudi Arabia is better than in public organizations, and there is no substantial gap between companies of different sizes.

According to Maire et al., (2005), benchmarking was so common in French companies that 50% of 1000 companies used it on a regular basis, Ranjbarian at al., (2012) found that perceived quality has a strong influence on brand, consumer loyalty, and repurchase of the product to service in their research. In his research, Al-Dalabeeh (2012) discovered that Jordanian industrial companies can use a goal costing scheme to reduce costs, but that there are several obstacles. Swenson (2003) discovered that Chrysler Group, Continental Tires, Caterpillar, Daimler, and Boeing were the top five companies in the United States that used target costing to manage costs. Swenson et al. (2003) discovered that 16.5 percent of Swedish companies use target costing. The value chain costing technique assists an organization in identifying, improving, and evaluating its strategic strategy, as well as evaluating competitive cost positions and minimizing time and costs (Yang & Shang 2007). This will provide management with a valuable strategic planning research tool (Xue, 2005). Wiersma (2009) discovered that managers use balance score card for decision-making, teamwork, and self-monitoring in his analysis of 19 Dutch firms.

3.3.6 Operationalization
Table 6 enlists the variables to measure how the perception of usefulness of SMAT among in SMEs.
### Table 6 Operationalization of the perception of usefulness of SMAT (Own Illustration)

<table>
<thead>
<tr>
<th>Variable</th>
<th>References</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMAT</td>
<td>Oyewo and Ajibolade (2019); Cadez and Guilding (2008);</td>
<td>Oyewo and Ajibolade (2019) provided lists of 5 categories broken down into 19 different techniques which provided the perception of usability of SMAT among the case companies and data gathered through semi structured interviews.</td>
</tr>
<tr>
<td>Overcoming tough competition</td>
<td>El–Dyasty (2007); Yang and Shang (2007)</td>
<td>SMAT implementation aids management in case companies in overcoming tough competition in their organization by using SMAT to make strategic decision such as pricing and data gathered through semi structured interviews.</td>
</tr>
<tr>
<td>Cost management</td>
<td>Oyewo and Ajibolade (2019); Yang and Shang (2007); Al-Dalabeeh (2012); Swenson et al. (2003); Jasch (2003)</td>
<td>SMAT implementation has a positive effect on cost management and cost reduction. Case companies uses target costing, value chain costing, activity base costing, life cycle and attribute costing in managing cost and data gathered through semi structured interviews.</td>
</tr>
<tr>
<td>Strategic decision making</td>
<td>Wiersma (2009); Xue (2005)</td>
<td>Case companies uses valuation of brand, Pricing strategy as well as costing strategy as part of SMAT implementation which helps the case companies in making strategic decision and data gathered through semi structured interviews.</td>
</tr>
</tbody>
</table>

#### 3.4. What leads to SMEs to adopt SMAT?

According to Kamilah (2012), there are five contingent variables that showed the antecedents for adopting SMAT among SMEs. The knowledge is chosen based on its theoretical relevance.
and its availability. Below are the metrics that were used as proxies for these contingent variables. The five contingent variables are: size of firms, intensity of market competition, and commitment of owners/directors of firms, advance manufacturing technology and the level of qualification of staff.

Previous research (e.g. Abosed et al., 2016; Kamilah, 2012; Al-Omiri & Drury, 2007 and Abdel-Kader & Luther, 2008) has repeatedly shown that the size of a company influences the use of SMAT among SMEs. An SME has low resources and quick internal communication processes, which makes management accounting activities easier to spread. Furthermore, SMEs are more dynamic and face more challenges. As a result, they need more control and knowledge about their business operations, necessitating the creation of SMAT.

The intensity of market competition has been argued to play a significant role in motivating management to improve management accounting structures and implement SMAT (Kamilah, 2012; Al-Omiri & Drury, 2007). Firms would likely need more reliable management accounting information as competition grows, in order to perform efficiently and avoid planning based on inaccurate information when making decisions (Kamilah, 2012).

Kamilah (2012) stated that since the owner/manager would almost certainly be involved closely in the management of the company, his or her commitment will have a direct impact on the degree to which SMATs are used. This claim is supported by previous management accounting research (e.g. Kamilah, 2012; Brown et al., 2004).

The degree to which SMAT are used has been shown to be influenced using modern technology in production activities in many large entities, but not in SMEs. Even though advanced manufacturing methods might be restricted to SMEs, it is believed that all manufacturing businesses use technology of some way to aid their production processes. Furthermore, in today's modern market, technology evolves at a rapid pace and is widely disseminated.

3.4.1 Operationalization
Table 7 enlists the variables to measure regarding adoption of SMAT is SMEs in food processing industries.
<table>
<thead>
<tr>
<th>Variable</th>
<th>References</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of the firm</td>
<td>Kamilah (2012); Abosede et al. (2016); Al-Omiri and Drury (2007); Abdel-Kader and Luther (2008)</td>
<td>According to Kamilah (2012), Size of firms should be measured using annual revenue. In this case of Nigeria, the study adopts the definition of SMEDAN which classified the enterprises on the basis of staff strength and assets. For instance, The organizations having number of employees from less than 10 but up to 119 with the worth of assets less than 10 but up to less than 100 million (naira) categorized as SMEs in Nigeria. Data gathered through semi structured interviews.</td>
</tr>
<tr>
<td>Intense of market competition</td>
<td>Kamilah (2012); Al-Omiri and Drury (2007); Hansen (1998)</td>
<td>Market competition, as a more important subset of environmental instability and used to see whether external factors have a positive impact on the degree to which Nigerian SMEs use SMAT. The intensity of market competition according to the respondent has a positive impact on the usability of SMAT among the case companies. Data gathered through semi structured interviews.</td>
</tr>
<tr>
<td>Commitment of owners/directors of the firm</td>
<td>Kamilah (2012); Ismail and King (2007)</td>
<td>The level of commitment of owner/directors of the firm to the use of management accounting practices within the firm is measured among the case companies. Data gathered through semi structured interviews.</td>
</tr>
</tbody>
</table>
Table 7 Operationalization of what leads to SMEs to adopt SMAT (Own Illustration)

**3.5 Outcomes (consequences) result from Application of SMAT by SMEs.**

Etim et al. (2020) study revealed the results relating to SMAT. Because of the potency of competition and the volatile business environment, the results suggest a broader adoption of these variables in the areas of competitor analysis, discovery of new techniques, and substitute product monitoring/analysis in managing SMEs. SMAT according to Etim et al. (2020) is needed for SME operators to survive and weather the uncertainties that come with operational outcomes. According to Lindman and Sexton (2018), a company's commitment to fix and solve perceived problems is the primary driver of SMAT growth in SMEs. A company discovers a market problem or question as an instinctive reaction and introduces solutions in the form of SMAT processes and techniques. The ideas are rational because they are derived from the truth of the micro-world that makes up an organization. The Social Constructionism theory, according to Lindman and Sexton (2018), can explain a company's understanding of a problem, resulting in the development of SMAT through problem solving. Different SMEs generate various viewpoints on what constitutes an issue. The perception of problems in SMEs that lead to the development of SMAT has been shown to be dependent on underlying contingencies time and time again.

According to the Etim et al. (2020) study, most of the sample SMEs operators have experienced significant increases in sales volume and value over the last five (5) years, implying that SMAT has aided the success of the SMEs sampled. This supports the results of Abdel-Kader and Luther (2006) and Alleyne and Weekes-Marshall (2011), who found a positive relationship between SMAT and the output of SMEs in the food and beverage industry and manufacturing firms in Barbados, respectively. Kamilah (2012) found a moderate, optimistic, and important relationship between AMT (Advance Manufacturing Technology),
costing systems, performance assessment systems, and SMAT. This suggests that companies that use AMT are more likely to use a costing system, as well as a performance assessment system and SMAT.

3.5.1 Operationalization

The following table enlists the variables to measure outcomes (consequences) result from using SMAT by SMEs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>References</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive edge over rival companies</td>
<td>Etim et al. (2012); Kamilah (2012); Abosede et al. (2016); Oyewo and Ajibolade (2019)</td>
<td>This is interviewed through semi structured questions to measure competitive edge over rival companies by SMEs as a result of SMAT adoption.</td>
</tr>
<tr>
<td>Business survival</td>
<td>Etim et al. (2020); Lindman and Sexton (2018); Kamilah (2012)</td>
<td>This is interviewed through semi structured questions to measure business survival by SMEs as a result of SMAT adoption.</td>
</tr>
<tr>
<td>Commitment to solve and fix problems</td>
<td>Lindman and Sexton (2018); Abdel-Kader and Luther (2006); Alleyne and Weekes-Marshall (2011)</td>
<td>This is interviewed through semi structured questions to measure commitment to solve and fix problems by SMEs as a result of SMAT adoption.</td>
</tr>
<tr>
<td>Advance manufacturing technology (AMT)</td>
<td>Kamilah (2012)</td>
<td>This is interviewed through semi structured questions to measure if SMEs continues to adopt AMT as a result of usage of SMAT.</td>
</tr>
</tbody>
</table>

Table 8 Operationalization of outcomes (consequences) result from using SMAT by SMEs

3.6. Empirical Review of Previous Studies

Etim et al. (2020) studies showed that majority of SMEs use SMAT in price determination, product costing, and cost control measures. Between 5% and 7.5% of the SMEs partly use SMAT, 12.5% and 17.5% moderately use SMAT, 40%, and 50% highly use SMAT, while between 27.5 to 40% very highly use SMAT. While, among the SMEs studied, the most popular costing method revealed here is product costing, followed by price determination, and
finally cost control. Etim et al (2020) study further revealed that the most SMEs use budgeting system practices is cash budget preparation. Their findings show that SMEs in Nigeria rarely plan sales and purchase budgets as part of their annual operations, making it difficult to forecast sales and purchase patterns, which could have a negative impact on operations, especially during times of shock. Etim et al (2020) study further showed that the most use performance evaluation practices by SMEs are customer analysis perhaps to understand those that can be granted credits. Return on Investment (ROI) and profitability analysis are carried out by only between 2.5% to 5% of the SMEs sampled.

The study of Kamilah (2012) showed a moderate, positive and significant relationship between annual sales turnover and the use of SMAT and a performance evaluation system. However, there is no support for any statistically significant relationship between annual sales turnover and the use of budgeting systems, decision support systems or SMAT. The study provides some evidence for intensity of market competition effect on the use three specific SMAT. The findings point to a small, optimistic, and important association between market competition intensity and the use of costing, budgeting, and performance assessment systems. However, there are no major relationships between the perceived intensity of market competition and the use of decision support systems and SMAT although the direction of association was consistently.

Kamilah (2012) further provide some evidence for an owner/manager relationship on the use of three specific SMAT. The results suggest a moderate, positive and significant relationship between the commitment of the owner/manager and the use of decision support systems and SMAT. However, there is no support for any statistically significant relationship between commitment of owner/manager and the use of costing systems, budgeting systems and performance evaluation system. Kamilah (2012) results show that there are no significant relationships between the level of qualification of accounting staff and the use of SMAT.

Ojua (2016) carried out a study titles application of SMAT in combating small business failures in Nigeria. The aim of the study was to investigate if SMAT application among SMEs in Nigeria can combat business failures. Data was gathered from fifty (50) SMEs in Nigeria using a cross-sectional questionnaire survey approach through the Lagos chambers of
commerce (LCC). The study found out most small businesses does not use SMAT in their decision-making process. The findings showed that there are no relationship between SMAT and small business performance/failures and concludes that despite lapses the use of SMAT would be a veritable tool for the survival of small businesses in Nigeria.

Achimugu and Ocheni (2015) carry out a study titled application of management accounting techniques in the public sector of Nigerian economy. Their study reviews the application of SMAT in the public sector of the Nigeria economy. The study used direct observation on the activities and performance of management of Federal Polytechnic, Idah. The study discovered that SMAT are not applied in the public sector organizations as they are more concern with the welfare effects of their actions rather than the profit/benefit or value generation from their actions. The study further recommends that public sector organizations should adopt the application of SMAT to suite the purpose for which they were established, most especially in the reduction of waste in management of public expenditures in Nigeria.

Oyewo and Ajibolade (2019) carried out a study titled ‘does the use of strategic management accounting techniques creates and sustains competitive advantage? Some empirical evidence’. The objective of their study was to examine extent to which uses of SMAT can create and sustain competitive advantage in the manufacturing sector in Nigeria. They gathered data obtained from annual reports of fifty-six quoted companies covering 10 years and analyse using descriptive statistics, cluster analysis, cross tabulation, Chi-square test of association, and discriminant analysis. They found that the frequency of high-adopters of SMAT was less than those of low-adopters; the adoption rate of SMAT was noted to be generally moderate. They further revealed that the usage of SMAT positively and significantly impact competitive advantage. They observed that intense users of SMAT were able to consistently outperform competitors at the industry level in the long-term and support the conclusion that to a large extent, SMAT usage can both create and sustain competitive advantage.

Ojua (2016) carry out a study SMAT Practices among Indigenous Nigerian Manufacturing firms. The study was performed to review the extent of SMAT application by business managers and accountants of manufacturing firms in Nigeria to make effective decisions. A sample of 10 manufacturing firms, 50 professional accountants and business managers working
in the organizations and adopted questionnaires to gather primary data. The results of the study showed significant improvement in production management and effective pricing policies among firms that adopted SMAT in their decision-making process. The findings of the study revealed the attainment of effective resource management which is the goal of management and that have implications for the firm’s management staff and accountants. The study therefore concludes on the need for managers to employ SMAP to enable them to identify, accumulate, and manage costs of their activities to ensure accuracy of their decisions. The study also focuses on the need to ensure reliance on SMAT to take decisions in an economy of unpredictable economic dynamics balanced with the need to attain set goals.

Branka and Andrijana (2012) carried out a study titled SMAT in Croatia. The research was carried out to provide an insight into SMAT and their implications on relevance and timeliness of information used managers. They administered questionnaire to multinational companies in Croatia. The results of the empirical research shows that the fundamental purpose of SMAT is providing broad scope of relevant and timely information and conclude SMAT are complementary and combining them will help manage costs.

Darius and Rasa (2015) in their study titled contingencies impact on SMAT usage in Lithuanian Companies. In their study contingency theory was applied to SMAT. They examined 3 contingency factors on the use of SMAT. Their work explained the extent companies in Lithuania use SMAT regarding the three contingencies. SMAT usage is more frequent in companies that experience a high level of competition intensity. SMAT usage is higher in companies using strategy. SMAT usage does not depend on company’s size. They also stated some challenges to application of SMAT which are unspecified financial accounting attitude to strategic decision making, a lack of knowledge, overheads in production process and resources of IT.

Oboh and Ajibolade (2017) in their study titled SMAT and decision making: A survey of the Nigerian Banks. They attempt to perform an empirical analysis of the viability of SMAT adoption in Nigerian banks, a developing country. They looked at how widely SMAT is used and how it contributes to strategic decision-making. They gathered information from 71 bank managers in Nigeria's 20 registered banks. Their findings indicated that SMAT differs from
other management accounting systems in terms of functionality and orientation. Their research discovered that banks in Nigeria use SMAT as a theory of activity rather than a term, and that SMAT contributes significantly to strategic decision making in the areas of competitive advantage and market share development.

3.6.1 Summary of Gaps in Reviewed Literature

From the literature review, Etim et al. (2020) showed that most SMEs adopt SMAT in price determination, product costing, and cost control measures. The most popular costing method revealed is product costing, followed by price determination, cost control. They further revealed that the most adopted budgeting system practice is cash budget preparation. However, Oboh and Ajibolade (2017) findings indicated that SMAT differs from other management accounting systems in terms of functionality and orientation. Their research discovered that banks in Nigeria use SMAT as a theory of activity rather than a term. That SMAT contributes significantly to strategic decision-making in competitive advantage and market share development. Etim et al. (2020) show that SMEs in Nigeria rarely plan sales and purchase budgets as part of their annual operations, making it difficult to forecast sales and purchase patterns, which could have a negative impact on operations, especially during times of shock. This refutes the findings of Kamilah (2014) that showed a moderate, positive, and significant relationship between annual sales turnover and the use of SMAT and a performance evaluation system. However, there was no support for any statistically significant relationship between annual sales turnover and the use of budgeting systems, decision support systems or SMAT.

Etim et al. (2020) study further showed that SMEs' most applied performance evaluation practices are customer analysis, perhaps to understand those that can be granted credits. Kamilah (2012) provides some evidence for the intensity of market competition effect on the use of three specific SMAT by pointing to a small, optimistic, and significant association between market competition intensity and the use of costing, budgeting, and performance assessment systems.

Ojua (2016) found that most small businesses do not use SMAT in their decision-making process. The findings showed that there are no relationship between SMAT and small business performance/failures and concludes that despite institutional lapses the use of SMAT would be
a viable tool for the survival of small businesses in Nigeria. This is in line with the work of Achimugu and Ocheni (2015) who discovered that SMAT are not applied in the public sector organizations as they are more concern with the welfare effects of their actions rather than the profit/benefit or value generation from their actions. However, this position was refuted by Oyewo and Ajibolade (2019) work where it was found that the frequency of high-adopters of SMAT was less than those of low-adopters, the adoption rate of SMAT was noted to be generally moderate. Oyewo and Ajibolade (2019) further revealed that the usage of SMAT positively and significantly impact competitive advantage. They observed that intense users of SMAT were able to consistently outperform competitors at the industry level in the long-term and support the conclusion that to a large extent, SMAT usage can both create and sustain competitive advantage. This buttressed the work of Ojua (2016) that showed that indicated significant improvement in production management and effective pricing policies among firms that adopted SMAT in their decision-making process.

The work of Branka and Andrijana (2012) was also in support of the findings where they indicate that the fundamental purpose of SMAT is providing broad scope of relevant and timely information and conclude SMAT are complementary and combining them will help manage costs. This is also in line with Darius and Rasa (2015) where they found that SMAT usage is more frequent in companies that experience a high level of competition intensity using strategy.
4. EMPIRICAL DESCRIPTION

The case companies have been introduced in this chapter. The respondents are not named for the reasons of confidentiality and GDPR measures.

4.1 Case A

Case A is a significant manufacturer of fast-moving products in the SME sector of the food industry of Nigeria. Case A started its business as an importer of biscuits in 2006 but continued upgrading its operations to attain the capabilities of manufacturing various biscuits in Nigeria. The company is divided into several divisions. Case A has 170 employees across all its locations with assets of 232 million nairas which fulfills the requirements of being SME according to SMEDAN. Employment of staff with required technical competencies and expertise has also been an essential part of the company's strategy to improve the company's performance. Moreover, the company is making efforts to be more competitive by providing the best quality biscuit at affordable prices to its customers.

Case A employs professionals with updated knowledge about SMAT applications in managing the company’s internal working and production process. The company has been engaging in the usage of SMAT in the business activities and processes since incorporation and has always updated its operations for obtaining better outcomes. Case A's big challenge is to streamline the internally managing activities and production processes to external dynamic business factors and change government policies and intensive business competition because such external elements are beyond the control of the company’s management team.

Form this company; three interviews were conducted, as shown in Table 11. The respondents were able to have a piece of good knowledge about the extent of SMAT applications in the organization.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Position</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Managing Director</td>
<td>A-MD</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Financial Accountant</td>
<td>A-FAC</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Finance Analyst</td>
<td>A-FAN</td>
</tr>
</tbody>
</table>

Table 9 Researchers Illustration of Respondents at Case A
4.2 Case B

Case B deals in the business of the production of cereals, spices, and flavors. The company has deployed zero tolerance for waste by ensuring control over raw material usage, monitoring wastes during the production process, and trying to implement the latest management accounting techniques to handle various operational aspects of the organization. Case B is also pushing to ensure that the machines work at the maximum efficiency levels to guard against machine wastage.

The company started the business in 2000 and has 150 employees with assets worth 196 million nairas, hence fulfilling an SME following SMEDAN. This company is a subsidiary company of a big corporate company in Nigeria however we still treat it as an SME because it is registered in the Lagos Chamber of Commerce and Industry (LCCI) in Nigeria as SME. Its size is that of an SME however its relationship with the parent company provides an interesting view into this type of hybrid organization, a wholly owned SME. As we discovered in our research process there are a substantial number of SMEs of this type, so having them in the data set will provide information to contrast against traditional SMEs as well as add insight into an additional type of SME.

The company carries out detailed verifications of materials and goods whether inbound production material or outbound finished goods and focuses on quality assurance by applying to SMAT. The company believes it is also getting benefit from the application of SMAT in the decision-making process to cope with the challenges of the current business environment and intense competition. Three interviews were conducted from the higher management of the company, as shown in the following table.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Position</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Director of Finance</td>
<td>B-DF</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Financial Controller</td>
<td>B-FC</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Management Accountant</td>
<td>B-MA</td>
</tr>
</tbody>
</table>

Table 10 Researchers Illustration of Respondents at Case B
4.3 Case C

Case C is a food processing company concentrating on agro-allied products. The company has been in business since 2002 and deals in the production of ‘cassava.’ The company transforms cassava roots into multi-use cassava starch and tries to combine the best of human and material resources to achieve a good market reputation through providing the best products. Still, the company is using traditional management accounting tools to manage its day-to-day work.

The company has 35 employees with assets worth 48 million nairas, hence it is defined as SME under the definition of SMEDAN. In this case, three interviews were conducted with the higher management, as shown in Table 13. The respondents are competent and have a good knowledge of the business but little focus on SMAT and its implementation.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Position</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>CFO</td>
<td>C-CFO</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Accountant</td>
<td>C-ACC</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Finance Analyst</td>
<td>C-FAN</td>
</tr>
</tbody>
</table>

Table 11 Researchers Illustration of Respondents at Case C

The company ensures a steady supply of raw materials from the farms for which the company has arranged long-term agreements as the company’s productivity depends upon the sufficient supply of the raw material that the farmers in the fields produce. The company frequently places training sections for the farmers regarding the latest agronomic practices. It takes great care and time to grow cassava plants before processing them into finished products. The company does not have much use of SMAT as a decision-making tool but relies mainly upon the traditional management accounting practices of costing and budgeting.

4.4 Case D

Case D was established in 2010 as a food processing company that caters to customer tastes by providing spices and cereals. Furthermore, the company is also famous for West African food products. The company is engaged in local research, application of SMAT, and ability to develop various lines of products. The company has 114 employees with assets worth 138 million nairas; therefore, it fulfills the criteria of an SME following the definition of SMEDAN.
Case D also employs professionals with updated knowledge about SMAT applications in the production process. In this case, two interviews were performed, as shown in Table 14. The respondents are highly professional, with a lot of knowledge about SMAT application as a decision-making tool and managing the company’s affairs.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Position</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Managing Director</td>
<td>D-MD</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Financial Accountant</td>
<td>D-FAC</td>
</tr>
</tbody>
</table>

Table 12 Researchers Illustration of Respondents at Case D

Case D has a team of experienced food technologists who drive the overall development and creativity in making cereals, spices, flavors, and West African foods. Case D has a furnished lab with analytical equipment to deliver consistent, quality, and safe products to demonstrate solutions through SMAT applications.
5. EMPIRICAL ANALYSIS AND DISCUSSION

In this chapter, empirical results are evaluated. First, the cases are examined separately, and then through discussion, have been presented based on the interview findings.

5.1 Empirical Analysis

According to A-MD,

“I think as compared to tradition management accounting methods the strategic management accounting methods are more helpful for giving more detailed information about the internal as well as external affairs of the company and I consider it usefulness ‘high’. I am particularly happy with my teams because they understand the challenges we are facing as an organization, it has not been so rosy at the moment but I want to totally agree that we are not where we used to be in terms of overall performance in the market. We are facing intensive competition in the biscuit manufacturing market but any how our share of the market has gone up from last a couple of years because we are offering products at affordable prices and our customer is also satisfied with the quality of the products. Our accounts department is able to produce information related to competitors’ product prices, changing products specifications and their market share”.

In his submission, A-MD thinks about the usefulness of SMAT as providing information about the internal and external business environment that helps make decisions to compete with the competition and increase market share. Therefore, it corroborates the position of Magd (2008), Lee et al. (2006) and Ranjbarian et al. (2012), Aksoylu and Aykan, E. (2013), which asserted that SMAT allows the firm to increase its market share, improve the performance of the firm in the industry and also better their operation to be ready to combat challenges in the industry.

According to A-FAN,

“In my view the strategic management accounting is more oriented towards the needs of the customers whereas traditional management accounting techniques are more focused to methods of controlling costs. I think if the customer is satisfied than our sale will increase and will create a competitive advantage for us, hence using the tools of SMAT are more beneficial for the progress of the organization and I perceived its usability ‘high’.”

Respondent A-FAN asserted in the above quote that his perception about the usability of SMAT is high, and it will provide a competitive product advantage through the loyalty of satisfied customers. In the literature, it is also evident that the application of SMAT has a long-term improvement in the organization's performance (Ku et al., 2010) by enhancing sales by
satisfying the customers and achieving this aspect as a competitive advantage (Armitage et al., 2016).

A-FAC explained his views that,

“….. according to my perception on the one hand, the tools of strategic management accounting cover the demands of business operations and, on the other side, provide information to the accountants and other managers regarding outward-oriented perspectives, including competitors and customers. SMAT usability increases the awareness about competitors in the market and their market share and this is knowledge is helpful in our internal accounting techniques to meet that outer competition of meeting prices as per customers’ demands”.

Here, the respondent highlighted the main feature of the SMAT that it had added advantage of capturing the external business matters as well that has theoretical relevance with Oyewo and Ajibolade (2019) as they described that the customer and competitor accounting falls outside the boundaries of traditional accounting but account in the territory of strategic management accounting.

According to B-DF

“Well, I perceived the usefulness of SAMT to be high, the way we think about the usefulness of these tools is very high here as we have it in our other office, although we had our own challenges at a time but the attitude of our senior executive has been very intense and at a point I began to feel our other office just wanted to choke our operation by imposing these tools on us but I and other team member can understand the purpose of such action from the other office but some few members of the team finds it difficult to understand and these tools has been very helpful in our daily operation, I can categorically states that the perception for these tools remain very high there is sufficient evidence for us to say the perception of the usefulness of these tools remains very good on our side, though at first we felt it was unnecessary but as times goes by we felt that it has been very useful to us in the area of our cost, comparing our standard with the industry, pricing and even know what our competitors are up to we are doing well actually in all these area and categorically state that the perception of usefulness is high”.

The respondent asserted that the perception is high, although senior executives were made to use SMAT. The respondent offered that the operation of Case B has been streamlining to SMAT, and this has made their processes smooth and increase profitability which corroborates the position of Majeed and Hamza (2012) that application of knowledge from an operation cost
analysis to increase the profitability of a business and the firm market share has gone up as a result of the reduction in the cost of the product through controlling wastes (Ojua, 2016).

B-FC, in his submission assert

“"My single answer to your question is that the perception of usefulness is very high. the implementation of these tools in our company is a holistic approach, all stakeholder in our establishment from the other office are made aware of the need to introduce the use and implementation of these tool, although there were issues before and after the introduction but as I speak there has been great result and it’s a win – win situation for us (both the other office and we at the small office) so I can perceive that everything is good when we use it”.

Respondent B-FC asserted that it is a holistic approach from the company’s stakeholder to adopt the uses of SMAT. Although, as a result, the perception in Case B is high; this is because it is used for strategic decision making and the need to also work in cooperation with the stakeholder in the business to ease decision making, this position corroborates the position of Kamilah (2012) and Ismail and King (2007).

B-MA explained that,

“I am particularly happy to tell you that the company management has found it easier to analyse value for the company using value analysis technique which one of the feature of SMAT. For instance, the quality costing has helped us in emphasizing on quality at every stage of food production process and also the costing strategy has helped us in minimizing costs and produce quality through the reduction of wastages and defects as well has also reducing the harmful effect of wastages in the environment, so the way we see the introduction or the perception of the usefulness of these management accounting tools is quite very good.”

Respondent B-MA, the perception is high because SMAT has offered them the possibility to analyze the company’s value and has also offered the strategy for cost minimization, waste reduction, and being environmentally friendly. This position corroborates the position of Yang and Shang (2007), Al-Dalabeeh (2012), Swenson et al. (2003), which states that SMAT implementation has a positive effect on cost management and cost reduction.
According to C-CFO,

“like we discussed before we started this interview, we currently use some other accounting tools which you called traditional management accounting techniques (budgetary and budgetary control) I really don’t know why you called them traditional management accounting techniques, maybe that is why they are not listed or mentioned among the techniques listed in your questionnaire, as you can see, we are a small company and we do not have resources to invest in other tools that you have listed here, besides we don’t have the need for it yet. To the best of my knowledge, we are doing very well with the so called traditional management accounting techniques”

The company is more focused on traditional ways of managing the business even though the conventional techniques are also the basis and part of SMAT (Cadez & Guilding, 2008).

C-ACC explained that,

“we currently use budget and budgetary control and we think that it has been useful to an extent, we usually have our budget at the beginning of every year and we work with it throughout the year although the budget is been reviewed periodically”

As per the nature of business activities, the researcher classifies the operation of Case C as life cycle costing since they can depict cassava from planting stage to harvest stage, as explained by the management, this is because the activity of Case C is mainly to grow cassava, store them and deliver to users. Case C stated the implementation of SMAT in small businesses should not be made if the approach is not suitable for the company. Since Case C does not have much awareness about SMAT, the responses to interview questions were limited in terms of their knowledge. Still, they were using some of the SMAT. Still, they were unaware of the proper technical names of those methods, like using target costing, benchmarking, and competitive position monitoring.

According to D- FAC,

“We have been using management accounting tool in our food production process since its establishment from 2010 and we are currently using some management accounting techniques in our daily operations, although we were not doing that bad initially but the need to better the way we do things came up and member of management had a brain storming session on how to be better off in the industry, then here comes the need to introduce some management accounting tool and
after it was introduced, we had challenges understanding the usage especially those at the lower cadre but as times goes on, the understanding of the usage became clearer to everyone and as I speak we do things far better the way it used to be”.

According to respondent D-FAC, the perception of the usefulness of SMAT is very high, which is because the daily operation became better through the uses of SMAT, which made it possible for Case D in making Strategic decision making and overcoming tough competition. El–Dyasty (2007) and Yang and Shang (2007) assert that SMAT implementation aids management in overcoming tough competition in their organization by using SMAT to make a strategic decision such as pricing.

According D-MD

“our thinking towards the uses of these tools has now became clearer, we all have better knowledge and understanding, we now can successfully know how to navigate through trouble times within the industry, for instance some of the techniques we have in operation has been useful in making strategic decision making as well as overcoming tough competition”

Company D is using SMAT successfully and getting benefits to better decision-making and competing with the competition that is in line with Wiersma (2009) and El–Dyasty (2007).

Further D-MD added that,

“there is an holistic approach in which all management and all staff has a role to play from planning to implementation and control of SMAT, as such we are happy that we are seeing result far more that our expectations, the use of some of these management accounting tool has been quite is high on our side, our quality costing has aided the organization in emphasizing quality culture for all company staff involved in the food production process attribute costing has helped the company separately costed the putting together of items involved in the production process”

According to the respondent, D-MD perceives the usefulness of SMAT to be high this is because quality costing and attribute costing employed by the case company has offered positive input in the company’s production process; this position corroborates Wiersma (2009) and Xue (2005), which states the uses of costing techniques in making the strategic decision.
A-MD said,

“we actually planned the adoption of some management accounting tools when the operation of the organization was getting complex which it as a result of the continuous increase in size of the company and we became a major player in the food processing industry, this force us to source for modern techniques in order to reduce costs and improve profitability, like I said previously, we are better off than what we used to be, the size of the firm began to expand at a time and the need to have a better management tools arises after which we contact some few management accounting consulting firm to draw-up strategy for the adoption of suitable management tool”

Respondent A-MD asserted that Case A adopted SMAT as a result of complexity in their operation, which lead increase in the size of the firm. At the same time, case A became a significant player in the industry, and as a result, the need for adoption of SMAT which is in line with the position of Kamilah (2012), Al-Omri and Drury (2007), Hansen and Van der Stede (2004), the authors stated that size of a firm and complexity of operation are usually factors many firms considered before adopting SMAT.

According A-FAC

“Some of example of management accounting tool in operation in our company includes: target costing, competitor positioning and benchmarking”.

A-FAC further asserts that

“the implementation of management accounting in our company is actually based on our ability after taking into consideration some technical factors”.

A-MD further emphasize that

“the use of management accounting tool over the years have made it easier for the company’s management to face competitors in the industry through benchmarking”

According to A-FAC and A-MD, company A employs costing techniques, competitor accounting, planning, Control, and performance measurements as described by Oyewo and Ajibolade (2019). Moreover, SMAT helps businesses gain a competitive advantage, raise profits, and boost customer loyalty over some time (Yang and Shang, 2007).
According to B-DF,

“the response to this question is very clear, we are a subsidiary of another big company in Nigeria and we do not have any choice other than to follow the instruction from our parent company and adopt what is been done at the head office because of the firm's structure- a subsidiary of a big multinational corporate company in Nigeria”

The respondent asserted that the perception is high, although they were made to use SMAT by senior executives. The respondent offered that the operation of Case B has been streamline to SMAT, and this has made their processes smooth and increase profitability which corroborates the position of Oyewo and Ajibolade (2019). Further, El–Dyasty (2007), Yang and Shang (2007), Magd (2008), Lee et al. (2006) and Ranjbarian at al. (2012) concluded that SMAT helps organization in gaining competitive advantages, raise profit as well as increasing customer loyalty.

D-MD asserts that

“I think that the size of the company matters in the implementation or adoption of a robust management accounting tool. More also, I feel the intense competitive environment in which we operate also contributed immensely to the adoption of management accounting tools.”

The respondent D-MD offered two reasons for the adoption of SMAT, which includes the size of the company as well as the intensely competitive environment, which is in line with Kamilah (2012), Abosede et al. (2016), Al-Omiri and Drury (2007), Abdel-Kader and Luther (2008) and Kamilah (2012).

According to A-FAC,

“the result of the adoption of management accounting tools has been a huge success for us as an organization and it justify the financial commitment. we invested in the adoption, we are competing favorable in the industry and thriving well coupled with that fact that the Nigerian government banned importation of biscuits in the country, the company was able to raise funds and start manufacturing of its imported product and survive competitors”.

Respondent A-FAC corroborated the position of Etim et al. (2020), which asserted that there is a significant increase in sales volume and value. A-FAC contended that the firm competes
favorably among the firm in the industry, which was as a result of the fact that the firm gained
more competitive edge after the adoption of SMAT, and this led to setting up their production
plant and business survive over the years as identified in Kamilah (2012); Ismail and King
(2007).

According to B-MA,

"As for me and I strongly believed that other member of the team would agree
with me, there has been great outcome in the adopting these management
accounting tools, it’s very clear even to the lowest person in our company that we
are far better off than our competitor in our costing strategy which we adopted in
combating high cost of our products."

According to Respondent B-MA, Case B outcome for adopting SMAT is the costing strategy
that has made the company competitive among other players in the industry as mentioned in
Etim et al. (2012), Kamilah (2012), and Abosede et al. (2016), which states that application of
SMAT offers a competitive edge over rival companies by SMEs as a result of SMAT adoption.

According to D-MD,

“the benefit gained from the use of management accounting tools by our company
includes competitive edge over rival companies, business survival as well as early
adoption and application of updated advance manufacturing techniques as well as
continuing to be in business”

The statement of D-MD presents that the application of SMAT results in a competitive
advantage that is better for the organization's long-term survival. It is evident from Oyewo and
Ajibolade (2019) study, who concluded that SMAT helps create and sustain competitive
advantage.

D-FAC concludes that

“By advising company to use management accounting tool because it has helped
the company to maintain profitability in term of performance over the years from
2010”
According to D-FAC, the consequences of adopting SMAT by the Case D is increased in profitability and has made the performance of the company stable, which the researcher classified to be the same conclusion with Etim et al. (2020), Lindman and Sexton (2018) and Kamilah (2012) which stated that firms would be able to continue to survive in the ever-dynamic business world as a result of the adoption of SMAT.

5.2 Discussion

We summarize the findings using the five categories of SMAT explored by Cadez and Guilding’s (2008) and Oyewo and Ajibolade (2019). For each technique, we report the perception, usefulness, level of adoption and expected outcomes in the SME sector of the food processing industry in Nigeria that is using SMAT, and we classify the perception of usefulness extent as “high,” “moderate,” or “low”. Perception of usefulness is explored qualitatively during the interviews by using follow-up questions asking participants to describe how they perceive the usefulness of SMAT. In an attempt to get consistent responses regarding the perception of the usefulness of SMAT, we describe the three categories as follows: (1) high usage indicates the technique is extensively used, (2) moderate usage indicates that technique is used but not to full potential and (3) low perception indicates that technique had either been very recently used or used on few occasions.

Only a few techniques out of the nineteen (19) SMATs identified by Oyewo and Ajibolade (2019) experienced a high perception in SME food processing companies in Nigeria. The companies consider SMAT better than conventional management accounting practices as A-MD said that he thinks compared to traditional management accounting methods, the strategic management accounting methods are more helpful for giving more detailed information about the internal and external affairs of the company. However, the companies are only use those techniques they consider the most suitable according to their business strategy, but case C was not so much aware of SMAT.

As D-MD explained, the internet is a good source of knowledge on any topic, including management accounting. He further elaborated that owners and management of organizations got awareness about SMAT during informal gatherings and friend’s parties and more formal ways in the shape of seminars held at the chamber of commerce in Nigeria. As a result, they
share the managing techniques regarding costing, planning, control, decision-making, and performance measurement.

Among the group of costing techniques, the perception of the usefulness of ‘target costing’ has been considered ‘high’ among all the case companies, whereas case C was also considering life cycle costing useful at ‘moderate’ level, in accordance with the nature of it business that is seasonal based business. In fact, some of the interviewees were not aware of various costing techniques. However, their primary motives are to minimize the costs and decide to decide prices at keeping a certain percentage of the profit, which is the main attribute of target costing.

As far as planning, controlling, and performance measurement are concerned, all the interviewees perceived that the method of ‘benchmarking’ is the most suitable for them. It seems that this a common practice of the food processing industry in the SME sector of Nigeria. In addition, the interviewees described the importance of handling environmental issues through environmental management accounting. Still, due to a lack of resources, the companies are unable to implement this in their accounting practices, and the companies are unable to use concepts of integrated performance measurement due to the limited skills and knowledge of their employees. Moreover, the management of such SME companies is satisfied to meet the established standards as said by the B-MA. Therefore, they thought that benchmarking is the most suitable to meet their operational targets.

Moreover, to judge competitor accounting, all the four case companies focus only on tracking competitive posts, competitors’ products, and market share. Key management in SMEs seems to be pursuing an institutional entrepreneurship approach (Akenbor & Okoye, 2012). To be competitive, it is vital to know the position of the competitor in the market to have a competitive advantage is a significant source of increasing the performance of the organization since a competitive advantage refers to the superior performance of an organization over other organizations operating in the same industry (Holm et al., 2016) and studies have shown the linkage of competitive advantage to organizational performance which is related with researches of Barney (2002) and Njuki et al. (2013).

The perception regarding other aspects of the cost, under the umbrella of SMAT, such as attribute costing, value chain costing, activity-based costing, and activity-based management,
is moderate because it is challenging to implement due to limited resources. We believe informants’ perception is accurate regarding these techniques because these require plenty of extra efforts. For example, activity-based costing consists of identifying important activities and then allocating the related costs with each activity in terms of overhead and fixed costs. The whole procedure requires a lot of work and human and capital resources difficult for SMEs to manage.

However, one company uses the method of life cycle costing to some extent because its business is season-based. However, attributes of target costing have still existed when the company determines the price of its products. Therefore, it may be concluded that the companies that deal in the SME sector of food processing in Nigeria perceive that the target costing technique is an appropriate method for calculating costs and determining the products' price.

Furthermore, the companies are using benchmarking techniques for planning, controlling, and performance measurement. Benchmarking is a more traditional way that measures internal activities with a specified ideal standard. As the literature describes, the other methods for this category are integrated performance measurement and environmental management accounting. Still, the companies in our sample are either not aware of them or do not have the resources to account for them. Thinking of the limited resources and the human resource capabilities of the SMEs of the food processing industry, the benchmarking technique may be considered a suitable method for them that those companies are already using. However, the other procedure like environment management accounting should be used not only in the food processing industry but also in all other organizations belonging to any industry considering protecting the environment.

As far as the decision-making process of food processing companies of SMEs is concerned, the companies have the strategy to provide the products to the customers at the lowest prices available in the market to be competitive in the market. However, the companies also try to maintain the quality of the products to retain the customers. The companies decide the matters related to the costs based on market information for developing and identifying superior strategies for obtaining a sustainable competitive advantage to achieve these targets. The
elements which determine product prices are competitor prices, market growth, product demand, and economics of scale. To some extent, branding also accounts for the strategic decision-making for the companies regarding costing, pricing, etc. Our selected companies’ financial valuation of the brands conducted based on the elements that ascertain the strength of brands like leadership, trends, stability, and historical brand profits.

All our selected companies perceive that it is essential to analyze the market positioning of the competitors, and the SMAT provides an excellent platform to do this. Such as by using the SMAT, the competitor's volume of sales, per-unit costs, and market share may be analyzed. But considering the SME sector, a lot of data usually available in a financial statement cannot be assessed because food processing companies of the SME sector do not publish such types of statements. Therefore, the analysis of the competitors is mainly based on subjective measures.

The research work reveals that the case companies are still mainly using the traditional ways of managing their operations. However, the respondents believe that using SMAT significantly and positively affects the competitive benefit; this is also supported by Oyewo and Ajibolade (2019). To get the competitive advantage was the primary concern of the case companies. But the rate of adoption of competitor accounting is moderate, and that of customer accounting is zero.

However, for each case's SMAT adoption, implementation, and usage were distinct to some extent as per their volume and nature of businesses. Case A implemented SMAT according to the existing framework; Company B implements SMAT to mirror that of the parent company; Case C does not have much awareness about public description of SMAT, but the usage was determined to be in line with the existing framework using the researchers’ knowledge; Case D uses and implements most of the SMAT with its features. From the results of perception of usefulness and implementation, Case A and Case D’s perception of the usefulness of SMAT is higher than Case B and Case C’s. The response showed that the perception of the usefulness of SMAT would help improve the company’s position in line with Etim et al. (2020), where it was stated that SMAT is needed for SME operators to survive and weather the uncertainties come with operational outcomes.
The usefulness of SMAT was not the same in the case of companies. In Case A, target costing, benchmarking, pricing strategy, and competitor position tracking was perceived as high. This is because the techniques adopted by Case A drive the firm in the direction of the company's strategy. In Case B, the usefulness of pricing strategy, brand valuation, competitor tracking, benchmarking, and target costing were perceived as high because the techniques adopted allow Case B to be in charge of its entire operation to maintain the value of its brand. In Case C, life cycle costing was in use, although with low perception, because the process in Case C is usually seasonal, and the need for SMAT is considered essential. At the same time, Case D perceived the usefulness of target costing, benchmarking, pricing strategy, and competitor position tracking as high due to positive results.

With few exceptions, customer-focused techniques, costing techniques, and competitors' accounting are moderately and highly perceived while customer accounting techniques are not in use. This finding implies that SMAT could replace the traditional management accounting practices (such as budget and budgetary control) in SMEs in the food processing industry in Nigeria. The impact of various elements like the type of strategy adopted and company size are no clear. However, despite the low volume of research in this area, a significant positive perception of SMAT usefulness on several aspects of SMEs in the food processing industry in Nigeria is evident in the context of use in their operation. The perception of usage of SMAT positively and significantly impacts the perception of competitive advantage. It can be noted that intense users of SMAT believe they can outperform competitors consistently. The study's findings show that the high perception of SMAT may be attributed to the fact that information and expertise relating to SMAT are the most readily available instead of traditional management accounting techniques, which is consistent with Oyewo and Ajibolade (2019).

From practitioners' view, top management may take the initiative to introduce strategic-oriented techniques like SMAT in SMEs to improve efficiency in resource allocation and to facilitate more accurate and timely strategic decisions. However, it was analyzed that fear of change by staff and management, cost of implementing SMATs, the limited profit of SMEs, unqualified accounts personnel, and little knowledge of SMAT were hindrances to the implementation of SMATs by SMEs.
Therefore, the level of adoption of SMAT differs among the firms. The research question aims to determine why SMEs in the food processing industry in Nigeria adopt SMAT or what leads to the adoption of SMAT. Case A adopts target costing, benchmarking, pricing strategy, and competitor position tracking to meet its obligations in the industry, While Case B adopted pricing strategy, brand valuation, competitor tracking, benchmarking, and target costing. Case C adopted life cycle costing, and Case D adopted target costing, benchmarking, pricing strategy, and competitor position tracking. Adopting these techniques resulted from globalization, economic and technological developments and changes in customer preferences have recently changed firms’ products and services and their design, manufacturing, and presentation processes. Thus, the scope and amount of information firms expect from accounting have also changed. In line with the changes, there has been a shift from traditional management accounting such as budgetary control to SMAT.

Moreover, the study discovers that some SMEs adopt SMAT because there is a need to reduce cost, management control purpose, performance evaluation, and product management. Therefore, SMAT emphasizes strategic positioning and combines information on customers, competitors, and the market, which in theory enable SMEs to gain a competitive advantage and enhance their market share.

Seeing that the overall adoption of SMAT by the study companies was moderate at best, the inability of some SMEs in Nigeria to favorably compete at the international market may not be unconnected to the inappreciable level of adoption of SMAT, among other challenges. It is not the mere adoption of SMAT that sustains competitive advantage as established by the result of this study, but its intense usage. Organizations seeking strategies to improve their competitiveness may consider the rigorous adoption and implementation of SMAT. New management accounting and control systems, such as activity-based costing (ABC), can improve the relevance and quality of information management to keep the organization smoothly run. In addition, when the business environment changes and reliance on advanced manufacturing technology intensifies, executives tend to use management accounting information in their daily decision-making.
It is acknowledging that the adoption and extensive usage of SMAT would impose requirements on the resources and organizational structure of adopters, management of SMEs is essential to remove or at least diminish whatever hindrance that may confront its adoption as well as an implementation which may include human barrier, lack of technological equipment, cost, or the subsuming of management accounting function within the financial accounting system. Given the future orientation of SMAT, it is important to stress that the benefits of its adoption may not materialize in the short run. Still, in the medium- to long-term — this is crucial to avoid getting discouraged when adoption benefits do not accrue immediately.

Many SMEs may have some constraints in adopting SMAT due to their relatively small size and limited resources; like more prominent firms, SMEs face similar complexities and uncertainties and are more prone to failures. Therefore, strategic, accurate, and reliable strategic information for prompt decision making, which SMAT broadly provides, is equally significant for SMEs. In this regard, SMAT assumes a potentially important function for SMEs. Based on the literature, the firm's size was an aggregation of various contributing sub-factors such as capitalization level, asset base, and several branches, presence or absence of a well-communicated organizational strategy, the number of years of operations of the firm as a legal entity (age of the firm) is evaluated whether it would be a determining factor to the adoption of management accounting techniques. The subsidiary factors noted as other internal factors such as the presence of quality control mechanisms and knowledge management practices were also included in our findings. The external factors include advanced manufacturing technology, intense market completion as well as the commitment of owners.

Case A and D adopt SMAT putting into consideration the size of the organization before adoption. This is the main reason in Case A and D, SMAT framework is believed to be successful. This is not the same in Case B and Case C. Case A, B, and D success is linked to intense market competition available in the business environment and commitment of owners/directors of the firm. Case C’s SMAT adoption does not even exist—the failures of Case C adoption of the SMAT framework result from low-level knowledge of the subject matter.
Case A and D’s SMAT adoption were also derived from advanced manufacturing techniques. Case A uses SMAT used in large organizations, derived from its own strategies and objectives. This is the main reason why Case A’s SMAT is successful. Case B employed SMAT, and its flexibility to align its objective with the parent company fit well within SMEs, resulting in the perception of the usefulness in very high. Case B’s success is perhaps linked to the usefulness of the SMAT used in the parent company, and the perception of the usefulness of Case B is also high. Case C’s uses of SMAT do not even exist; however, based on its business features and strategies, the researcher found a way to imbibe it into the SMAT framework. Although the failures of Case C use of the SMAT framework result from low-level knowledge of the subject matter, the researchers noticed that the perception of the usefulness is considerably low.

As far as outcomes are concerned, Case A adopted target costing, benchmarking, pricing Strategy, and competitor position tracking, and the consequences of adopting the techniques has been enormously beneficial in finding solutions to the low cost of production, and this has also led to a competitive edge over rival companies as well as advance manufacturing technology. Competitive edge over rival companies, business survival are the consequences for adopting pricing strategy, brand valuation, competitor tracking, benchmarking, and target costing for Case B. Case C adopted life cycle without any form of consequences. Still, the company is successful in its parameters. Case D adopted target costing, benchmarking, pricing strategy, and competitor position tracking, which has to allow Case D to compete favorably within the industry, thereby making business survival easier for Case D in the business environment.

It is believed that the benefit of adopting SMAT depends upon certain contingent factors that may be intrinsic to SMEs, such as their drive for innovation in gaining a competitive advantage over competitors, the need for increasing the customer base and expanding their market share. According to Abosede et al. (2016), various ways can be done by SMEs to achieve performance above average. Still, the two most crucial and essential are internalizing the changes or applying the right strategy effectively and implementing SMAT that is conceptually created for that purpose through the improved strategic position of competitiveness, continuous improvement, and the information's accuracy for decision making.
Significant findings present that while costing, the companies perceive that compared to traditional costing methods for determining the pricing of the products, the technique of target costing is the most appropriate. Sometimes the quality may be compromised by using this costing strategy but to compete in the market, the perceptions of using target costing among the other SMAT is high. However, the trend of the companies in our sample towards quality costing was low, considering that it will increase the prices, the companies will not be in a competitive position in the market because the level of income of the people is generally low in the country. Therefore, they make the purchasing decisions based on the prices of the products.

However, the users of SMAT sustain their marked position as well, but it depends upon the level of adoption of SMAT and the extent of using SMAT; the organizations improve their activities and operations for sustaining the competitive advantages. As the traditional management accounting technique and the most used method is budgeting used for the long term and for the medium and short term, which is also supported by Oyewo and Ajibolade (2019).

While other external extenuating factors affect SMEs, SMATs adoption provides reasonable assurance that the decision-making process is scientific and appropriate for the sustainability of the business. SMAT has an enormous role to play among SMEs because it drives strategic innovation and thinking. Additionally, the SMEs in the food processing industry significantly impact society and, therefore, directly impact the community. In recent times, SMEs are trying to become innovative as much as possible by following specific procedures and actions. SMAT may assist companies and manufacturers in being creative in the application of SMAT to their operations.

The adoption of SMATs has become very important for all organizations, especially SMEs, to survive and grow in the face of tough competition and a complex and changing business environment. The literature suggests that benefits such as value-creation, better strategic decision-making, and gaining competitive advantage may ensure from the adoption of SMAT. Adopting SMAT to achieve sustainable competitive advantage is particularly applicable to SMEs operating in the food processing industry in Nigeria. This is because the performance of several SMEs in the food processing industry in Nigeria has been unsatisfactory, and the
adoption of SMAT as an innovative management accounting practice could be a strategy to reinvigorate their competitiveness.
6. CONCLUSION
The final chapter presents the conclusion on the perception of the usefulness, level of adoption, and outcomes regarding SMAT among SMEs in the food processing industry of Nigeria. The chapter also describes significance and limitations and offers further suggestions for future research.

6.1 Conclusion
In this thesis, the phenomenon of SMAT in SMEs in the food processing industry of Nigeria is studied. Multinational organizations and companies of developed countries are successfully using SMAT to run their business operations. Still, research on SMAT in the food industry in developing countries is understudied. So, the motive was to analyze the perception, level of adoption, and expected outcomes of the SMAT in a developing country like Nigeria.

A significant positive perception of SMAT usefulness on several aspects of SMEs in the food processing industry in Nigeria is evident in our respondents. The usage of SMAT positively and significantly impacts respondent’s belief in their competitive advantage. There has been a shift from conventional management accounting such as traditional budgetary control to SMAT.

SMAT emphasizes strategic positioning and combines information on customers, competitors, and the market; this is believed to enable companies, including SMEs, to gain a competitive advantage and enhance their market share. Our case companies seeking strategies to improve their competitiveness all considered the rigorous adoption and implementation of SMAT. Given the future orientation of SMAT, our respondents emphasized that it is essential to acknowledge that the benefits of SMAT adoption may not materialize in the short run. Still, the medium to long term is crucial to avoid getting discouraged when adoption benefits do not accrue immediately.

It is important to note that owners and management of organizations got awareness about SMAT during informal gatherings and friend’s parties and more formal ways in the shape of seminars held at the chamber of commerce in Nigeria. They share the managing techniques regarding costing, planning, control, decision-making, and performance measurement—however, the internet is a good source of knowledge for them.
With few exceptions, customer-focused techniques, costing techniques, and competitors' accounting are moderately and highly perceived while customer accounting techniques are not in use. Moreover, the management of the sample SME companies thought that benchmarking is the most suitable to meet their operational targets and the perception of usage of SMAT positively and significantly impacts the perception of obtaining competitive advantage. This finding implies that SMAT could replace the traditional management accounting practices (such as budget and budgetary control) in SMEs in the food processing industry in Nigeria.

It is believed that the benefit of adopting SMAT depends upon certain contingent factors that may be intrinsic to SMEs, such as their drive for innovation in gaining a competitive advantage over competitors, the need to enhance their customer base, and to expand their market share. In our cases, SMEs who used SMAT reports for decision-making performed substantially better.

SMAT has a significant impact on beliefs about various aspects of the business, especially cost reduction and quality improvement. Firms using SMAT believed they have better financial and non-financial performances than the other firms. It may be concluded that the firms using management accounting techniques showed a great interest in adopting SMAT. Still, they consider budgeting techniques as the fundamental tools and the basis of their use of SMAT. However, the non-adopting firms mainly focus on conventional management accounting techniques like cost accounting and budgeting.

The research work presents that the case companies are also using the traditional ways of managing their operations such as case C; however, the literature suggested that by using SMAT such as competitor accounting and customer accounting, competitive advantage can be created and sustained. The utilization of SMAT significantly and positively affects the competitive advantage (Oyewo and Ajibolade, 2019) that to obtain the competitive advantage was the main concern of the case companies. But the rate of adoption of competitor accounting is moderate, and that of customer accounting is zero.

The technique of target costing is the most appropriate. Sometimes the quality may be compromised by using this costing strategy but to compete in the market, the perceptions of
using target costing from among the other SMAT is high. However, the trend of the companies in our sample towards quality costing was low. Under the umbrella of SMAT, like attribute costing, value chain costing, activity-based costing, and activity-based management, the perception regarding different cost aspects is moderate because it is challenging to implement with limited resources. Therefore, it may be concluded that the SME sector of food processing in Nigeria perceives that the target costing technique is an appropriate method for calculating costs and determining the products' price.

The factors that decide the pricing of the products are competitor prices, market growth, product demand, and economics of scale. To some extent, branding also accounts for the strategic decision-making for the companies regarding costing, pricing, etc. All of our selected companies perceive that it is essential to analyze the market positioning of the competitors, and the SMAT provides an excellent platform to do this. To obtain the competitive advantage was the primary concern of our case companies. But the rate of adoption of competitor accounting is moderate, and that of customer accounting is zero. The traditional management accounting techniques and the most used technique are budgeting, which has been used not only for the long term but also for the medium and short term.

The results also show that some SMEs were not benefiting from the SMAT advantage, which are hidden factors of their failures to cope in an ever-dynamic business environment. This, therefore, calls for a dual policy shift to first broaden the limited knowledge of SMAT by SMEs management through training by trade associations, educational institutions, and professional accounting bodies in terms of the impact on production, profitability, and decision making and second for the management of SMEs to start adopting and implementing SMAT gradually with the simplest tools and gradually attaining full usage. The user of SMAT sustains their marked position but it depends on the level of adoption of SMAT and the extent of using SMAT.

It has been further concluded that with the increasing local and global competition in the business environment, the responsibilities of the accounts have also been increasing. Conventionally, they perform the duties that are internally focused and assist the higher management by providing information to plan, control, and helpful in decision making. But,
now, there is a need to improve their scope by adopting externally oriented management accounting techniques and play a part in forming organizational strategies and their implementations.

Last but not least, other significant findings from the analysis show that human capital is a more influential factor for SMEs than technology. This is because technology only assists them in handling different activities, but the competent people are initiating new ideas and new projects. Therefore, human capital is better positioned to decide which technological tools are more effective for the firms to implement during their business processes and operations to create competitive positioning.

**6.2 Significance of the Study**

The research work contributes towards the literature by increasing the knowledge regarding the perception of the usefulness of SMAT and the implications of SMAT practices and its awareness in the SME sector. This study seems to be the first that the researchers are believed to have been conducted based on gathering data through interviews (qualitative research) on the perception of the usefulness of SMAT, its adoption, and outcomes in the SME sector in the food processing companies in Nigeria.

Moreover, the larger and smaller firms' policymakers, owners, and managers can benefit through the knowledge and awareness of SMAT and its implementation in their day-to-day business operations.

Furthermore, SMAT is beneficial to society through its positive influence on the performance of the organizations. There also exists a connection between society and organizations. SMAT provides internal and external information that is helpful to achieve organizational goals. According to Oyewo and Ajibolade (2019), organizations are an intrinsic part of any society; therefore, the progress of the organizations is expected to have a positive impact on society as well. It can also be concluded that the knowledge of using SMAT can enhance the effectiveness of the organizations in achieving their goals that would result in the overall prosperity of the economy of any country.
6.3 Limitations with Suggestion for further Research

There are always some demarcations and limitations that can occur during the research, and therefore, like every other study, ours have limitations that offer opportunities for future researchers.

This research focused on SMEs in the food processing industry of Nigeria, and the sample is small and limited to participants’ in particular geographic regions of Nigeria; therefore, provided information may not be valid for other areas and markets. This fact limits the global generalizability of our findings. Thus the research on SMAT in SMEs can be expanded by considering industries other than food processing and in different geographical areas.

In total, eleven people from four companies were interviewed to complete this research work. Although the gathered data was sufficient to conduct a comprehensive analysis and produce results, future research may increase the number of interviewees having more knowledge, experience, and insights on SMAT. Further researchers may use other methods, for instance, quantitative research methods using a survey technique that offers the potential for more generalizability of results based on a larger sample size.
References


NATIONAL POLICY ON MSMEs (Latest Review) : https://smedan.gov.ng/downloads/ Extracted dated 30.04.2021


APPENDIX

INTERVIEW GUIDE

Dear Respondent,

The purpose of this thesis is to investigate extent of strategic management accounting techniques (SMAT) applications in SMEs. The aim is to contribute to existing literature with an explanatory theoretical model that highlights the extent to which SMAT has been widely used by SMEs, what led to the uses as well as the outcome of use of SMAT. The interview is structured to gather information on three core areas. The first one addresses how is SMAT useful or not for SMEs. The second considers what leads to SMEs to adopt SMAT (antecedents). The third considers outcomes (consequences) result from using SMAT by SMEs.

For the questions regarding extent of SMAT use by SMEs, please consider what improvements or achievement has been benefited as a result of adoption of advance manufacturing techniques (AMT). When asking about what leads SMEs to adopt SMAT? We are interested in what are the considerations before SMAT can be adopted. When asking about outcomes (consequences) result from using SMAT by SMEs. We are interested in what are the results after SMAT was adopted.

General information

1. How many employees are working in your company?
2. What is your position in the company?
   - Main responsibilities?
3. How long have you been with the firm?
4. How long have you worked within the food processing industry?

   Consider your manufacturing process, choose one adopted SMAT, and answer the following questions according to the extent of use of the techniques:

   - Can you please describe the technique adopted and how it is being applied in your company?
   - What led to the selection and use of this technique?
Has there been result from the use overtime?

What is the perception of usefulness of SMAT for SMEs in the food processing Industry in Nigeria?

From the following category of SMA techniques, which SMAT has been implemented and used by your company:

- Costing techniques
- planning, monitoring, and performance measurement techniques
- strategic decision-making techniques
- competitor accounting techniques
- consumer accounting techniques

1. How will you describe your perception (High, Moderate or Low) of usefulness of the above techniques you employed in your production process?
   (a) How would you explain the use? What are the reasons for the use?
   (b) If it is used on a low scale, what are the reasons that it is not widely used?

2. Considering the above selected SMAT implemented, how has SMAT implementation aids management in overcoming tough competition in their organization?

3. Considering the above SMAT implemented, how has SMAT implementation has a positive effect on cost management and cost reduction?

4. How has SMAT implementation can help or will not help in making strategic decision

What leads to SMEs in the Food processing industry in Nigeria to adopt SMAT (antecedents)?

If you consider the whole use and procedures discussed above, what would you say led to adopt SMAT in the food production process of your company?

For example:

- Size of a firm
- Intense of market competition
- Commitment of owners/directors of the firm
• Advance manufacturing technology (AMT)
  - If you discuss generally, what would you say are the motivations that led to using SMAT in the food production process of the company?

**What outcomes (consequences) result from using SMAT by SMEs in the food processing industry in Nigeria?**

If you consider the whole use and procedures discussed above, what would you say are the outcome of adopting SMAT in the food production process of your company?

For example:

• Competitive edge over rival companies
• A commitment to solve and fix problems
• Business survival
• Advance manufacturing technology (AMT)
  - If you discuss generally, what would you say are the benefits/would be the benefits of using SMAT in the food production process of the company?
  - If you discuss generally, what would you say are the challenges of using SMAT in the food production process of the company?

**Ending question**

- Is there anything else you would like to say in addition?

Thank You!