DRIVERS OF SMALL-SCALE AGRIBUSINESS PERFORMANCE IN GHANA: EVIDENCE FROM THE NKORANZA SOUTH DISTRICT

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BLOEMFONTEIN
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DECLARATION

I, AVUDUFU FELIX YAO, student number _____, do hereby declare that this research project submitted to the Central University of Technology, Free State, for the Masters of Philosophy in Entrepreneurship, is my independent work; and complies with the code of Academic Integrity, as well as other relevant policies, procedures, rules and regulations of the Central University of Technology, Free state; and has not been submitted before to any institution by myself of any other person in fulfilment (or partial fulfilment) of the requirements for the attainment of any qualification.

_____Felix Avudufu Yao_____ **18-10-2022**

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ABSTRACT

This study investigated managerial expertise, information asymmetry, transaction cost, and access to credit as drivers of small-scale agribusiness performance in the Ghanaian context. Sales and employment growth were used in measuring performance. A cross-sectional study based on a positivist philosophy was adopted, and a multiple linear regression analysis was executed to test the impact of these drivers on the sales growth and employment generation of SSABs, measured in terms of employment and sales growth. The same technique was implemented to assess the predictive effects of business technology, business age, and managers' educational level on the SSAB performance.

The research employed the Resource Based View (RBV) as the theoretical lens. Primary data were collected in the survey by administering structured questionnaires to a sample of 200 SSABs in the Nkoranza South District of the Borneo East District. Of the 200 questionnaires distributed,192 were returned, generating a response rate of 96 %. After that, multiple regression analyses and the spearman correlation coefficient were employed to determine the relationships among the variables and their combined predictive power.

The findings revealed that managerial expertise, information asymmetry, transaction cost, and access to credit positively impact SSAB sales and employment growth at a 1% significant level. Secondly, firm and business owner characteristics such as business technology, business age, and managers' educational level correlate positively with sales and employment growth. The correlations are statistically significant at the 1% level.

This study adds to the limited research on SSABs. The findings have important implications for policy and practice regarding improving SSAB performance in Ghana. It also creates a knowledge base for SSAB owner managers to acquire the correct information for management decision-making, reduction in transaction cost, and sources of government financial support for SSABs to achieve higher performance.

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DEDICATION

This study is dedicated to the memory of the late Josephine Adzoa Biga

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ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AGRA	Alliance for Green Revolution in Africa
ANOVA	Analysis of variance
DESA	Department of Economic and Social Affairs
EGS	Environmental, Social, and Governance
FAO	Food and Agricultural Organisation
GAIP	Ghana Agricultural Insurance Pool
GASIP	Ghana Agricultural Sector Investment Programme
GDP	Gross Domestic Product
GOG	Government of Ghana
GSS	Ghana Statistical Services
IFAD	International Fund for Agricultural Development
IIPACC	Innovative Insurance Project for Adaptation to Climate Change
MEI	Ministry of Economy and Industry
MOFA	Ministry of Food and Agriculture
MSME	Micro, Small, and Medium Enterprises
NSD	Nkoranza South District
PDO	Programme Development Objective
SAP	Sustainable Agricultural Practices
SDG	Sustainable Development Goals
SSAB	Small-Scale Agribusiness
UN	United Nations
YAFP	Youth in Afforestation Programme

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CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

The world population is projected to increase significantly in the next few years. Accordingly, it is projected that the demand for agricultural products and wholesome food will increase by approximately 70 % by 2050 (the Food and Agricultural Organization (FAO, 2012; Baker et al., 2020). The FAO (2021) states that about 800 million people globally will be hungry in 2020, and almost 2.37 billion will be without sufficient food by the same year. For African Nations, including Ghana, Badiane and Ulimwengu (2017) predict a similar expectation.

These ominous predictions come when good nutrition remains out of reach for nearly every region of the world. Therefore, a country like Ghana, a non-industrialised nation, must focus on food production to cater to its ever-growing and sizeable population (FAO, 2015; World Bank, 2015). Not surprisingly, Ghana and other African countries signed a deal for Agriculture Development Programme (CAADP) project in 2014 (Global Food Security Strategy (GFSS), 2018). The project implementation aimed at doubling agricultural production by 2025 while retaining a six % improvement in agricultural production to reduce hunger and poverty. However, Ghana’s performance subsequently worsened four years after the implementation.

Agriculture is essential to Ghana's economy since it employs more than 55 % of the population and generates about 25 % of the country's GDP and export revenues (Christiaensen, Demery & Kuhl, 2011; Killen, 2011). The expected increased demand for food products places the agriculture sector in a prominent position (Badiane & Ulimwengu, 2017) to increase productivity. The importance of small-scale agribusinesses (SSABs) in agriculture cannot be overstated, as most businesses contributing to agriculture’s share of GDP are small-scale (Abor & Quartey, 2010; Frimpong, 2013; Benin et al., 2013). Given their importance, SSABs need to be researched. This research investigated the impact of

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managerial expertise, transaction cost, and access to credit on SSAB sales and employment growth. Studying these managerial aspects of SSABs involves blending business management principles and practices with the science of agriculture (Dabaga, 2014). The research is, therefore, multi-disciplinary because while the context is agricultural, it concerns small business management and entrepreneurship. The study resonates with SDG8, which addresses employment generation. Goal 8 aims to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" (…)

1.2 PROBLEM BACKGROUND

The agricultural sector's viability determines Ghanaian's overall economic growth but, most importantly, generates jobs (Diao et al., 2019). Of its 29 million people, approximately 70 % rural population of Ghana is predominantly employed in agriculture (World Bank, 2016). According to the Global Food Security Strategy (GFSS) (2018), agribusiness employs almost half Ghana's workforce. Ghana Labour Force Report (2015) shows that the agricultural sector employed 3.3 million individuals, or 36%, of the 9.3 million formally employed. The sector's contribution to employment generation covers several of the country's vulnerable groups. Firstly, because it is a primary sector, it has become the employer of last resort for most people living in rural Ghana, where it has the most significant labour hiring capacity, particularly for women and youth (Abimbola & Jegede, 2017). According to the Global Food Security Strategy (GFSS) (2018), it is a significant source of employment for nearly 6.5 million women. The agricultural sector is also vital because it is the source of jobs for the new labour force in Ghanaian each year (Plecher, 2020; World Bank, 2017). According to the GFSS (2018), it is a significant source of employment for the 300,000 to 350,000 first-hand workers that join the Ghanaian working population each year. Because it employs a substantial number of low-skilled workers and provides income for more than 70 % of the rural population, including many of the poorest families in the country, SSABs are regarded as the drivers of growth for the Ghanaian economy (Diao, Hazell, Kolavalli & Resnick, 2019).

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Another significant contribution of agriculture relates to the GDP. According to Plecher (2020), from 2010 to 2015, 35 % of Ghana's GDP comes from agriculture. The sector earns around 45 % of all foreign exchange profits (Plecher, 2020), contributing significantly to exports (Fukase & Will, 2018). The contribution of SSABs to the economy of Ghana cannot be overemphasised because Ghana's agriculture constitutes predominately of smallholder farmers at around 80 % (Ministry of Economy & Industry, 2020).

According to Diao, Hazell, Kolavalli and Resnick (2019), the contribution of SSABs is so obvious that every government in Ghana attempts to provide the necessary support to the sub-sector. The agricultural sector (MOFA, 2021) provides investors with a unique combination of benefits, which includes various agro-environmental areas suitable for the production of various raw materials, covering 14 million hectares of agricultural land; of which 6.7 million (MOFA, 2021) hectares are currently under cultivation. Furthermore, the Ghana Investment Promotion Centre (GIPC) has registered one agriculture project valued (at US$ 6,469,000) that would serve as FDI Inflows in Agriculture in 2020, demonstrating the importance of SSAB contributions (GSS, 2015).

Unfortunately, the performance of the agricultural sector has been declining, with poor performance highly evident among SSABs in Ghana (Gubbels, 2019; World Bank, 2017; Ghana Statistical Service, 2015). The average monthly income of agricultural enterprises has declined by 61.2 %, according to the Chamber of Agribusiness of Ghana (CAG), with SSABs reporting average monthly revenue shortfalls of as much as 77.4 %. This situation creates a worrying situation, which necessitates a systematic inquiry into the root causes to proffer informed solutions.

It has been argued that an SSAB’s performance can be inhibited by numerous challenges (Abimbola & Jegede, 2017). While all research mentioned above has contributed in various ways towards understanding SSAB’s performance problem, they cannot be taken as exhaustive due to the multifaceted nature of small business challenges (Abimbola & Jegede, 2017).

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A few studies have been conducted to understand the performance and difficulties of SSABs in Ghana. For example, Setsoafia, Aboah and Danso-Abbeam (2015) conducted a study focusing on the growth constraints of SSABs in Accra, Ghana, with most findings pointing to a lack of adequate financial resources. Ampadu-Ameyaw and Omari (2015) examined SSABs in Ghana, focusing on women's status, difficulties, and livelihood chances. According to the findings of this study, SSABs are primarily hampered in obtaining loans from financial institutions by a lack of government laws, a lack of knowledge, excessive interest rates, and a lack of collateral. The primary issue influencing SSABs, according to Farsi and Toghraee (2014), is how to stimulate processing through innovative means. Ntiamoah, Dongmei and Kwamega (2016) identify these challenges as financing gaps leading to low productivity, inadequate market access, limited smallholders' income-generating potential, and lack of essential services and information to preserve the firm moving in today's economy.

1.3 PROBLEM STATEMENT

Poor performance of SSABs in Ghana is a problem that requires systematic research to address. Small-scale agribusiness reported a 77.4% decline in monthly income due to high transaction costs, poor quality of goods, and low productivity (Wiebe et al., 2003; Kydd et al., 2004). The agricultural sector faces a lack of managerial expertise, information asymmetry, high transaction costs, and access to credit challenges (Marwala & Hurwitz, 2017; Hashim, 2015 & Adobor, 2020). Moreover, the SSAB sector in Ghana suffers from the unavailability of human capital resources (Rambe & Makhalemele, 2015; Abor & Quartey, 2010; Fatoki, 2011).

Information asymmetry among SSABs is a crucial challenge, leading to moral hazard and adverse selection (Marwala & Hurwitz, 2017) and also leading managers to make bad transaction decisions, negatively affecting performance (Micheni et al., 2020). SSAB owners and managers lack knowledge, collateral security, solid business plans, and financial deposits, which deter financial

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institutions from lending capital to facilitate their operations (Tendai & Ellen, 2018; Appiah et al., 2018). High transaction costs affect revenue growth (Musso & Weare, 2019). Availability of market information is viewed as a vital asset for SSABs since it allows them to position themselves more strongly in a competitive market (Byerlee et al., 2013), while managerial expertise, transactional cost, and access to credit are regarded as the main drivers of performance. These factors could lead to abysmal performances by SSABs and give rise to hunger, poverty, unemployment, and low productivity (Gaffeney et al., 2016; GSS, 2014), a challenge that would affect the lives of citizens in Ghana, especially in the rural communities like Nkoranza South District of Ghana.

The identified possible drivers of performance for SSABs in the research area include managerial expertise (Farsi & Toghraee, 2014); transaction costs (Dragilev, 2018; Foss, 2013; World Bank, 2014); information asymmetry (Farsi & Toghraee, 2014); and access to credit (Dragilev, 2018; World Bank, 2014; Foss, 2013)

1.4 AIM OF THE STUDY

Due to the above reasons, the research was conducted to understand the impact of managerial expertise, information asymmetry, transaction cost, and access to credit on the SSAB performance (as measured by sales and employment growth) in the Nkoranza South District of Ghana's Bono East Region.

1.5 OBJECTIVES OF THE STUDY

The following objectives were set to achieve the above aim.

1. To examine the impact of managerial expertise on SSAB sales and employment growth.
2. To explore the impact of information asymmetry on SSAB sales and employment growth

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3. To investigate the impact of transaction cost on SSAB sales and employment growth
4. To examine the impact of access to credit on SSAB sales and employment growth

1.6 RESEARCH HYPOTHESES

Eight hypotheses were tested, either accepted or rejected, based on the multiple linear regression model (Burns & Burns, 2008; Saunders et al., 2009).

1. H1a: Managerial expertise is positively related to the employment growth of SSABs.
1. H1b: Managerial expertise is positively related to the sales growth of SSABs.
2. H2a: Information asymmetry is negatively related to the employment growth of SSABs.
3. H2b: Information asymmetry is negatively related to the sales growth of SSABs.
4. H3a: Transaction cost is negatively related to the employment growth of SSABs.
5. H3b: Transaction cost is negatively related to the sales growth of SSABs.
6. H4a: Access to credit is positively related to the employment growth of SSABs.
7. H4b: Access to credit is positively related to the sales growth of SSABs.

1.7 SUMMARY OF THE RESEARCH METHODOLOGY

Consistent with the hypotheses testing, a positivist epistemology formed the philosophical basis of the research. This stance logically implied a deductive approach and applying quantitative research design and techniques to validate the hypothesised relationships among the variable in the conceptual framework (Bryman & Bell, 2015). In other words, this study employed deductive reasoning to establish connections between managerial expertise, information asymmetry,

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transaction cost, and access to credit drivers on SSAB sales and employment growth in the Nkoranza South District of Ghana.

A sample frame of 239 SSABs was compiled from various agricultural sectors in the Bono Region Nkoranza South District. These businesses include cassava processing, poultry production, cashew nut processing, agrochemical and equipment sellers, and corn processing.

Primary data were collected from one hundred and ninety-two (192) respondents using a self-administered structured questionnaire. Researchers Zikmund et al. (2013) argue that questionnaires are advantageous because they use highly objective and systematic questions, leaving little possibility for bias.

A stratified random sampling technique was used to segregate the respondents into various strata: cassava processing, poultry production; cashew nut processing; agro-chemical and equipment sellers; and corn processing. (Mohamed & Aisha, 2018).

Data were analysed using descriptive statistics and multiple linear regression tools and techniques embedded in the Statistical Package for Social Sciences (SPSS) version 26. Descriptive and multiple linear regression analysis was imperative, as it empowers the researcher to evaluate quantitative data appropriately by analysing the relationships among variables (Denscombe, 2014; Antonius, 2003).

1.8 ETHICAL CONSIDERATIONS

Respondents' protection and rights were thoroughly explained before the commencement of the data collection process. The respondents' consent was also sought before they were served with questionnaires. Confidentiality was assured throughout the entire research process. The respondents' personal information, such as names, phone numbers, and postal addresses, was not included in the questionnaire. No bodily or emotional harm was caused during the research.

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Almost all the respondents participated in the study at their place of work out of convenience. Questionnaires were designed such that respondents easily understood words. Participants were assured that all sensitive information would be protected with the greatest confidentiality. The Faculty of Management Sciences Ethics Committee at the Central University of Technology approved the research.

1.9 CHAPTER DEMARCATIONS

Chapter 1 introduces the study, where the problem background, problem statements, study goals, research questions and hypotheses are presented and discussed.

Chapter 2 focuses on the theoretical aspects of the study. The chapter consists of three main parts: a review of the theoretical and empirical literature, the underlying theoretical framework, and the conceptual framework.

In Chapter 3, the research methodology is presented and discussed in terms of the research philosophy, approach, design, methods, and data collection and analysis techniques. The various variables constructs are also presented and discussed. The chapter also contains a discussion of reliability and validity issues. Finally, the ethical implications of this research are discussed.

The fourth chapter is devoted to the presentation of the data that was analysed and the interpretation and discussion of the findings.

Finally, Chapter 5 brings this study to a close by highlighting the most critical research findings and their implications for future practice. It also explores policy implications, limitations, and suggestions for future research directions.

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1.10 CHAPTER SUMMARY

This chapter presented an overview of the study by detailing the background of the problem under investigation, the problem statement, the aim and objectives, the hypotheses tested, a summary of the research methodology, ethical concerns, and the chapter boundaries. The next chapter presents a review of the literature.

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CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter provided a synopsis of the study through a comprehensive discussion on the background of the problem under investigation, the problem statement, the aim and objectives, the hypotheses tested, and a summary of the research methodology. Building on the synopsis in Chapter 1, the following tasks are undertaken in this chapter (Chapter 2). The discussion begins with the conceptualisation of small-scale agribusiness. Following this, empirical studies relevant to the problem identified in Chapter 1 are reviewed. After that, the theoretical framework underpinning the research is discussed. The conceptual framework illustrating the problem under investigation is presented and discussed. Finally, hypotheses are developed guided by the literature review.

2.2 DEFINING SMALL-SCALE AGRIBUSINESS

Small-scale agribusinesses belong to the small business sector. Therefore, how small businesses are defined and their importance in the Ghanaian context is pertinent first.

2.2.1 Defining small business in the Ghanaian context

The official definition of a small business in Ghana is one with a capitalisation of less than GHC10,000.00 (US$3,500.00) and a workforce of nine or fewer (Masakure, Henson, and Cranfield 2009). Others have also operationally developed two definitions in Ghana: one by the Ghana Statistical Service and one by the National Board for Small-Scale Industries (NBSSI) (GSS). The NBSSI uses the fixed asset and employee count criteria to define SMEs. A small-scale enterprise employs up to 29 people, including micro-enterprises, and whose investment in equipment and machinery aside from land, buildings, and cars does

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not exceed the equivalent of $100,000. Businesses classified as medium- and large-scale are those with between 29 and 99 and more employees, respectively (Kayanula & Quartey, 2000; Mensah, 2004). The GSS, on the other hand, defines micro-enterprises as businesses with fewer than five employees and fixed assets worth less than $10,000, excluding land and buildings; small-scale businesses as businesses with fewer than five employees or fixed assets worth less than $100,000; and medium- and large-scale businesses as businesses with more than 100 employees, respectively (Kayanula & Quartey, 2000; Quartey, 2003).

Prosperous countries worldwide have recognised the vital role that SMMEs play in economic growth and development. Small, medium and macro enterprises are the backbone of any developing economy, which help to expand the economy by creating jobs, decreasing regional imbalances, promoting sustainable productivity expansion, and eradicating poverty (Gupta & Tripathi, 2020). According to Blankson, Cowan, and Darley (2017), rural micro and small enterprises engage in social networks, build relationships with clients and employees, and incorporate morality and religion into their economic activities to thrive in a cutthroat subsistence market.

2.2.2 The nature of Ghanaian SSABs

Having outlined what constitutes a small business in the Ghanaian context, it becomes easier to conceptualise SSABs since they form a segment of the small business sector. Generally, a small-scale agribusiness is an agricultural company that is privately owned, has a limited workforce, and generates comparatively little revenue (Momoh, Aturu-Aghedo & Bature, 2021).

Small-scale agribusiness is labour-intensive and vital in providing income stability, growth, and employment participation for most low-income workers. Micro and small agro-based firms offer the poor an opportunity to transcend poverty (Owusu-Antwi and Antwi, 2010; Ahiawodzi & Adade, 2012). These small businesses process agricultural products in smaller units, typically located in the rural areas of

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Ghana. These SSABs are either small holders or family farm businesses, with few resources and employing few people. The SSAB depends on indigenous technology farming, all terms frequently used interchangeably, regardless of their applicability (Heidhues & Bruntrup, 2003). The overall capital cost to start a small-scale agribusiness venture in Ghana is Gh5,638.60 (US$1,127.72), with an operating cost of Gh12,100 (US$2,400), according to Adam et al. (2019).

2.3 FACTORS AFFECTING AGRIBUSINESS PERFORMANCE IN GHANA

Agribusiness provides employment and a source of revenue for a higher percentage of people living in rural areas. Even though agribusiness is vital for economic growth, the sector faces challenges that affect its performance, including sales growth and employment generation. Below are some of these factors.

2.3.1 Impact of managerial expertise on small business performance

According to Aliyu (2015), organisational performance depends on managers' expertise. Forth and Bryson (2019) investigated the link between management practices and SME performance. The study revealed that small-scale businesses do not usually engage in formal management practices like those in larger production sectors. Nevertheless, those that do so are characterised by sales growth, productivity, and survival. Management practices and managerial expertise do not necessarily mean the same thing. However, this finding implies that formal management practices and, by implication, managerial expertise are essential for small business performance since sales growth, productivity, and survival are all about business performance. Exploring the impact of managerial expertise on small business sales and employment growth requires first understanding what constitutes managerial expertise.

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2.3.1.1 Managerial expertise

The Cambridge English Dictionary (2022) defines expertise as a high level of knowledge or skills relevant to a domain. Similarly, the Collins English Dictionary (2022) states that it is the “special skill or knowledge that is acquired by training, study, or practice”. So, an expert can be viewed as someone who has mastered all knowledge and skills necessary to perform in a given environment or role.

Of managerial expertise, several definitions have been examined in the course of this research to conceptualise it for this study. The following are some of them. Managerial expertise can be defined as a manager’s ability to apply their competencies, skills, and experiences to implement organisational approaches such as marketing, product establishment, observing and assessment, funding, and other associated responsibilities (Majid & Yasir, 2012). For Asah et al. (2015), it constitutes the ‘stock’ of a given manager’s talents, competencies, qualities, knowledge, and experience, as well as their capacity to apply such standards to product development, monitoring, marketing, and finance within the firm. Managerial expertise, therefore, seems to emphasise knowledge, experience, and competence, which should translate to a manager's ability or capacity to perform tasks associated with roles such as marketing, finance, and human resources management, to mention a few.

Having established the meaning of management expertise, the following section explores how the possession or otherwise of these skills impacts small business performance. The aim is to identify specific areas of managerial expertise for testing in the SSABs.

2.3.1.1 Managerial expertise and small business performance

According to Liridon and Mimoza (2017), managerial capabilities impact small business success, as measured by subjective assessments of economic growth indicators against market competitors.

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Ndinda and Gilau (2018) conducted an empirical study revealing a significant constructive association between financial literacy and the effective running of these businesses. The study showed that small business owners' high financial literacy abilities enabled them to budget, record transactions, and perform their day-to-day operations.

In addition, Fiberesima and Rani (2012) have found that most small-scale businesses are unsystematic in their strategic management exercises and that, as such, no attempt has been made to re-strategies operations. The study also reveals that strategic management was positively related to small-scale businesses achieving their competitive advantage. Inefficient management abilities, such as managing human resources, financial planning, programme administration, production control, and marketing management, according to Fouad (2013), lead to terrible productivity in small-scale manufacturing enterprises. According to the report, a shortage of qualified human resources reduces small-scale manufacturing businesses' contribution to employment growth.

Managerial expertise has been identified as a critical concern for Ghana's SSAB sector. Ghanaian SSABs, whose managers possess general management skills, have produced better performance (Custodio et al., 2017). According to Shaikh et al. (2017), around 80% of SSABs underperformed during their first three years of operation, resulting primarily from a lack of managerial skills, such as marketing, innovative capabilities, and strategic planning. Unsurprisingly, the same study revealed that most SSABs could not develop sustainable markets, hampering their performance levels. According to another study by Shaikh et al. (2017), SSABs with managerial expertise make better use of capital by incurring fewer expenditures and encouraging revenue performance. The problem for Ghanaian SSABs is that, due to the dearth of managers with concrete management competence, such managers remain in high demand; therefore, they are expensive to employ, making it difficult for SSABs with limited resources to hire (Huang, 2014). Cherugong (2015) states that high-performing SSABs had three permanent employees with financial skills. These employees also have five years

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of working experience, which helps the firm generate 10% annual growth. Furthermore, Asha (2019) finds that an entrepreneur's adaption of financial literacy to SME performance is minimal and that using accounting records has no impact on their success rate.

2.3.2 Information asymmetry and small business performance

The second issue is information asymmetry, which occurs when one side of a transaction possesses more material knowledge than the other (Saxton & Anker, 2013). Garmaise and Natividad (2010) proposed that customers and sellers should have access to the same product and service information. However, sellers sometimes have secret information that buyers do not have, which gives them an advantage in making good selections, even while it is not rare for buyers to have greater information than sellers (Garmaise & Natividad, 2010). According to Kuniyoshi and Tsuruta (2018), information asymmetry brings about a great deal of inefficiency between borrowers and lenders, which makes credit unavailable for small businesses, and affects their sales growth rates.

O'Connor and Kelly (2017) evaluated the effectiveness of using information in overcoming barriers to small and medium enterprises operating in agro-food processing sectors. The finding reveals precise information can improve SSAB sales and employment growth. Furthermore, until efficient knowledge management methods are applied, big data and knowledge remain mutually exclusive. Song et al. (2020) investigate the connection between SSAB funding decisions, macro locations, and information asymmetry among SSAB funding decisions. The results showed that information asymmetry affects SSAB funding decisions and sales and employment growth opportunities.

Asymmetric information encourages enterprises to accelerate their investment. Research shows that enterprises with solid cash flow can credibly signal their type to external insurers by using investment timing and delivering a guaranteed compensation package (Wang et al., 2019). Additionally, information asymmetry

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has contributed to SSAB's distrust of financial institutions, which has impeded factoring adaption and harmed most of SSAB's sales and employment growth (Naboth, 2017).

According to Marwala and Hurwitz (2017), information asymmetry is a serious issue because it can lead to moral hazard where business owners with inadequate data risk making poor business transaction decisions. Hoppe and Schitz (2013) argue that equity investors and lenders are buyers. In contrast, company owners and management are sellers. That information asymmetry emerges when investors and lenders do not have all of the information they need to make informed investment decisions. Emezie (2017) found that small business owners did not believe in record-keeping because they did not recognise its importance in business operations. Liang et al. (2017) claim that banks' cost efficiency falls when lending to SMEs increases due to information asymmetry. However, increasing the proportion of loan guarantees can help them save money. Fosu et al. (2016) conducted an empirical study revealing that information asymmetry hurt organisational productivity due to firm leverage rise. According to the survey, leverage harms business value, where the marginal effect of influence is lower for organisations with asymmetric information.

According to Micheni et al. (2020), trust in business experience and household experience harms profit inefficiency. Furthermore, the association involving information asymmetry and corporate value is more significant in the post-crisis period than in the pre-crisis period. Finally, for firms with little development potential, information asymmetry has a reduced impact on company value.

2.3.3 Transaction costs and small business performance

According to Pingali et al. (2005), small-scale farmers, mainly in emerging markets, particularly in Ghana, find it challenging to partake in the market arising from various constraints, a majority of which can be accounted for by hidden costs that prevent access to input and output markets. According to Delgado (1999) and

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Holloway et al. (2000), smallholders have insufficient resources and transaction costs that express access hurdles to market participation. The price of receiving information is a crucial transaction cost for farmers (Shepherd, 1997).

Tate, Ellram and Dooley (2014) claim that high transaction costs directly impact small-scale business financing. Operational costs are expenses incurred throughout a transaction by an individual organisation to buy or sell a product or service (Grover & Malhotra, 2003). In monetary terms, these costs comprise commissions for brokers, price spreads, government expenditures, transportation expenditures, service charges, research costs and other costs depending on the transaction type (Grover & Malhotra, 2003). Transaction costs, such as outsourcing accounting services that require reporting on financial positions and advising on tax purposes, do not impact organisational profitability (Agburu et al., 2017). According to Musso and Weare (2019), increased incentive intensity may improve the organisation's performance, but at the cost of higher governance expenditures, which will impact revenue growth.

The fundamental nature of small-scale businesses prevents them from obtaining funds from a financial house due to the lack of credit management capabilities (Ndinda & Gilau, 2018). Moreover, the degree of credit management abilities among small-scale enterprises is inadequate, requiring owners to seek professional guidance before financing (Ndinda & Gilau, 2018). Additionally, high transaction costs such as transportation and marketing costs deter the entry of small farmers into the market (Okoye et al., 2016), making it highly competitive for smallholder farmers.

Gichuki, Njeru, and Tirimba (2014), and Evans, Josephine, and Yeboah (2015) stated that most businesses need to borrow money to expand their operations. However, borrowing money comes with a significant transaction cost, which is unsustainable for small businesses. In addition, transaction costs are exceptionally high in underdeveloped nations like Ghana, where finance houses are hesitant to provide funds due to their risk and portfolios. A study on the transaction expenses experienced by small businesses was undertaken by Chuluunbat et al. (2017),

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where it was revealed that 20% of organisations spend 10% of their profit on non-market transaction costs, making it difficult for small businesses to improve. Lastly, costs such as negotiation charges, interest rates, legal charges, and inflation are costs that prevent small businesses from accessing loans.

2.3.4 Access to credit

One of the main reasons most small-scale firms in Ghana fail within a few months is finance-related (Dragilev, 2018). For Sadiq (2016), small-scale business collapse is due to owners' lack of control and planning for current debt and cash equivalents. Ironically, at the same time, Ampadu and Omari (2015) discovered weak financial abilities as a severe impediment to agribusiness performance.

Another critical enabler of agribusiness is financial services (Christy et al.,2009). Yet financial institutions are often reluctant to do business with agribusinesses. There are various reasons why financial institutions have regularly reduced lending exposure to agriculture and its supply chain, according to the World Bank (2014). Foss (2013), for example, identified the following reasons: (a) the ever-decreasing profit margins and raising cash to increase growth and sustain family operations have become increasingly problematic in recent years; (b) farm and farmer drawbacks due to geography; (c) systematic risk factors and their economic consequences across the entire value chain of agribusiness industries; and (d) a lack of infrastructure for tracking, identifying, and monitoring potential future agribusiness financial transactions in rural areas.

Small-scale agribusinesses have found it challenging to obtain a quick and flexible source of finance, despite their essential roles in economic development and poverty reduction. According to Abubakari, Abdulai, and Adam (2022), operating an SSAB in rural areas necessitates finance, which typically comes from family and friends. However, funding from these sources did not impact the SSAB's performance. Due to inadequate collateral, SSABs only have access to small amounts to invest in pesticides and fertilizer. Still, they cannot access enough

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capital to acquire heavy machineries like tractors and agricultural machinery (Hussain & Thapa, 2012).

There are various reasons why agricultural financial intermediaries have traditionally had a limited lending commitment to agriculture and its distribution network (World Bank, 2014). These include systematic risk factors, spillover effects throughout the industry's entire value chain, and an absence of financial facilities for tracking prospective agribusiness transaction records in rural areas. Researcher Chimucheka (2013) reveal the lack of collaterals, weak business planning, a lack of education, and a lack of financial deposits to be significant barriers to small business owners obtaining financing. Appiah et al. (2018) state that SMEs with insufficient capital face high competition.

According to Arthur (2015) and Babajide (2017), SSABs have difficulty obtaining credit, especially when matching the requirements of conventional financing houses, notwithstanding the sector's contrition to economic development. Ndinda and Gilau (2018) again emphasise that, due to the inherent nature of SSAB, they cannot obtain loans from financial institutions.

Various researchers have investigated challenges that limit the growth of small-scale agribusinesses. These challenges or impediments are stumbling blocks that stand in the way of the company's growth (Nkwabi, 2019). Often, these challenges limit company performance and result in company decline after a certain period. In Ghana, Insufficient agricultural and manufacturing regulations, innovative shortcomings, failure to access global markets, poor facilities, quality control issues, and limited economic capacities, according to Ampadu-Ameyaw & Omari (2015), hamper the growth of the agro-processing sector.

2.3.5 Climatic factors

Climate change, particularly rising temperatures and carbon dioxide levels in the atmosphere, poses a severe threat to the ecosystem and all living things.

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According to the Climate Change and Food and Agribusiness (CCFA, 2022) sector, new technology and an uncertain market will increase agribusiness costs, thereby reducing profits. Agribusiness, therefore, requires a transformation to minimise and develop robust mechanisms to impact climate change.

According to Armah et al. (2010), Ghana, Guinea and Sudan savannah agroecological areas are exposed to climate change, desertification, and related concerns such as food insecurity. Farmers' perceptions and analyses of temperature variations, extension officers, funds and land tenure influence their awareness of climate change (Fosu et al., 2012). Additionally, these farmers lack the necessary information on the adaptation of policies that help determine the agricultural development temperature zones.

Asumadu-Sarkodie and Owusu (2016) investigated the unpremeditated link between carbon dioxide (CO2) production and agribusiness productivity. CO2 emissions impact agricultural productivity, where global temperature transformation reduces produce production by 13.4% for palm oil production and up to 3.5% for rice and soybean production (Ray et al.,2019). The results of the empirical study demonstrated that the variables analysed have a long-run equilibrium connection. Furthermore, Agrimonti, Lauro, and Giovanna (2020) discovered that technology adoption for a sustainable farm system proves to be a complex and dynamic issue due to unfavourable trends in environmental impacts and climate change, both of which have adverse effects on crop quality.

2.3.6 Lack of institutional support

Despite the critical role of SSABs in the country's socioeconomic development and poverty reduction, the SSAB lacks the necessary legislative and established location to encourage the establishment of a reasonable and justifiable economy. Researchers Poku et al. (2018) found that there exist vast prospects for SSAB in biomass production from cassava in Ghana but note that there are coordinating problems between the farmer, processors, and consumers. Very few business sector projects are aimed at developing novel cassava-based goods (Poku et al.,

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2018). Cassava cultivation, processing, and consumption have all been hampered. As a result, consumers rely on substitutes from other countries, and failed administration attempts, and the lack of policy have contributed to cassava's untapped industrial potential in Ghana (Poku et al., 2018). According to Abdul and Matsui (2020), most smallholder rice farmers in Ghana's Bawku Zone are exposed to various socio-economic difficulties, including a lack of assets and insufficient institutional and governmental support. The agricultural sector is so constraining that they lack technology support (Manzoor, 2021), from the state which could impacts the small scale business employment (Anderson & Eshima ,2013). A rise of small agribusinesses in emerging nation especially Ghana demands for large resources to perform but Wang (2016) stated resources are only few. These obstacles jeopardised their ability to adjust to future climate change consequences that are more severe.

2.4 SUSTAINABLE DEVELOPMENT GOALS AND AGRICULTURE

Ghana has set a goal of achieving Sustainable Development by 2030, with agriculture as one of the panaceas for poverty and unemployment reduction. In September 2015, the United Nations established the Sustainable Development Goals (SDGs) before the above plan. The SDGs aim to "expand on the millennium development goals and fulfil what they didn't accomplish" (United Nations, 2015), aiming to eradicate poverty and hunger in all forms and dimensions. Ending hunger, ensuring food security and improving nutrition, and nutrition security require a sustainable development goal to provide a contemporary framework for improving food security and nutrition. However, large amounts of investment are necessary to boost agricultural activities and unlock this potential. Agriculture, which employs 60% of the labour force, particularly in rural areas, has the potential to revolutionise the economy (Diao, Hazell, Kolavalli & Resnick, 2019).

On the other hand, climate change jeopardises this goal, leaving rural households exposed to poverty traps and farmers' income shocks caused by uncertainty.

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Critical projects such as the Innovation Insurance Project for Adaptation for Climate Change and the Ghana Agricultural Insurance Pool help reduce the influence of temperature changes on agricultural productivity (Opong et al., 2016). As one of the sustainable agricultural practices, afforestation contributes to overall food security by guaranteeing good farmlands (Broegaard et al., 2017).

2.5 AGRIBUSINESS CONTRIBUTION TO GHANA'S ECONOMY

Agribusiness is essential for Ghana's economy in various ways. This section looks at some of the significant contributions.

2.5.1 The contribution of agribusiness to gross domestic product growth

Until oil production came into the picture, Ghana's industrial companies relied on agricultural input while the country's economy depended on the same. Agriculture contributes significantly, where more than a quarter of the GDP and foreign exchange comes from agricultural products such as cocoa (MOFA, 2021). Ghana's GDP from agriculture climbed to Ghc 9317.44 million in the fourth quarter of 2019 from Ghc7638.80 in the third quarter, according to trade economics and Ghana Statistical Services (GSS) (2020). In addition, according to GSS (2020), the agriculture industry grew by 4.6 % in 2019, compared to a change of 4.8% in 2018. Its share of GDP dropped from 19.7% in 2018 to 18.5% in 2019. According to the GSS (2017), the agricultural industry employs around 45 % of people and contributes approximately 14 % to the country's GDP.

2.5.2 The contribution of agribusiness to employment growth

Agriculture has always been a sector that employs the most significant number of workers. As stated in the World Bank Report, the industry absorbed about 300,000 to 350000 in the Ghanaian labour force, where the agricultural sector is a significant source of employment (World Bank, 2017). Extractive sectors are highly capital-demanding and employ just a small percentage age of unskilled

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employees, while small-scale agribusiness is the economy's fastest-expanding sector. On the other hand, agriculture engages a significant number of low-skilled workers and more than 70% of the rural population, including several poorest families in the country. According to the World Bank (2016a), in the medium term, the sector will keep contributing to net employment creation, and growing agricultural output will be crucial to poverty reduction. In 2010, the Ghanaian government, with the help of the World Bank, launched GSOP to use surplus labour in rural communities by providing job opportunities for the youth and the most disadvantaged families. One of the projects, namely Labour-Intensive Public Work (LIPW), recruited adolescents to build dams for dry seasoning farming and mango plantation development. Cirillo (2016) has reported that 30,042 and 7,814 people benefitted from this in 2014 and 2015. Furthermore, according to GOG (2018), the state and private plantation developers employed 60,000 and 2,590 youth under the Youth in Afforestation Programme.

2.5.3 The contribution of agribusiness to export

Agriculture's success has been critical to non-oil manufacturing's competitiveness (World Bank, 2009; Breisinger, 2008). Agricultural economic growth is vital for various reasons, including economic growth, job creation (Fukase, 2013), and providing the foreign exchange needed to acquire items that are not readily produced locally. World agricultural exports expanded from US$ 83.3 billion to US$ 1,532 billion between 1988 and 2014, whereas SSAB's exportation rose from US 2.7 billion to US$ 44.3 billion. Siaw, Pickson, and Dunya (2018), examining the connection between agricultural export and commercial development, reveal that cocoa significantly impacts Ghanaian economic transformation. This finding is confirmed by Odike and Jerome (2020), who stated that agricultural products' exportation positively impacts commercial transformation. The Ghana Cocoa Board (2017) reported that cocoa exports earn around US$2 billion in foreign exchange yearly, accounting for roughly 57 % of total agricultural exports, and are a significant source of government revenue (accounting for about 30 % of all export revenue), bolstering GDP.

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2.6 AGRIBUSINESS AND POVERTY REDUCTION

Considering the increasing number of people living in poverty and hunger, a long-standing connection exists between agricultural development, job creation, and poverty (FAO, 2017). Poverty is not merely a Ghanaian concern but also a global one that should be appropriately addressed. During the year 2016, almost 815 million people globally suffered from severe hunger as the result of poverty, as stated by Food and Agricultural Organization (2017) which noted that this is the first increase since the period between 2006 and 2008, when during this time, food prices rose significantly, to approximately 777 million people who are malnourished. Agriculture provides food and employment, but the sector remains unattractive to those in the Bono East regions. In particular, the youth are affected due to several factors, namely low returns on investment and time spent, land access, and a limited amount of innovative infrastructure to help the agribusiness boost productivity (Collinson et al., 2016).

Globally, progress has been made towards ending food insecurity and poverty. According to the Food and Agricultural Organization (FAO) (2017), around 1.3 billion people are involved in agribusiness around the world, 97% of which live in developing nations. Unfortunately, FAO (2017) noted that only 30% to 35% of agribusiness owners generate income from their operations. Agriculture holds a great deal of promise in helping unemployed people find jobs and reducing poverty among rural farmers because when people are employed, they have a source of income and can care for themselves and their dependents (FAO, 2017; Osabohien et al.,2018). Furthermore, agriculture is a critical determinant in the drive to eradicate poverty at all levels and achieve long-term food security (FAO, 2017; Osabohien et al.,2018). From a Ghanaian perspective, the Ministry of Food and Agriculture (MOFA) (2021) funded District Assemblies with US$ 2.1 million to reduce poverty in the rural areas of Ghana.

Additionally, Ghana's fishery sector contributes substantially to national economic development by employing 2.6 million workers, which represent 10% of the country’s population, providing sustainability, and assisting in poverty reduction.

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Ecotourism is another agribusiness sectorial intervention that significantly contributes to poverty reduction through employment, income generation, and entrepreneurial activities (Lonn et al., 2018; Sharma et al., 2018). In addition, the government of Ghana also implemented the Planting for Food and Jobs initiative, aiming to modernise the economy's agrarian division to improve food security, create employment, and reduce poverty (MOFA, 2021).

Despite agricultural interventions, approximately two billion people are employed in agriculture (Gaffney et al., 2016), with an increasing number of women leaving impoverished rural areas for urban jobs (FAO, 2017). Between 1990 and 2016, the global proportion of undernourished persons fell from 18.6 % to 11 %, implying that 214 million people saw their diets improve (FAO, 2017a). According to USDA Economic Research Service projections, this percentage will begin to deteriorate in the next ten years, with only 6% of the global population being undernourished (Rosen et al., 2016).

2.7 TOWARDS A SUSTAINABLE AGRIBUSINESS IN GHANA

Sustainable practices are required to boost agribusiness within the sub-region, where there is a need to: improve crops and agroforestry; pesticides, loosening of soil; use organic fertilisers; and build soil and water preservation structures (Manda et al., 2015; Teklewold et al., 2013).

2.7.1 Practicing agroforestry in agriculture

Growing trees or shrubs alongside crops is known as agroforestry to make land usage more diverse, ecologically sound, and long-term. According to the Organic Research Centre (2010), agroforestry has several advantages, ranging from production to environmental and economic benefits. According to Jose (2009), the environments benefit from several efforts: biodiversity conservation, water quality, soil improvement, and biodiversity preservation. Agroforestry impacts food security

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and climate change, where it is crucial to protect Africa's rural landscape's environmental resources (Mbow et al., 2013).

2.7.2 The use of pesticides/ insecticides in agriculture

Insecticides, as well as pesticides, are manufactured compounds that are used to control pests. They are utilised to control plant and animal pests and protect farm produce and products (Sitaramaraju et al., 2014). Pesticide production and use in agricultural cultivation have both increased steadily over time. According to Sitaramaraju et al. (2014) and Sande et al. (2011), pesticides reduce pests, resulting in higher yields, despite their detrimental impact on water contamination and the effects this has on human health and organisms found in the soil. As a result, proper use of appropriate pesticides is necessary to offset these unfavourable effects and achieve more significant benefits.

2.7.3 Soil loosening

Soil loosening involves the physically breaking of soil, which is caused by compaction. When soil particles are packed so closely together that opening space is reduced, soil structure develops. Increased mechanised farming, intensive agriculture, low organic fertiliser use, high inorganic fertiliser use, and continual ploughing are all contributing factors. Soil compaction is affected by crop output, root expansion, seed development, and water infiltration (Amanullah et al., 2010). As a result, crop production depends on minimising soil compaction by thorough tillage. According to Mohanty et al. (2015), subsoiling should be done once a year to keep the soil productive.

2.8 AGRIBUSINESS PERFORMANCE IN GHANA

Every business's goal is to increase revenue and profit margins, which necessitates sustainability (Cross & Appiah, 2010; Wales, Guta & Mousa, 2013), defined by the firm's ability to innovate, produce quality products, and procedural

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improvement. According to Kwamega and Abrokwah (2018), the financial and internal procedures linking supply chain management practices and agricultural enterprises modulate agricultural business profitability. Theo et al. (2017) also indicate that the correlation between agribusiness performance and strategic organisational attributes, market orientation and restructuring cooperative performance does not appear significant. However, the significance of agribusiness cooperative societies impacts the indigenous economy. According to Fellipe, Sao, and Wagner (2017), diversification strategies have no apparent effect on financial farming-supportive products. Still, they remain a tool for organisational endurance due to the multifaceted nature of cooperative production management. According to Nina, Mathias, and Ludwig (2012), agribusinesses have established a comprehensive concept of sustainability management and perceive these as social expectations. Thomas et al. (2017) discovered that agribusiness entrepreneurs who value expertise and training would grow sales.

2.8.1 Measuring agribusiness performance

Measuring organisational performance is a procedure that entails the creation of indicators that may be consistently tracked to detect progress toward a predetermined goal. It is critical for a business to create performance indicators to assess results. It is also vital to understand how to choose what to measure, which indicators are most relevant, and which grounds will be utilised for this measurement (Bajan & Mrowczynska, 2020; Kim & Geoff, 2010).

Business performance indicators can be economic or non-economic. The traditional indicators have been economic, but since the advent of corporate governance issues - non-economic indicators have become important. Saunders, Kaye-Blake, Hayes, and Shadbolt (2007) provide a list of possible generic performance indicators. Afterwards, Saunders, Zellman, and Kaye-Blake (2007) tested their applicability in the agricultural setting. The performance indicators tested were grouped under eight categories: structure of the firm, business strategy, customer focus, quality, employee relations, innovation, socio-

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environmental and economic performance. Their finding is that caution needs to be applied when applying conventional performance indicators to the agricultural sector.

According to Udimal, Anyimba and Sarpong (2017) and Magableh et al. (2011), employment generation is one critical factor to consider when determining agribusiness performance. The argument is plausible because rural areas where these businesses are located are the most hit by unemployment.

The capability of small-scale agribusiness to run operations effectively depends on sales growth and, thus, the cash flows they provide. Sales growth is considered one essential measuring tool for small-scale agribusiness performance, where the business's survival depends on cash. According to Gaur and Kesavan (2015), a company’s revenue increases with its turnover rate, but its growth rate depends on its size. Sales growth is employed to measure SSAB performance, apart from employment. The researcher captured sales growth from five years of SSABs (2016-2020).

2.8.1.3 other performance measures

Customer satisfaction is a performance metric that small business managers use to re-plan their strategies. It is said to be critical for a business's success in today's competitive market (Haverila & Fehr, 2016) and is viewed as a primary direction for most businesses. According to Belas and Gabcova (2016), customer happiness has a beneficial impact on customer loyalty. Satisfied customers have long-term relationships with businesses, disseminate great comments, make repeat purchases, and are more willing to tolerate price rises. Customer satisfaction, for example, is linked to an organisation's capacity to establish and follow a process that ensures consistent and timely delivery of high-quality goods and services (Dongmo & Onojaefe, 2013).

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Secondly, small business performance can also be determined by the return on invested capital, which is the driver of performance for the smallest business. Investment is a tactical decision that is an element of the company's overall strategy. According to Zamfir, Manea, and Ionescu (2016), return on investment can be used to quantify the profitability of an investment after it has been completed. In the analysis of investment projects, the return-on-investment metric can be used.

Additionally, inventory turnover is a financial ratio that indicates how many times a company's inventory has been sold and replaced in a given period. Calculating inventory turnover can help businesses make better pricing, production, advertising, and upgrading existing inventory policies, and it can also be a good indicator of a company's financial viability. Inventory has been a commonly utilised measure of manufacturing processes (Kwak, 2019). In most divisions of the manufacturing enterprise, the top 10% of companies had higher inventory turnover ratios than the lowest 10%, according to Kwak's (2019) findings.

Because social and environmental activities are crucial and contemporary performance measures in business, Mariyono (2019) argues that small agribusinesses, too, should embrace them. Benarl et al. (2017) add that social responsibility mediates agribusiness performance and must be used as a performance indicator. According to Jankelova et al. (2020), the effectiveness of employee motivation and job satisfaction of employees contribute.

The process of satisfying the requirements, effectiveness, and efficiency of actions that lead to organisational performance is known as performance measurement. Small-scale agribusiness competitiveness is determined by how much businesses manage their performances, leading to increased productivity. One of SSAB's performance measuring metrics is sales growth, which indicates managerial performance, shareholder happiness, business sustainability, and investment appeal (Bekmezci, 2015).

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2.9 BUSINESS, OWNER CHARACTERISTICS AND PERFORMANCE

The study adopted three control variables to drive the dependent and independent variables of SSAB performance relationships. Business technology improves performance and helps develop rural enterprises to access the the international market in this competitive era (Samwel & Daoping, 2019). Similarly, the age of operations by business help to improve their performance (Rahaman et al., 2021).

Finally, the study uses education to check the knowledge level of managerial skills of SSAB managers. According to Bolisani & Bratianu (2017), knowledge sharing among employees effectively communicates and disseminates strategy. It is vital to notice how these characteristics are used in the model of the study.

2.9.1 The impact of business technology on the performance of SSABs

It has been argued that most SSABs depend on technology, as it improves their performance, drives rural development, and enables SSABs to access and operate in competitive international markets (Samwel & Daoping, 2019). Empirically, Mithas, Tafti, Bardhan and Goh (2012) argue that technology positively affects profitability. Technology implementation in enterprises has a more significant influence on their operations, especially in smart manufacturing projects. According to Gajdzik and Wolnaiak (2022), the implementation of technology in the industry has positive effects, such as a reduction of operation cost, speed of production, higher productivity, staff reduction, improved product quality, and a high level of customisation. According to Mohammed et al. (2019), technology is a key to sustainable growth and business performance, where adaptation is difficult to achieve since most businesses do not have the requisite resources to support implementation. Business technology was measured according to three categories: indigenous, foreign, and hybrid.

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2.9.2 The role of business age in the performance of SAABs

Cooper et al. (1994) empirical evidence show that current business strategies rely on business age. The number of years that a small-scale agribusiness operates significantly affects performance. According to Rahaman et al. (2021), control variable business age impacts small-scale business performance. Additionally, businesses in higher-performance age groups have a superior capacity to exploit external information and resources, boosting business performance (Yoo & Young, 2018).

2.9.3 Educational level of SSAB managers and business performance

The education of business owners, employees, and other skilled and unskilled workers significantly influence company performance. According to Newman et al. (2014), managers with knowledge and skills in accounting, marketing and numeracy greatly impacted their firm's operations more than those without it. Masar and Brezina (2019) note that educated managers gain better business competitiveness and efficiency in production processes. Similarly, evidence from Saidu (2019) and Kokeno and Muturi (2016) indicates that chief executive officers with a good education significantly affect their business performance. When examining the educational background of SSAB managers, owner-managers could influence SSAB performance, where manager level of education was measured across six groups: no formal education, primary education, secondary education, undergraduate degree, post-graduate degree, and other.

2.10 THE THEORETICAL FRAMEWORK

The theoretical framework for this study is the Resource-Based View (RBV) of the firm, which is based on the argument that a firm's performance is determined by the resources it has at its disposal (Barney, 1991).

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2.10.1 The resource-based view theory and SSAB performance

Resource-Based View Theory (RBVT) has evolved as an example of theoretical approaches utilised to clarify continuity in terms of disparities in inter-company effectiveness in strategic management research (Barney & Arikan, 2001; Lampel & Baum, 2010). According to Peteraf and Barney (2003), RBVT investigates differences in business performance based on their resources. Researchers Hoopes, Madsen, and Walker (2003) further explain that organisations can preserve a distinctive and lasting position in a competitive environment by concentrating on effectiveness rather than conspiracy, market power, or tactical action (Peteraf and Barney, 2003). A firm gains competitive advantages through its internal capabilities, which must be Valuable, Rare, Inimitable and Non-Substitutable (VRIN) to achieve a competitive advantage (Barney, 1991; Makadok, 2001). Resources may be considered to be everything that is a source of power, whether tangible or intangible assets, owned or managed, and that can assist the organisation in bettering and achieving its vision, strategic goals, and missions (Wernerfelt, 1984; Caves, 1980; Porter, 1981). According to Wernerfelt (1984), these resources may include brand names, personnel knowledge, abilities and expertise, technology and machinery, financing, and the efficient procedures that firms rely on to carry out their operations.

By focusing on competing firms when applying RBV to SSAB drivers of performance, the accomplishment of sustained competitive advantage is evaluated in a broad, fundamental sense. Makadok (2001) notes that relational, informational, human, legal, and financial resources are the most critical resources that ought to match these characteristics. As a result, the competitive advantages of an SSAB include ensuring sustainability and fostering growth (Lender, 2007).

According to Barney (1991), when a company has and continuously exploits resources and capabilities that fulfil the VRIN requirements, it can gain a competitive advantage, as well as above-average performance. As a result, SSAB performance would be competitive if drivers were delivered effectively and met the VRIN framework. RBV theory can be utilised in this situation to explain how SSAB

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strategic resources enable start-ups to achieve a competitive edge and superior performance and what resource-based factors influence SSAB's success.

The resource-based theory is straightforward and has direct face validity, so its core principles are easy to teach and understand, but critics point out its numerous flaws. To begin with, Rumelt (1991) and Barney (2001) criticise the theory for failing to consider linking resources as they are created and developed. Second, the theory lacks consideration of managerial implications (Priem and Butler, 2001). Managers are advised to acquire VRIN resources but cannot apply those skills because it is assumed they have total control over the companies' resources and can forecast resource value (Conner, 2002; Miller, 2003). Third, although resources and capabilities have various definitions, they are all viewed as the same resources, making them unchanging. They don't have the foresight to determine how these resources would be used in various operations domains (Kraaijenbrink, Spender & Groen, 2010). Other critics have claimed that the theory ignores context or organisational situation, claiming that how firms acquire and deploy resources cannot be understood as separate from business (Oliver, 1997; Priem & Butler, 2001). Because many SSABs lack capital, it becomes a significant source of competitive advantage.

Furthermore, the managerial skills needed to achieve successful capital generation and utilisation decisions become a competitive advantage. Information, corporate characteristics, and processes all play a role in establishing whether or not a company is strategic. This theory differs from transaction cost economics in that it stresses internal resources above expenses, which is required since, according to Bandi, strategic management ought to be concerned with establishing the lowest possible costs before each transaction (Bandi, 2012).

According to Soltes and Ulman (2015), it is crucial to support SSAB with financial and informational resources and managerial expertise for them to reduce transaction costs and be competitive. All financial and in-kind help that enterprises can use is referred to as financial resources. Barney (2010) defines organisational resources as capabilities connected with formal and informal planning, managing,

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and coordinating as well as systems, routines, and connections inherent in the firm. Similarly, it has been stated that SSAB managers' access to financial resources allows them to take advantage of economic possibilities, allowing the organisation, community, and society to profit (Alonso & Austin, 2018). SSABs must pay attention to programmes such as business development skills that will equip managers with varied management talents to run businesses while they garner managerial expertise successfully. As a result, it is proposed that SSABs focus on providing skills such as negotiation, decision-making, communication, and team-building skills that directly impact SSAB improvement. Nevertheless, Wong and Karia (2010) claim that competitive advantage in organisations is gained by combining physical, human, information, knowledge, and relational resources in various ways to generate unique and firm-specific capabilities.

According to Lollar et al. (2010), for SSAB to maintain certain competitiveness, there is a need to provide SSAB with the correct information. Such information could originate through advanced technologies that could help coordinate all operational activities to reduce costs and establish a good working relationship among business partners.

Finally, when SSAB utilises e-commerce (Pickernell et al., 2013), it remains competitive in its services at a lower cost. And this contributes to the expansion of SSAB (Ghobakhloo, 2011) in emerging nations due to its capacity to convey various benefits, including cost savings, more access to global markets, and increased operational efficiency.

2.11 THE CONCEPTUAL FRAMEWORK

The thesis statement for the conceptual framework is that managerial expertise, information asymmetry, transaction cost, and credit access impact small-scale agribusiness. Figure 2.1 illustrates the thesis statement. The research engages four (4) drivers to examine SSAB performance. As noted in the literature review, the drivers are managerial expertise, information asymmetry, transaction, and

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access to credit. To recap: (i) managerial expertise relates to the ability of the entrepreneur to use experiences with great skills to implement strategic organisational decisions; (ii) information asymmetry relates to the entrepreneur's knowledge about the market, especially about customers and suppliers; (iii) transaction cost encompasses costs including those associated with financing, transportation and other inherent costs that may escalate the capacity of SSABs to optimise performance; and (iv) access to credit in the form of microcredit from finance institutions.

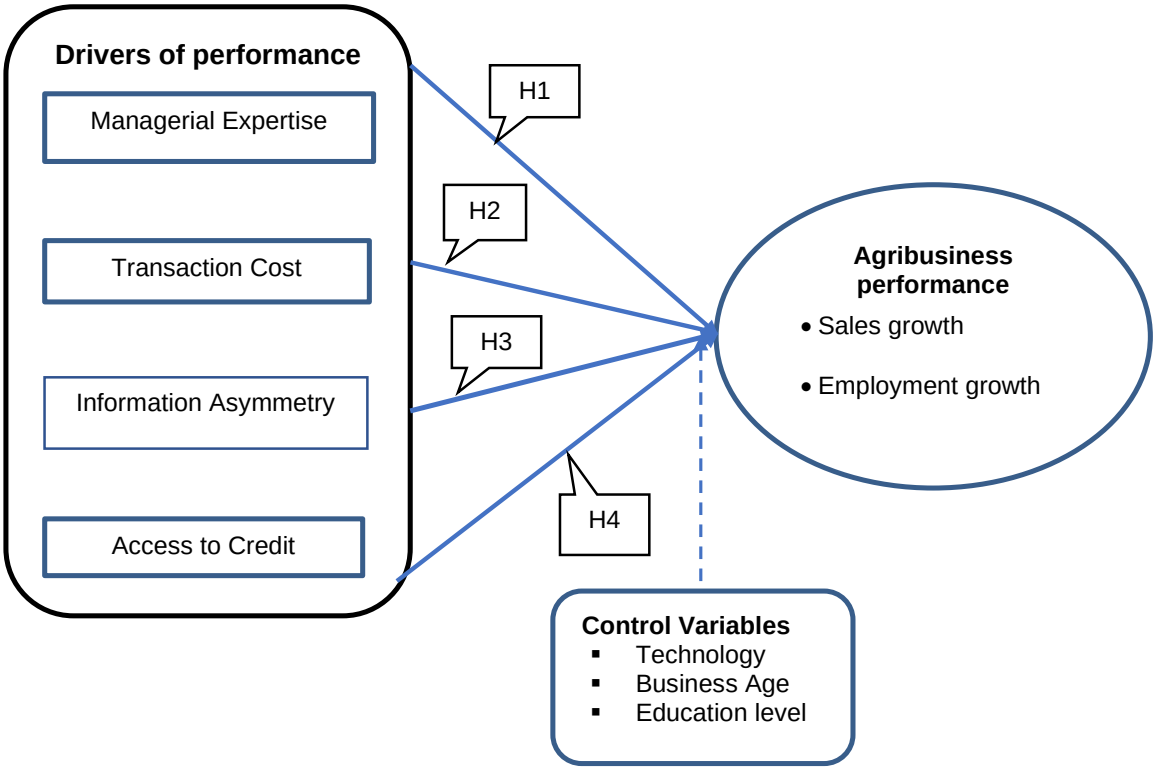

Figure 2.1: The hypothesised model of the drivers of SSAB performance

2.12 CHAPTER SUMMARY

This second chapter examined the literature on the small-scale agribusiness idea. The chapter explored the complexities of SSABs and their significance in Ghana's economic development. Small-scale agriculture was discussed in the chapter, and it was discovered that SSABs lacked experienced management and the requisite information to work with, paid high transaction costs, and struggled to secure

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access to financing as a vital source of support. The importance of the United Nations Sustainable Growth Goals and their roles in agricultural development in Ghana were discussed in this chapter. Agriculture and its role in economic growth, as well as the role of the agribusiness sector in Ghana's economic development, was also highlighted. The chapter also discussed agriculture, its significance in economic development, and the function of the agribusiness sector in Ghana's economic development. SSAB is viewed as one of the strategies for poverty reduction, where the sector is fully supported by the requisite skilled labour, necessary knowledge, access to financing, and sustainable agricultural techniques. The agricultural industry is currently underperforming, and this study argues that Government ought to provide financial support to the sector to boost employment and sales revenue, particularly in Ghana's rural areas. Finally, the conceptual framework was examined regarding employment and sales growth using the constructs: managerial expertise; information asymmetry; transaction cost; access to credit, as well as the controlling variables of business technology; and education level managers. The study's research methodology is discussed in the next chapter.

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CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter provides a thorough overview of the research methods used in this study. Every element of quantitative research must be repeatable. This objective can be accomplished if the researcher gives a clear process for the methods and techniques used during the investigation.

The research methodology pursues the attendant interrelated goals. The chapter explains the strategies and methods used and how these contribute to the study's aims. This chapter justifies the philosophical perspective adopted in the study and the numerous data and methodological decisions made at each research stage. Finally, the chapter examines the advantages and disadvantages of various data and methodological choices. This activity is essential since the influence of managerial expertise; information asymmetry; transaction cost; access to credion SSAB could be multi-faceted, necessitating investigation through quantitative studies. Doing the above presents future research directions and methodological approaches in investigating the impact of the variables mentioned above on SSAB performance.

3.2 RESEARCH DESIGN

This research employed a cross-sectional survey research design. Based on a study undertaken by Punch (2013), a cross-sectional design aims to gather information from a single point in time or many. According to Privitera (2014), survey research design involves using chains of questions, obtainable through oral and written statements, that symbolise either a group or individuals. Usually, the data collected includes correspondents' attitudes, beliefs, and perceptions of given information. The respondents selected for this current study from owner-managers of SSABs, who harboured enough knowledge of SSAB management and had been in a managerial position for more than two years at the time of conducting the

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study. Based on Biggam (2008) and Saunders et al. (2009), the survey design was deemed appropriate taking into consideration the size, cost involved, and the duration to conduct this research. Lastly, according to Cohen, Manion and Marrison (2007), survey design tests theories and models.

3.3 RESEARCH PHILOSOPHY

This research is based on positivism, which refers to a natural scientist's philosophical perspective requiring a generalised result obtained from a given study and applied to a phenomenon researched elsewhere (Saunders et al., 2019). According to Comte, positivist philosophy is considered a worldwide method grounded in what is known as the scientific approach. Positivism philosophy is typically used to detect cause-and-effect relationships. It relies heavily on deductive logic, hypothesis construction, testing those hypotheses, calculations, extrapolating, and deriving conclusions from data. As noted by Singh (2015), positivist philosophy employs a quantitative methodology, where the research hypothesis is tested for verification or falsification.

The study uses a positivist paradigm because the researcher sought to maintain an objective stance regarding the effect of managerial expertise, information asymmetry, transaction cost, and access to credit on the performance of SSABs. Thus, a structured questionnaire was used, leaving no room for bias (Gill & Johnson, 2002). Lastly, positivism was chosen because of the belief that knowledge exists to be discovered from the owners of SSAB and can be quantified (Neurath, 1973; Fadhel, 2002). This approach (positivism paradigm) was adopted in a similar study by Turyahebwa, Sunday and Ssekajugo (2013) to investigate the impact of financial management skills on small scale business performance.

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3.4 RESEARCH APPROACH

In social science research, a research approach refers to the method by which theories are developed and tested (Gill & Johnson, 2002; Saunders et al., 2009). This study uses a deductive approach. The deductive method is typically quantitative and is mainly utilised for theory testing. The deductive process begins with a pre-existing theory, creates hypotheses, and accumulates and provides analysis to test the theory (Bryman, 2012). The hypotheses are either verified or rejected (Burns & Burns, 2008; Saunders et al., 2009). This approach can assist researchers in determining whether or not their arguments are sound. Its flaw is that it cannot be used to gain a deep grasp of the actors' human behaviour in a study (Bryman and Bell, 2011; Popper, 1959; Bryman & Bell, 2011). For example, Masa'dehet al. (2015), used this approach to investigate how richness of knowledge sharing among organization impacts performance.

3.5 THE RESEARCH SETTING

Nkoranza South District covers 923 square kilometres of land. It is bordered to the north by the Nkoranza North District, to the west by the Techiman Municipality, and to the south by the Ejura-Sekyedumase and Offinso North Districts, both in the Ashanti Region (Population & Housing Census, 2010).

Around 75.5% of the population aged 15 and over are economically active, while 24.5% are not; 96.4 are employed, while 3.6 % are jobless. Approximately 75.0 % of the employed population is employed in agriculture, forestry, and fisheries as skilled workers; 8.0% are used in services, 7% work in craft and associated trades, and 5% are managers and professionals. A larger share of economically inactive people are students (46.2%), 29.8% undertake household responsibilities, and 7.1% are disabled. (Population & Housing Census, 2010).

Agriculture and allied activities are the main economic activities of the Nkoranza South District. Maize, cassava yam, watermelon and mango are the most widely grown crops in the municipality. Agro-processing, forest products, primary

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fabrication, and services are the main industrial activities in the municipality. Palm oil extraction, cassava processing (especially gari and cassava dough), pito brewing, sawmilling, soap-making, carpentry, and poultry farming are among the small-scale manufacturing and processing industries. Industrial activities (manufacturing and processing) are carried out on a small scale in the district, but they have the potential to increase, particularly in agro-processing. (Population & Housing Census, 2010).

3.6 POPULATION AND SAMPLING STRATEGY

Research population refers to the total element with the same characteristics that imitate the specification of the study (Denzin & Lincoln, 2013). As noted by Bryman (2012) and Creswell (2017), correspondents in the population must possess at least a single attribute of interest. In addition, Fowler (2014) and Burns-Grove (2001) define the research population as the total element drawn from the data that meet the study's criteria. For this study, SSABs (cassava processing, poultry production, cashew nut processing, agrochemical and equipment sellers, and corn processing) in the Nkoranza South region of the Bono East region of Ghana constitute the study population. SSABs who were all in the cassava processing, poultry production, cashew nut processing, agrochemical and equipment sellers, and corn processing (SSABs) who had operated in the Nkoranza South District at the time of the study numbered 239 in total.

3.6.1 Unit of analysis

In any research endeavour, determining the research unit of analysis plays a critical function. The unit of analysis refers to the entity under investigation in a scientific inquiry. According to Kuma (2014), the unit of analysis constitutes elements selected from the research, which this study chooses as SSAB owners operating in the Nkoranza South District in the Bono East Region.

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3.6.2 Sampling criteria

Sampling criteria in research describe the main specific features that must be contained by the elements in the population (Denzin & Lincoln, 2013). According to Burn and Grove (2008), features for attachment restrict the investigation to the population of interest. Consequently, to meet the research aim and objectives, SSABs must possess specific characteristics.

Consequently, for an SSAB to be included in the research, they ought to fulfil the following four features:

I. the SSAB must be operating in the Nkoranza South in Bono East;
II. the SSAB must be in operation for not less than two years;
III. the SSAB must have an owner/ owner-manager who knows the business; and
IV. the SSAB must be registered with a District or Municipal Assembly or the Registrar General Department.

3.6.3 Sampling technique

According to Easton and MaColl (2007), sampling refers to selecting a population sample to serve as the foundation for calculating population results and detecting unknown information. A random sample of a population is taken from each subgroup to represent the entire population using a stratified sampling method that entails surveying target groups and separating these into strata (subgroups) (Pradhan, 2013).

Stratified sampling was used to segment the target population into strata based on SSABs. The five strata of the SSABs were determined, and respondents were obtained from each stratum using a stratified sampling technique in the Nkoranza South District of the Bono East of Ghana (Lakpo & Lakpo, 2014). All SSABs in the Nkoranza South, made up of 239 SSAB, were grouped into five groups, viz.: cassava processing (120); poultry production (40); cashew nut processing (38); agrochemical and equipment dealers (15); and corn processing (26), to represent

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the various strata based on the above criteria. According to Lapko and Lapko (2014), one of the advantages of stratified random sampling is that it ensures accuracy and convenience.

3.6.4 Sample size determination

The sample size is always more important to view the absolute size of the sample than its comparative size connecting to the population. According to Frey et al. (2000), a sample size refers to the numbers selected to represent the population of a study Yamame (1967). S = N[1+N(e2)], S = sample size, N = Targeted population, e = marginal error (degree of freedom =0.05). The sample size determined for the SSABs is as follows.

Table 3.1: Sample size determination for SSABs

Cassava processing	Poultry production	Cashew-nut processing	Agro-chemical and Equipment dealers	Corn processing
$S=\frac{120}{[1+120(0.052)]}$ $=\frac{120}{1+(120\times0.0025)}$ $=\frac{120}{1+1}$ $=\frac{120}{1.3}$ = 92	$S=\frac{40}{[1+40(0.052)]}$ $=\frac{40}{1+(40\times0.0025)}$ $=\frac{40}{1+0.1}$ $=\frac{40}{1.1}$ = 36	$S=\frac{38}{[1+38(0.052)]}$ $=\frac{38}{1+(38\times0.0025)}$ $=\frac{38}{1+0.95}$ $=\frac{38}{1.095}$ = 34	$S=\frac{15}{[1+15(0.052)]}$ $=\frac{15}{1+(15\times0.0025)}$ $=\frac{15}{1+0.0375}$ $=\frac{15}{1.0375}$ = 14	$S=\frac{26}{[1+26(0.052)]}$ $=\frac{26}{1+(26\times0.0025)}$ $=\frac{26}{1+0.065}$ $=\frac{26}{2}$ = 24

From the sample size determination Table 3.1 above, 200 small-scale agribusinesses were selected to represent a population of 239 SSABs in the Nkoranza South District in the Bono East Region of Ghana. Out of the 200 administered questionnaires sent in 2021, 192 of the questionnaires were retrieved, which constituted 96 %.

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3.7 DATA TYPE, SOURCES AND ANALYSIS

The data obtained for the research was collected from cassava processing, poultry production, cashew nut processing, agrochemical and equipment sellers, and corn processors, which served as quantitative data from a primary source. According to Saunders et al. (2007), since primary data are garnered from the original source, they are more reliable and considered first-hand when collected by the principal researcher himself (Creswell (2017). Primary data collection could be pretty expensive and time-consuming. This study used questionnaires for primary data collection, as discussed below.

The study applied the Statistical Package for Social Science (SPSS) version 26 to process the quantitative data collected. According to Antonius (2003), SPSS enables the researcher to study the relationships among variables and their impact. The analysis was therefore executed across four (4) stages. First, the descriptive analysis was done to understand the normality of the demographic data and other relevant descriptive information. Secondly, a frequency analysis was done on all the demographic variables to understand the respondents' nature and their peculiar characteristics. Third, the Pearson Correlation Coefficient was used to determine the relationships and intercorrelations among all variables under investigation. Finally, a regression analysis was executed to assess the impact of managerial expertise, information asymmetry, transaction cost, and access to credit on SSAB's employment and sales growth.

3.8 THE MEASUREMENT INSTRUMENT

According to Hancock and Algozzine (2015), a questionnaire is helpful during survey research to collect quantitative data. A custom questionnaire was developed based on the study objectives and the literature review (Zikmund et al., 2013). The questionnaire was calibrated as a Likert scale with five points. Creswell (2017) states that questionnaires are an essential data collection tool in quantitative research and are also used when applying mixed methods. A questionnaire for this research employed quantitative approach.

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3.8.1 Managerial expertise variable

Small scale agribusiness operates successfully when managers possess the requisite skills. Numerous skills, such as product development, innovation, financial literacy, and customer development, are essential to every manager (Custodio et al., 2017; Newman et al., 2014). Managerial expertise constructs were examined with ten items: product innovation skills, human resource management skills; financial literacy skills; formal management skills; permanent employees with three years of experience; budgeting skills; customer services skills; environmental skills; and accounting and marketing skills. The constructs were respectively measured on Likert scale, anchored by strongly disagree (1), and strongly agree (5). The managerial expertise construct occupied section C of the questionnaire.

3.8.2 Information asymmetry variable

Information plays a significant role in the success of small-scale business performance. Small scale agribusinesses cannot survive without having access to reliable information (Huo & Zhang, 2021). Information may concern the price of produce, raw materials; source of raw materials; feedback from customers; accurate details on product; and risk factor information. The information asymmetry constructs occupied section C of the questionnaire. The constructs were measured on a Likert scale, anchored by strongly disagree (1) and strongly agree (5).

3.8.3 Transaction cost variable

Based on the observation from Awunyo-Victor et al. (2014) and Balana et al. (2014), SSAB operations are costly. As a result, it has become expensive for the agricultural sector to operate since investment in the sector in borrowing is pretty expensive (Awunyo-Vitor et al., 2014). To address the transaction costs associated with SSAB's costs of a loan, professional advice, transport; stock; outsourced accounting activities, and incentive packages cost were examined. The transaction

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cost constructs occupy Section C of the questionnaire. The constructs were measured on a Likert scale, anchored by strongly disagree (1) and strongly agree (5).

3.8.4 Access to credit variable

A general assumption is that SSABs with access to credit (Aghion et al., 2018) make it easier for managers to innovate and increase SSAB performance, but having access to finance is problematic for SSABs operating in rural areas. The researcher sought to address these financial challenges, where constructs such as loan requirement, the application process, interest rate charge, landed property as collateral, and cash collaterals were examined. The constructs were respectively measured on Likert scale anchored by strongly disagree (1) and strongly agree (5). Access to credit constructs occupied section C of the questionnaire.

3.8.5 Performance measurement of the SSABs

Agricultural development has improved, with all agricultural industry segments working together to raise productivity (Gitta & South, 2012). Productivity is associated with employees. Employee contribution to business performance should therefore be of interest when considering the measurement of the performance of SSABs.

According to Katchova and Enlow (2013), agribusiness links farmers with retailers and consumers. Donovan et al. (2015) and Montalbano et al. (2018) argue that the competitiveness of SSABs depends on how they manage their performances, which leads to higher output. Usually, a small business largely depends on performance measures like return on sales and sales per employee (Kennerly & Neely 2003; Welch & Mann, 2001). This study applies employment growth and sales growth, as discussed below.

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3.8.5.1 Employment growth

The productivity of agribusiness depends on the effectiveness of people skills applied in different field operations within the sector. Employers of such organisations consider the knowledge of success factors and characteristics associated with employment in agribusiness. According to Udimal, Anyimba and Sarpong (2017), employment generation for the performance of agribusiness is one of the critical factors employers take into consideration, which may include: education; training; owner's parent/s being entrepreneur/s; attending business meetings and trade fairs; and managerial skills, are found to have a significant effect on growth in sales. A company's ability to generate skilled and unskilled labour represents the best way to achieve excellent performance (Magableh et al., 2011). The research captured five years of employment data from the various SSABs (2016-2020), which can be found in section D of the questionnaire.

3.8.5.2 Sales growth

Sales growth is an essential factor for small-scale agribusiness performance because the business's survival depends on cash. To be able to run operations effectively, small-scale agribusiness depends on sales growth in terms of cash flows of their produce, products, and services. According to Gaur and Kesavan (2015), organisations' sales rise with the sales growth rate, but much depends on the company's size. This study considers sales growth an indicator of growth separate from employment. The researcher captured sales growth from five years of SSABs (2016-2020).

3.8.6 Control variables

Numerous factors affect the performance of SSABs. Researchers Samwel and Daoping (2019) and Rahaman et al. (2021) investigated technology, business age and education. They observed that businesses could not operate without staff going through effective and adequate training and implementing the best

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technology to increase the quality of goods and years of operation and gain relevant business knowledge. The study's control variables were business age, business technology, and managers' education level. In other words, they are the turnaround factors for SSAB growth.

3.8.6.1 Business age variable

The number of years small-scale agribusiness operate significantly affects their performance. According to Rahaman et al. (2021), business age significantly impacts business performance. Empirical evidence from Cooper et al. (1994) proposes that a business's current and strategic goals depend on the business age. Also, higher performance age groups businesses can be absorbed and exploit external information and resources, boosting business performance (Yoo & Young, 2018). Business age in Section B of the questionnaire is measured in the following brackets: 2-5 years; 6-10 years; 11-15years; and more than 15 years.

3.8.6.2 Business technology variable

It has been argued that most SSABs depend on technology, as it improves their performance, drives rural development, and enables SSABs to operate competitively, with access to international markets (Samwel & Daoping, 2019). Technology implementation in enterprises strongly influences their operations, especially those industries involved in smart manufacturing projects. According to Gajdzik and Wolnaiak (2022), the implementation of technology in the industry has positive effects, such as the reduction in operating cost, speed of production, higher productivity, staff reduction, and increase in quality of products, as well as a good level of customisation of products. Business technology was measured on a scale of 1, indigenous technology; 2, foreign technology; and 3, hybrid technology, and can be found in section B of the questionnaire.

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3.8.6.3 Manager's level of education variable

The education of business owners, employees and other skilled and unskilled workers predominantly influence firm performance. According to Newman et al. (2014), managers with knowledge and skills in accounting and marketing numeracy significantly impacted their firm's operations more than those without such knowledge. This view was confirmed by Masar and Brezina (2019), who state that managers who are educated gain business competitiveness and efficiency in production processes. Similarly, evidence from Saidu (2019) and Kokeno and Muturi (2016) indicates that chief executive officers with a good education significantly affect their business performance. Managers' education level was measured on the following grounds: no formal education, primary education, secondary education, undergraduate and post-graduate, which can be located in Section A of the questionnaire.

3.9. QUESTIONNAIRE ITEMS

Questionnaires items used in measuring the managerial expertise; information asymmetry; transaction cost; access to credit constructs are presented below in Tables 3.2, 3.3, 3.4, 3.5 and 3.6, respectively.

Table 3.2: Questionnaire Items for managerial expertise

Managerial Expertise (Custodio et al., 2017; Fatoki, 2011; Rambe & Makhalemele, 2015; Hong and Wu, 2021; Huang, 2014; Asha, 2019)
I have enough experience in product innovation. (14 a)
I have enough competency in managing people. (14 b)
I have good financial literacy skills. (14 c)
I depend on formal management practices. (14 d)
I have permanent employees that have at least three years of working experience. (14 e)
I have budgeting skills. (14 f)

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Table 3.3: Questionnaire items for information asymmetry

Information Asymmetry (Mitchell, 2014; Tadesse & Bahiigwa, 2015; Deichmann et al., 2016; Negi & Anand, 2015)
I have available information on produce prices. (15 a)
I have available information on price of raw materials. (15 b)
I have available information on source of raw materials. (15 c)
I get feedback from customers on services rendered. (15 d)
I provide accurate information on products. (15 e)
I have information on risk factors in my business. (15 f)

Table 3.4: Questionnaire items for transaction cost

Transaction cost (Agburu et al., 2017; Musso & Weare, 2019; Maiga et al., 2020)
I pay high interest rates on loans granted. (16 a)
I pay a high cost to seek professional advice. (16 b)
I pay a high cost to transport my produce to the market. (16 c)
I pay a high cost to get stock from my suppliers. (16 d)
I pay a high cost to outsource accounting activities (Financial reporting and Tax processing). (16 e)
I pay a high cost to provide incentives package to improve organisation growth (16 f).
I pay a high cost to have access to relevant information. (16 g)

Table 3. 5 Questionnaire items for access to credit

Access to credit (Tendai & Ellen,2018; Appiah et al. 2018; Ndinda & Gilau, 2018; Babajide, 2017; Ameyaw & Omari, 2015)
I understand the requirements for accessing loans. (17a)
The application process was not cumbersome for me. (17 b)
The interest charged on the loan is affordable for me. (17 c)
I was requested to provide property as collateral for the loan. (17 d)
I was requested to provide a cash collateral for the loan. (17 e)

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Table 3. 6 Questionnaire items for SSAB performance

SSABs performance (Donovan et al., 2018; Gitta & South 2012; Le & Raven, 2015)
Employment (18) 2016 2017 2018 2019 2020
Number of full-time skilled employees (18 a)
Number of part-time skilled employees (18b)
Number of full-time employees (18 c)
Number of part-time skilled employees (18 d)
Sales (19) 2016 2017 2018 2019 2020

3.10 THE PILOT STUDY

A pilot study of 50 SSABs was conducted preceding quantitative data collection. The respondents in the pilot study do not form part of the main SSABs selected for the study. According to Brink (2012), a pilot study constitutes a minor version of the larger aspect of the study. The pilot study was conducted by the researcher to pre-test the questionnaire, as well as to improve its quality and make sure the respondents well understood all questions. During the pilot study, most problematic words were amended for the respondents to understand before the main quantitative study began. Additionally, a pilot study is tested to determine interior uniformity, applying Cronbach's alpha in the SPSS, a quantitative data collection instrument. Table 3.7 represents reliability data from the pilot study.

Table 3.7: Reliability test

Variables	Cronbach's Alpha	Cronbach's Alpha on Standardised items	Number of items
Managerial Expertise	0.689	0.739	10
Information Asymmetry	0.598	0.657	6
Transaction Cost	0.689	0.789	7
Access to Credit	0.738	0.741	5

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3.11 VALIDITY MEASUREMENT

It is critical to implement an adequate study design (Abowitz & Toole, 2010; Creswell, 2014). According to Blumberg et al. (2008), the validity of research design precisely measures what it is intended to measure. According to Polit and Beck (2012), validity is the most trustworthy and authentic portrayal of the study method and outcome. When evaluating the study design's effectiveness, Yin (2009) advocated for four primary tests: validity, internal validity; external validity; and reliability. Internal validity is concerned with determining the causality of interactions, whereas construct validity is concerned with selecting the appropriate measurements for the concepts under inquiry. The study area of a study is usually predicated on external validity. Validity is impossible without reliability (Lincoln & Guba,1994). After a thorough review of comparable studies, a questionnaire was created following the objectives. In addition, questionnaires were presented to 50 SSAB managers to assess the appropriateness of the questionnaire and achieve a construct validity measurement.

3.12 MEASUREMENT OF CONSTRUCT RELIABILITY

According to Blumberg et al. (2008), the replicability of a study designed to determine the same conclusion is reliable, and the research findings are similar (Bazeley, 2013). A reliability test was conducted on this study's managerial expertise; information asymmetry; transaction cost; access to credit, as illustrated below in Table 3.8.

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Table 3.8: Summary of reliability test

	Construct and Variables	Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items	Cronbach's alpha items if deleted
No.	**Managerial Expertise**	0.727	0.763	10	
1	Product innovative experience of managers				0.710
2	Experience in managing people				0.709
3	Financial literacy skills of managers				0.643
4	Formal management practices within the firm				0.664
5	Permanent employees with 3 years' work experience				0.740
6	Managers budgeting skills				0.706
7	Customer service skills of managers				0.717
8	Environmental management skills of managers				0.708
9	Accounting skills of managers				0.695
10	Marketing skills of managers				0.733
	Information Asymmetry	0.448	0.564	6	
1	Information on produce price				0.500
2	Information on raw material price				0.187
3	Information on material source				0.179
4	Feedback from customers				0.573
5	Accurate details on product				0.570
6	Risk factors in the business				0.269
	Transaction Cost	0.622	0.749	7	
1	Interest rate on loan				0.761
2	Cost of professional advice				0.566
3	cost of transportation				0.530
4	Stock cost from supplies				0.513
5	Cost of accounting activity outsourced				0.573
6	Cost of Incentive packaged				0.556
7	Cost of relevant Information				0.520
	Access to Credit	0.762	0.764	5	
1	Requirement for accessing loan				0.734
2	Application process to get loans				0.653
3	Loan application to financial Institution				0.718
4	Landed property collateral demanded by financial institution				0.751
5	Cash collateral demanded by financial institution				0.725

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3.13 EXPLORATORY FACTOR ANALYSIS

In social science and many other disciplines, researchers frequently come across a large data set for observing groups of people or objects. This study used factor analysis to measure the perception of owner-managers views on SSAB performance. Most studies use projected statistical measures to determine the number of divergent constructs needed to account for the patterns of correlations among the sets of measures used. Alternatively, Anderson and Gerbin (1988) found factor analysis to be a relevant tool for data analysis to detect the factorial structure of each variable. Factors less than 0.5 for new models and 0.6 for existing models are deleted and calculated to reach 7.0 (Hancock & Mueller, 2010).

The researcher conducted Principal Component Analysis with the Rotation Varimax to detect the factorial structures of managerial expertise, information asymmetry, transaction cost, and access to credit constructs. Twenty-eight (28) factors were analysed, giving rise to Eigenvalues greater than 1.000, and consistently proposed constructs managerial expertise; information asymmetry; transaction cost; access to credit (MC, IA, TC, and AC), respectively. Kaiser-Mere-Olkin statistics: 0.572; Bartlett Test of Sphericity: X^2 - = 5108.001, df = 378, p = 0.000.

A majority of 75% of variances resulted from seven factors, which are computed. From the investigation, SSABME arose as the significant factor, with an Eigenvalue of 7.434, which explains the 26.5551% variance of ME, IA, TC, AC, and SSABAC, the least Eigenvalue of 1.312, explaining 4.684% variance in ME, IA, TC, and AC.

Measurement was done to ensure sufficient correlation exists among the construct to achieve validity (Hair et al.,2003). The KMO values obtained for the factor analysis were of a minimum value of 0.05. Furthermore, the PCA included a scree plot for examination, clearly illustrating the components to be considered for analysis. Finally, the items with significant loading were used in regression analysis to test the hypothesis (Parasurama et al.2004). Below are tables 3.9 and 3.10

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items of ME, IA, TA, and AC construct, loadings explained, and exploratory factor analysis for MC, IA, TC, and AC constructs.

Table 3.9: Factor analysis summary

ROTATED COMPONENT MATRIX							
	Component						
	Facotor1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Financial literacy skills	0.824	0.265	-0.232	0.041	-0.141	0.075	-0.031
Formal management Practices	0.689	0.432	-0.223	0.129	0.030	-0.152	0.208
Product innovation experience	0.584	0.171	0.266	-0.213	0.359	0.132	-0.162
Experience in managing people	0.497	-0.012	-0.305	0.200	0.403	-0.045	-0.019
Environmental management skills	0.447	0.000	-0.404	0.379	-0.146	-0.063	-0.122
Marketing skills	0.122	-0.409	-0.204	-0.350	0.353	-0.384	0.165
Customer service skills	0.384	-0.265	-0.559	0.527	-0.024	-0.151	0.095
Accounting skills	0.583	0.132	-0.075	-0.611	-0.032	-0.102	0.108
Budgeting skills	0.471	-0.204	-0.248	-0.136	0.565	-0.018	0.062
Permanent employees with 3yrs' working experience	0.059	-0.428	-0.253	0.451	0.562	-0.011	-0.224
Feedback from customers	-0.878	-0.032	0.065	0.282	0.196	-0.026	0.196
Accurate details on product	0.607	0.210	-0.292	-0.164	0.279	0.097	0.253
Information on material source	-0.342	0.699	-0.108	0.293	0.083	0.027	0.343
Risk factors in the business	-0.177	0.622	-0.275	0.234	-0.281	0.279	-0.034
Information on raw material price	-0.330	0.594	-0.126	0.410	0.189	-0.007	0.402
Information on produce price	0.268	0.493	-0.084	-0.324	0.217	0.460	-0.319
Cost of Incentive Packaged	0.899	0.208	-0.047	-0.119	-0.234	0.134	0.106
Stock cost from supplies	0.672	-0.347	0.281	0.145	0.038	0.322	0.262
Cost of relevant information	0.599	-0.190	-0.018	0.188	-0.552	-0.170	0.041
Cost transportation	0.589	-0.302	0.310	0.025	0.010	0.449	0.363
Cost of accounting activity outsourced	0.210	-0.538	0.312	0.174	-0.069	0.426	0.265
Interest rate on loan	-0.270	0.160	0.625	0.321	0.337	0.113	0.053

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Cost of Professional advice	0.471	-0.485	0.119	0.488	-0.200	-0.147	-0.039
Landed property collateral	0.556	0.266	0.088	0.260	0.028	0.033	-0.366
	0.500	0.271	0.537	-0.001	0.058	-0.347	0.043
Requirement for accessing loan	0.361	0.099	0.410	0.225	0.060	-0.207	-0.324
cash collateral	0.401	0.333	0.392	0.473	0.147	-0.001	-0.200
Loan application to financial institution	0.376	0.298	0.459	-0.092	0.016	-0.578	0.266

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.572
Bartlett's Test of Sphericity	Approx. Chi-Square	5108.001
	Df	378
	Sig.	0.00

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Table 3.10: Factor extraction for the independent variables

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.434	26.551	26.551	7.434	26.551	26.551	5.219	18.638	18.638
2	3.48	12.427	38.978	3.48	12.427	38.978	2.996	10.699	29.337
3	2.624	9.371	48.348	2.624	9.371	48.348	2.849	10.176	39.513
4	2.555	9.125	57.474	2.555	9.125	57.474	2.81	10.036	49.549
5	1.928	6.884	64.358	1.928	6.884	64.358	2.68	9.572	59.121
6	1.598	5.708	70.066	1.598	5.708	70.066	2.381	8.504	67.625
7	1.312	4.684	74.75	1.312	4.684	74.75	1.995	7.126	74.75
8	0.999	3.569	78.32						
9	0.918	3.28	81.6						
10	0.783	2.795	84.395						
11	0.707	2.524	86.918						
12	0.582	2.077	88.996						
13	0.473	1.688	90.684						
14	0.422	1.507	92.191						
15	0.361	1.289	93.48						
16	0.341	1.219	94.699						
17	0.322	1.149	95.848						
18	0.255	0.912	96.761						
19	0.208	0.742	97.503						
20	0.159	0.57	98.072						
21	0.155	0.554	98.626						
22	0.104	0.371	98.997						
23	0.086	0.307	99.304						
24	0.068	0.244	99.548						
25	0.06	0.215	99.763						
26	0.039	0.138	99.901						

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27	0.017	0.062	99.964						
28	0.01	0.036	100						
Extraction Method: Principal Component Analysis.									

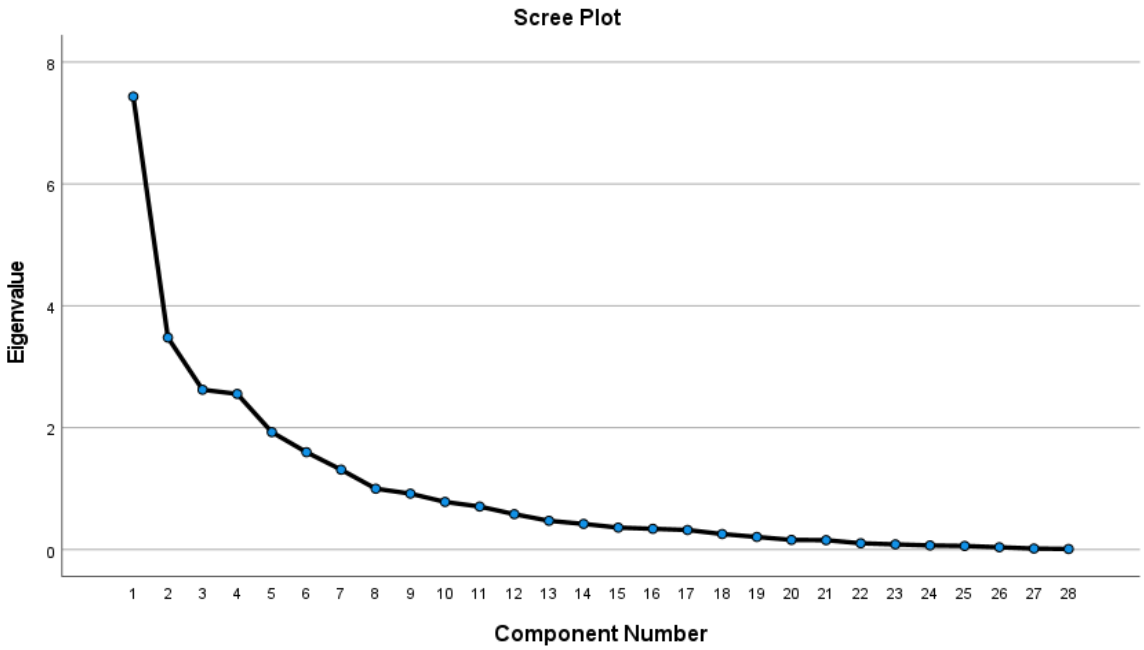

Figure 3.1: Scree plot of independent variables

3.15 ETHICAL CONSIDERATIONS

When humans are used as participants in any form of research, they must be given the maximum protection for their fundamental rights and dignity (Gregory 2003). Ethical consideration in research is underpinned by moral principles or the standard governing the conduct of the study, which are mandatory in any investigation. The following were observed to ensure ethics in the study.

The stakeholders involved in the research, agribusiness owners and managers of the SSABs, were adequately informed regarding the study's primary goal. Participant names, workplaces, and data that may reveal their identity were not reordered. The questionnaire clearly spelt out the research area and indicated the participants' role in the research. Participants in the study were assured that all

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sensitive information would be protected with the greatest confidentiality. Participants were allowed to participate of their own free will. The participants were also allowed to participate in their own choice of office. Questions were asked to enable managers without higher education experience to answer them. The knowledge and ideas captured in the study were referenced accordingly. Ethical principles in the research, such as freedom from harm, anonymity, confidentiality, the principle of public domain, accountability, and transparency, will be maintained after the research.

3.16 CHAPTER SUMMARY

This chapter has explained the methods and tools used, their suitability and how they were applied to the research. The chapter revealed positivism as the most appropriate theoretical approach to quantitative philosophy, as it allows a researcher to maintain valid truth and an objective stance on the data collected. The chapter also explained the research design, deductive approach, research area, and strategy adopted for the study. The targeted population, units of analysis, and sample size were explained. For effectiveness, the questionnaire piloting study was conducted.

Exploratory factors considered through the principal component analysis to check the factorial structure of each construct, reliability testing, and data analysis using the SPSS version 26 were discussed. Additionally, validity and reliability were also measured. In conclusion, ethical considerations guiding research were explained. The succeeding chapter deals with the presentations and discussions of quantitative results.

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CHAPTER 4: FINDINGS AND DISCUSSION

4.1 INTRODUCTION

The research design and technique were addressed in the previous chapter. The results of the factor analysis and reliability test on the ME, IA, TC, and AC constructs are presented in this chapter. This chapter presents and discusses the regression findings concerning the proposed research framework. The results are also understood and discussed in the literature on small-scale agribusiness. This section analyses the impact of management expertise, information asymmetry, transaction cost, and credit access on SSAB performance. The chapter aims to determine the effects of managerial expertise, information asymmetry, transaction costs, and credit access on SSAB performance in two key growth areas: employment and sales.

4.2 DESCRIPTIVE STATISTICS

The descriptive statistics in Table 4.1 below describe the small-scale agribusiness in connection to mean, standard deviation, minimum and maximum values, skewness and kurtosis, and business characteristics. Descriptive statistics also consider the dependent and independent variables. The descriptive statistics of participants' gender has a mean of 1.29 (SD-0.456); the manager's marital status has a mean of 1.23 (SD-0.460); and managers' business roles and education levels have a mean of 1.58 (SD-0.682) and 2.28 (SD-1.203), respectively. This has a beneficial impact on SSAB performance. Managerial expertise, transaction cost, information asymmetry, and access to credit affect SSAB performance, according to the output and the mean values for the dependent variables (Employment =3.7734, sales =134843.9889). The skewness values show that neither the independent nor the dependent constructs are positively or negatively skewed. This shows data is dispersed normally. Furthermore, the mean values from the output indicate all the independent variables play a significant role in determining dependent variables. As can be viewed from the table below, transaction cost

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variables have the highest mean (3.9575), whereas information asymmetry has the lowest mean (2.5067).

Table 4.1: Descriptive statistics

Descriptive Statistics								
	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Gender of Participants	1	2	1.29	0.456	0.924	0.175	-1.159	0.349
Managers Age	2	5	2.90	0.675	0.327	0.175	-0.051	0.349
Marital Status of Managers	1	3	1.23	0.460	1.742	0.175	2.132	0.349
Managers role in the business	1	3	1.58	0.682	0.765	0.175	-0.564	0.349
Education level of Mangers	1	4	2.28	1.203	0.128	0.175	-1.600	0.349
Business Registration	2	5	3.24	0.757	-0.295	0.175	-0.933	0.349
Business Ownership	1	2	1.27	0.446	1.040	0.175	-0.929	0.349
Business activities	1	5	2.16	1.364	0.915	0.175	-0.410	0.349
Business Technology	1	3	1.21	0.459	2.043	0.175	3.486	0.349
Source of Finance	1	5	2.17	0.985	1.774	0.175	3.205	0.349
Value of fixed Asset	2	5	2.82	1.144	0.968	0.175	-0.680	0.349
Capital invested	2	5	2.82	1.144	0.968	0.175	-0.680	0.349
Age of the Business	2	4	2.60	0.614	0.505	0.175	-0.623	0.349
Product innovation experience	1	5	1.70	1.392	1.545	0.175	0.557	0.349
Experience in managing people	4	5	4.27	0.446	1.040	0.175	-0.929	0.349
Financial literacy skills	2	5	3.48	1.171	-0.256	0.175	-1.497	0.349
Formal management practices	1	5	3.04	1.643	-0.339	0.175	-1.673	0.349
Permanent employees with 3 years working experience	3	5	4.54	0.540	-0.571	0.175	-0.869	0.349
Budgeting skills	4	5	4.22	0.414	1.371	0.175	-0.121	0.349
Customer service skills	4	5	4.24	0.431	1.196	0.175	-0.575	0.349
Environmental management skills	2	5	4.11	0.669	-1.302	0.175	3.615	0.349
Accounting skills	2	5	3.24	1.223	0.129	0.175	-1.669	0.349
Marketing skills	2	5	4.03	0.613	-1.532	0.175	5.052	0.349
Information on produce price	1	5	2.50	1.093	0.998	0.175	-0.204	0.349
Information on raw material price	1	4	2.16	0.890	0.903	0.175	0.245	0.349
Information on material source	1	4	1.92	0.697	1.335	0.175	3.254	0.349

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Feedback from customers	1	4	2.77	1.270	-0.212	0.175	-1.698	0.349
Accurate details on product	1	4	2.38	1.066	0.500	0.175	-1.051	0.349
Risk factors in the business	1	4	2.03	0.868	1.008	0.175	0.684	0.349
Interest rate on loan	1	5	3.79	1.334	-0.990	0.175	-0.305	0.349
Cost of Professional advice	2	5	4.35	0.629	-0.941	0.175	2.149	0.349
Cost Transportation	2	5	4.36	0.673	-1.318	0.175	3.127	0.349
Stock cost from supplies	2	5	4.35	0.671	-1.294	0.175	3.117	0.349
Cost of accounting activity outsourced	1	5	4.43	0.809	-2.190	0.175	6.279	0.349
Cost of incentive packaged	1	5	2.93	1.828	-0.018	0.175	-1.884	0.349
Cost of relevant information	1	5	3.32	1.527	-0.416	0.175	-1.419	0.349
Requirement for accessing loan	1	5	3.81	0.926	-0.965	0.175	1.522	0.349
Application process	1	5	2.95	1.195	0.128	0.175	-0.975	0.349
Loan application to Financial institution	1	5	2.98	1.261	0.261	0.175	-1.000	0.349
Landed property collateral	2	5	3.99	0.874	-0.407	0.175	-0.719	0.349
cash collateral	1	5	3.19	1.302	0.413	0.175	-1.414	0.349
Managerial Expertise	3.00	4.70	3.6891	0.51535	0.589	0.175	-0.791	0.349
Information Asymmetry	1.43	4.00	2.5067	0.51617	0.301	0.175	1.293	0.349
Transaction cost	1.67	5.00	3.9575	0.76104	-0.156	0.175	-0.444	0.349
Access to finance	1.80	5.00	3.3844	0.80572	0.619	0.175	-0.241	0.349
Employment growth	0.75	11.25	3.7734	2.45458	1.490	0.175	1.369	0.349
Sales growth	11788.04	558004.20	134843.9889	120570.24012	1.613	0.175	3.648	0.349

4.3 DEMOGRAPHIC ANALYSIS OF RESPONDENTS

The demographic features of the respondents are examined in this section. Gender distribution, respondent age, and respondent marital status were also discussed, not forgetting the respondent's role in business. Finally, respondent education is among the demographic features examined.

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4.3.1 Gender Distribution

According to the statistics displayed in Table 4.2, males constituted the maximum %age of SSAB in the survey. There were 136 men and 56 females among the 192 respondents, accounting for 70.8 %.

Table 4.2: Gender of respondents

		Frequency	%	Valid %	Cumulative %
Valid	Male	136	70.8	70.8	70.8
	Female	56	29.2	29.2	100.0
	Total	192	100.0	100.0	

Evidence suggests that the SSAB works better with men than women, especially in developing countries (Anokyewaa & Asiedu, 2019). According to a recent study (Setsoafia, Aboah, and Danso-Abbeam, 2015), male owners/managers improve the firm's growth potential by 15% more than female counterparts, allowing males to obtain more external money and upgrade their investments to expand their business. The research shows a considerable gap in the man-to-woman distribution of the agri-business profession, with men owning 77 % of the companies surveyed versus women owning 23 %.

4.3.2 Age of respondents

According to Table 4.3, the maximum number of respondents (109) covers the ages of 35 and 45, accounting for 56.8%. One of the most crucial aspects of SSAB performance is rural agribusiness operators' age. On the other hand, 52 (27.1%) were between the ages of 25 and 35. It was also discovered that 29 (15.1%) of the respondents were between the ages of 45 and 45, and 2 (1.0%) were 55 and up. This means that most of the SSAB managers in the Nkoranza South District are between the ages of 35 and 45. Setsoafia et al. (2015) did a study in Accra, Ghana, focused on the growth restrictions of SSABs among 120 agricultural operators. It found that male owners/managers can boost firm growth potentials by 15% more than their female counterparts.

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Table 4.3: Age of respondents

		Frequency	%	Valid %	Cumulative %
Valid	25-35	52	27.1	27.1	27.1
	35-45	109	56.8	56.8	83.9
	45-55	29	15.1	15.1	99.0
	55+	2	1.0	1.0	100.0
	Total	192	100.0	100.0	

4.3.3 Marital status of respondents

Table 4.4 below shows that 150 respondents (78.1%) are married, 39 (20.3%) are single, and three (1.6%) are divorced. According to the findings, most SSAB owner-managers are all married. This means owners of SSABs keep their families working together to grow SSAB Performance to lower transaction costs and boost employment, resulting in higher production.

Table 4.4: Marital status of respondents

		Frequency	%	Valid %	Cumulative %
Valid	Married	150	78.1	78.1	78.1
	Single	39	20.3	20.3	98.4
	Divorced	3	1.6	1.6	100.0
	Total	192	100.0	100.0	

4.3.4 Respondents' role in business

Respondents' roles in business are another essential component addressed in the demographic analysis. According to the positions filled by the respondents, as given in Table 4.5, 102 respondents (53.1%) were business owners/managers. The findings also revealed that 69 (35.9%) of the SSAB owners were not actively participating in management. In addition, 21 (10.9 %) of the managers were not SSAB shareholders. This is in line with other studies (Copestake, 2007; Dzansi & Atiase, 2014; Helmes, 2006) claiming that small businesses are predominantly used for self-employment, with individuals receiving financial assistance to start

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and accomplish their own organisation. According to these findings, most respondents (53.1%) run their firms and engage in personal activities.

Table 4.5: Respondents' role in business

		Frequency	%	Valid %	Cumulative %
Valid	Owner Manager	102	53.1	53.1	53.1
	Owner	69	35.9	35.9	89.1
	Manager	21	10.9	10.9	100.0
	Total	192	100.0	100.0	

4.3.5 Respondent' education level

The education level of SSAB owners has a significant impact on SSAB improvement. As shown in Table 4.6, 42.7 % of respondents (82) have no formal education. In addition, 12 (6.3%) respondents had received primary education, 61 (31.8%) had attended secondary school, and 37 (19.3%) had received an undergraduate education. This finding implies that just a tiny percentage of respondents had higher education, such as undergraduate degrees, and that most SSAB owners have little formal education, which could negatively affect SSAB performance. According to Rambe and Makhalemele (2015), the education level of proprietors significantly impacts SSAB's success or failure.

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Table 4.6: Respondents' level of education

		Frequency	%	Valid %	Cumulative %
Valid	No-Formal-Education	82	42.7	42.7	42.7
	Primary-Education	12	6.3	6.3	49.0
	Secondary-Education	61	31.8	31.8	80.7
	Undergraduate-Degree	37	19.3	19.3	100.0
	Total	192	100.0	100.0	

4.4 ANALYSIS OF BUSINESS CHARACTERISTICS

Having looked at the demographic features of the respondents, it is time to talk about the organisation profile of SSABs participating in this research. The investigation provides a thorough overview of the SSAB history. The profile contains the following business registration, type of ownership, capital invested, business age, business technology and industry categorisation.

4.4.1 Business registration of SSABs

Small-scale agribusinesses in the Nkoranza South District of Ghana's Bono East have three options for registering their operations. To begin, they can register with an association in the city or town where the business is located. Second, they can register with the District Assembly, which is required, and then with the Municipal Assembly. As shown in Table 4.7, 78 (or 40.6 %) of the 192 SSABs involved in this study have registered with Association. Seventy-seven SSABs, or 40.1 %, registered with District Assembly, 35 SSABs, or 18.2 %, have disclosed with the Municipal Assembly, and two SSABs, or 1%, have not. As a result, minority SSABs (40.6 %) are registered with the Association. An increase in business productivity can fuel economic growth. A diverse range of economic activity is required to grow an economy. Formalising by registering enterprises is a significant consideration for any developing organisation (Ahmad & Poschl,2012). There are various advantages to registering a business. New firm registrations, for example, have been recognised to ensure and provide a reliable employment source for youth

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(Klapper et al., 2015). It also contributes efficiently to GDP and validates innovative happenings.

According to Demenet et al. (2016), small-scale business owners, on the other hand, have been reluctant to register firms to avoid taxation. The majority of SSABs are registered with the association because they believe it provides a speedier link between associations. According to Kankwamba and Kornher's (2020) study on SSABs, social capital has a substantial positive effect on corporate performance.

Table 4.7: Business registration

		Frequency	%	Valid %	Cumulative %
Valid	Municipal-Assembly	35	18.2	18.2	18.2
	District-Assembly	77	40.1	40.1	58.3
	Registered-with-Association	78	40.6	40.6	99.0
	No-formal	2	1.0	1.0	100.0
	Total	192	100.0	100.0	

4.4.2 Ownership structure of SSABs

The legal form of the SSABs involved in this study is examined in this section. According to the findings, the majority of SSABs are sole proprietorships. Table 4.8 demonstrates that 72.9 % of SSABs surveyed (140) were sole proprietorships. According to the report, only 52 (27.1%) of the companies were partnerships. According to Ang et al. (2000), even though businesses owned by individuals have no agency cost in managing, decision-making may be complicated by weak monitoring controls.

Additionally, raising extra finance for business expansion remains a barrier for a sole proprietorship (Coleman & Carsky, 1999). Potential investors cannot create adequate confidence in sole proprietorships where a company's resources and owners are inseparable.

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Table 4.8: Business ownership

		Frequency	%	Valid %	Cumulative %
Valid	Sole-Proprietorship	140	72.9	72.9	72.9
	Partnership	52	27.1	27.1	100.0
	Total	192	100.0	100.0	

4.4.4 Capital investments in SSABs

Every business requires start-up capital to start operations. And as seen from Table 4.9, most (60.4 %) of the firms investigated invested between GH10,000 and GH30,000. On the other hand, smaller percentages invested higher amounts. For example, only 15.1 % invested Gh100,000 or more; 12 % invest between GH30,000 and GH60,000; and 12.5 % between GH60,000 and GH100,000.

Table 4.9: Capital invested

		Frequency	%	Valid %	Cumulative %
Valid	10,000-30,000	116	60.4	60.4	60.4
	30,000-60,000	23	12.0	12.0	72.4
	60,000-100,000	24	12.5	12.5	84.9
	100,000+	29	15.1	15.1	100.0
	Total	192	100.0	100.0	

4.4.4 Business age

The number of years the SSABs have been in operation is examined in this section. A majority of SSABs (46.9%), as shown in Table 4.10, have been operating business for more than five years, enabling businesses to acquire more skills to run their firms successfully. According to Rahaman et al. (2021), the age of business significantly impacts business success. Furthermore, organisations in higher-performing age groups have more potential to absorb and use external information and resources, resulting in improved business success (Yoo & Young, 2018). According to Esteve-Perez et al. (2018), age in business is a major

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determinant of firm survival based on the industry life cycle. For Behrens et al. (2012), managers can gain the necessary abilities for effectively managing their businesses by accumulating years of experience in the field. Business age is one of the control factors used to moderate the impact of ME, IA, TC, and AC on SSAB performance. This chapter considers this in more depth later on.

Table 4.10: Age of the business

		Frequency	%	Valid %	Cumulative %
Valid	2 -5	90	46.9	46.9	46.9
	5 -10	89	46.4	46.4	93.2
	10-15	13	6.8	6.8	100.0
	Total	192	100.0	100.0	

4.4.5 Business technology of SSABs

Mithas et al. (2012) conducted an empirical study revealing that technology investment could hugely impact the performance of SSABs. Mohammed et al. (2019) indicate that technology is critical to the growth of long-term company performance but note that SSABs find it difficult to adapt owing to a lack of resources and other market challenges. As indicated in Table 4.11, 155 SSABs representing 80.7%, depend on indigenous technology; 33 (17.2%) rely on foreign technology, and 4 (2.1%) depend on hybrid technology. This finding indicates that 80.7% of SSABs in the Nkoranza South District of Ghana depend on indigenous technology.

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Table 4.11: Business technology

		Frequency	%	Valid %	Cumulative %
Valid	Indigenous-Technology	155	80.7	80.7	80.7
	Foreign-Technology	33	17.2	17.2	97.9
	Hybrid-Technology	4	2.1	2.1	100.0
	Total	192	100.0	100.0	

4.4.6 Categorisation of SSABs

This section examines the many types of SSAB involved in this research. Cassava processing (46.9%) remains what is projected to be the most profitable activity funded by SSABs, followed by poultry production (18.8%). The third group, cashew nuts (17.2%), was the least financed, followed by con procession (10.9%) and agrochemical and equipment (6.3%). These categories typically require long-term financing.

Table 4.12: Business activities

		Frequency	%	Valid %	Cumulative %
Valid	Cassava-processing	90	46.9	46.9	46.9
	Poultry-production	36	18.8	18.8	65.6
	Cashew-nut-production	33	17.2	17.2	82.8
	Agro-chemical-equipment	12	6.3	6.3	89.1
	Corn-processing	21	10.9	10.9	100.0
	Total	192	100.0	100.0	

4.5 CORRELATION AND INTER-CORRELATION ANALYSIS OF VARIABLES

Table 4.13 shows the correlation analysis used to determine the link independent, dependent, and control variables. The research also identifies which relationships are also substantial or not. Instead, this study aims to determine whether there is any multicollinearity. In a multiple regression model, multicollinearity occurs when two or more predictor variables are highly linked ($\alpha \geq 0.80$). According to Yu, Jiang

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and Land (2015), constructs can be linearly predicted with the non-trivial point of accuracy by multiple constructs.

The degree to which linear regression quantifies the impact of Managerial Expertise, Information Asymmetry, Transaction Cost and Access to Credit on SSAB performance is emphasised in this regard. As a result, it is crucial to determine how the variables in the conceptual model relate to one another.

According to Mukaka (2012), to determine the strength and direction that linked variables require, the correlation coefficient direction can either be positive or negative (-1 < r>+1). According to Miles and Shevlin (2001), relationships can either be perfect (r=0.8≤1.0), strong (r=0.60≤ 0.8), moderate (r=0.40≤ 0.6), weak (r=0.20≤ 0.4), or have no relationship (r=0 ≤ 0.2), but are not necessarily positive or negative. The correlative coefficient +r means positive, and –r means negative.

Employment growth and sales growth correlate positively with independent factors. Except for experience in managing people, financial literacy skills, customer service skills, accounting skills, marketing skills, information on the material sources, feedback from customers' accurate details on produce, cost of incentive packages, and cost of relevant information correlate negatively. For example, employment growth has a correlation coefficient r = 0.730 with cash collateral, r = 0.582 with Landed property; r = 0.425 with Cost of incentive packages; r = -0.086 with Accounting skills; r = 0.465 with Financial literacy skills; r = 0.139 with Permanent employees with 3 years working experience; and r = 0.110 with Accurate details on produce. Similarly, the correlation coefficient for Sales growth r = 0.392 with Product innovation experience; r = -0.115 with formal management Practices; r = 0.022 with Budgeting Skills; r = -0.080 with cost of relevant information; r = 0.300 with Requirement for accessing loan; r = 0.025 with Risk factors in the business; and r = 0.074 information on raw materials.

From the control variable aspect, the findings show that all the dependent variables positively correlate with control variables. In summary, the results show that most dependent, independent, and control variables have a weak association; hence r

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≤ 0.4. The findings revealed that employment and sales are positively connected. For example, employment has an r = 0.197 positive correlation coefficient, while sales have an r = 0.765 positive correlation coefficient. Many studies have discovered a favourable association between employment and sales when measuring the profitability of small-scale agribusinesses (Lu & Beamish, 2006; Fatoki, 2011; Blackburn et al., 2013).

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Table 4.13 Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	27	29	30	31	32	33
Pearson Correlation	Employment	1																																
	Sale	.197**	1																															
	Managers Education level	.347**	0.002	1																														
	Technology	.142*	.518**	.481**	1																													
	Business Age	.329**	.462**	.179*	.212**	1																												
	Product Innovation	.204**	.392**	.690**	.673**	0.129	1																											
	Experience in managing people	.392**	-.178*	.368**	0.125	-0.06	.147*	1																										
	Financial literacy skills	.465**	-.181*	.682**	.169*	.145*	.380**	.472**	1																									
	Formal management Practices	.436**	-0.115	.609**	.210**	.240**	.289**	.435**	.708**	1																								
	Permanent Employees with 3yrs working experience	0.139	0.072	-0.046	-0.068	-0.084	0.013	.453**	-0.065	-0.073	1																							
	Budgeting Skills	0.008	0.022	.288**	.166*	-.373**	.358**	.358**	.279**	.332**	.333**	1																						
	Customer Service Skills	.227**	-.155*	.192**	-0.08	-0.003	-0.053	.416**	.378**	.303**	.462**	.255**	1																					
	Environmental Management Skills	.260**	-.168*	.331**	-0.029	0.074	0.099	0.141	.437**	.439**	.248**	.268**	.501**	1																				
	Accounting skills	-0.086	-.171*	.641**	.205**	-0.057	.415**	0.108	.470**	.433**	-.297**	.390**	-0.015	0.036	1																			
	Marketing skills	-.441**	0.01	0.038	0.032	-.147*	.177*	0.122	-0.05	-0.038	.186**	.364**	.149*	-0.009	.220**	1																		
	Information on Produce Price	.162*	-.146*	.361**	.339**	-.175*	.480**	.204**	.417**	.190**	-0.115	0.127	-.217**	0.007	.214**	-.164*	1																	
	Information on raw material price	.190**	0.074	-.202**	0.136	.144*	-0.127	-0.002	-0.062	.225**	-0.068	-0.122	0.036	-0.021	-.382**	-.287**	0.054	1																
	Information on material source	.199**	-0.001	-.154*	0.105	.227**	-.182*	-0.062	-0.079	0.113	-.186**	-.263**	-0.071	-0.036	-.210**	-.276**	0.089	.764**	1															
	Feedback from customers	-.271**	.181*	-.809**	-.203**	0.002	-.513**	-.371**	-.764**	-.593**	0.121	-.342**	-.174*	-.333**	-.655**	-0.051	-.374**	.458**	.476**	1														
	Accurate details on product	0.11	-.163*	.518**	.304**	-.269**	.411**	.432**	.512**	.538**	0.013	.415**	.298**	.217**	.502**	.254**	.312**	-0.068	0.05	-.469**	1													
	Risk Factors in the business	.156*	0.025	0.052	0.115	0.132	-0.122	-.171*	0.078	0.117	-.249**	-.281**	0.007	.183*	-0.14	-.366**	.226**	.441**	.524**	0.13	0.049	1											
	Interest rate on loan	.301**	.542**	-.173*	.201**	.294**	0.105	-.160*	-.392**	-.180*	0.07	-.201**	-.339**	-.349**	-.322**	-.222**	-0.137	.235**	.252**	.405**	-0.117	0.037	1										
	Cost of Professional advice	.367**	.185*	.259**	-0.132	.228**	0.131	.147*	.291**	.168*	.242**	.188**	.552**	.352**	-0.044	0.053	-.354**	-.247**	-.435**	-.299**	-0.043	-.260**	-0.019	1									
	Cost Transportation	.263**	0.121	.302**	-0.016	-0.037	.329**	.210**	.422**	.228**	0.03	.238**	0.106	0.07	.254**	0.01	0.114	-.227**	-.315**	-.404**	.265**	-.307**	0.027	.415**	1								
	Stock cost from supplies	.288**	.143*	.378**	0.042	-0.022	.388**	.220**	.336**	.291**	.176*	.304**	.278**	.224**	.232**	0.049	0.007	-.330**	-.385**	-.458**	.352**	-.262**	0.042	.462**	.826**	1							
	Cost of Accounting activity outsourced	.149*	.211**	-0.079	-0.134	-0.096	0.039	0.026	0.009	-.191**	0.115	.157*	0.029	0.074	-0.133	0.036	-.207**	-.268**	-.262**	-0.062	-0.013	-.250**	0.059	.354**	.588**	.540**	1						
	Cost of Incentive Packaged	.425**	-.153*	.823**	.211**	0.083	.482**	.370**	.822**	.697**	-.207**	.275**	.234**	.370**	.635**	-0.054	.332**	-.232**	-0.14	-.882**	.583**	0.048	-.326**	.244**	.518**	.575**	.154*	1					
	Cost of relevant information	.296**	-0.08	.462**	0.022	.259**	0.116	.219**	.494**	.306**	-0.07	-0.11	.462**	.297**	.191**	0.034	-.149*	-.333**	-.270**	-.570**	.221**	-0.071	-.276**	.554**	.289**	.411**	.229**	.606**	1				
	Requirement for accessing loan	.387**	.300**	.227**	.319**	.241**	.252**	.178*	.259**	.170*	-0.01	0.069	-0.012	0.137	-0.018	-0.091	0.054	-0.097	-0.057	-.256**	0.064	-.168*	0.116	.233**	0.139	.220**	0.089	.237**	.177*	1			
	Application process	.366**	.258**	.432**	.276**	.395**	.464**	.152*	.327**	.342**	-0.131	0.105	-0.14	0.118	.273**	-0.019	.162*	-0.003	-0.03	-.383**	0.1	-.145*	0.089	.175*	.204**	.289**	0.102	.423**	.249**	.413**	1		
	Loan application to Financial institution	.161*	.216**	.297**	.216**	.320**	.250**	0.066	.223**	.369**	-.245**	0.049	-0.135	-0.01	.319**	0.089	-0.053	0.05	0.046	-.258**	.197**	-.167*	.144*	0.082	.151*	.170*	-.145*	.324**	.237**	.315**	.743**	1	
	Landed Property collateral	.582**	.153*	.545**	.253**	.177*	.355**	.249**	.475**	.416**	0.079	.194**	.146*	.342**	.213**	-0.117	.192**	-.173*	-0.001	-.436**	.352**	.201**	.142*	.264**	.158*	.230**	0.021	.478**	.300**	.373**	.255**	.228**	1	
	cash collateral	.730**	.399**	.270**	.211**	.503**	.375**	.189**	.341**	.398**	0.104	0.009	0.139	0.119	0.026	-.283**	.160*	0.118	0.11	-.198**	0.086	0.092	.358**	.295**	.176*	.305**	0.001	.287**	.151*	.387**	.480**	.267**	.466**	1

Note: The table above displays the correlation among all the constructs. The level of significant are *P<0.1, **P<0.05, ***P<0.01

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4.6 REGRESSION ANALYSIS AND HYPOTHESIS TESTING

Table 4.14 shows the results of multiple linear regression of all variables to test the different hypotheses stated in the first chapter. Four regressions were run to assess the relationship among the variables stated in the proposed model. There were two stages to the regression analysis. Model 1 was the initial stage, which entails running regressions with the three control variables (Technology, Business age, and Educational level) and each of the two dependent variables, Employment growth and Sales growth. Model 2 was the second stage, which included two regressions using the three control variables, four independent variables (Managerial expertise, Transaction coat, and Credit access), and the two dependent variables individually.

The R^2 and its adjusted values, P- values, F- value, β – values are all essential to this regression outcome. Where R^2 denotes the overall fitness of the regression model, modified R^2 values, which range from 0 to 1, also account for the variability in the dependent variables (Employment and Sales growth) caused by the independent variables. The upper the level of variance described by the ME, IA, TC, and AC, the closer the modified R^2 figures are to 1. Furthermore, fewer changes were made in the dependent variables employment growth and sales growth, because the values were closer to 0.

The R^2 values of Model 2 were examined using regression results. Employment (0.537) and sales growth (0.567) had R^2 values of 0.537 and 0.567, respectively, indicating a good model. Employment growth (0.519) and Sales growth (0.519) are the adjusted R^2 values (0.551). Accordingly, this means the entire regression model can explain 51.9 % and 55.1 % of the variability in Job growth and Sales.

When the adjusted R^2 values of Model 2 are compared to those of Model 1, it is clear that the adjusted R^2 values have changed significantly. For example, employment growth (0.199) and sales growth (0.199) are the corrected R^2 values for Model 1. (0.497). On close inspection, it is possible to observe that employment

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growth has shifted from 18.6% to 51.9 %. In the same way, sales growth has moved from 48.9% to 55.1 %. As a result, employment growth and sales growth have changed by 33.3 % and 6.2 %, respectively. These changes suggest that the independent factors account for a large portion of the variance in the dependent variables.

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Table 4.14: Multiple regression analysis of SSAB performance

Multiple regression analysis of firm characteristics and drivers of small-scale agribusiness performance																
	Employment growth								Sales growth							
	Model 1				Model 1, 2				Model 1				Model 2			
	ß	St. Err.	Sig.	VIF	ß	St. Err	Sig.	VIF	ß	St,Err.	Sig.	VIF	ß	St. Err.	Sig.	VIF
Technology	0.423	0.402	0.294	1.329	0.941	0.348	0.007	1.683	159451	15655.577	0.000	1.329	175743.234	16525.454	0.000	1.683
Managers education level	0.681	0.153	0.000	1.311	0.094	0.199	0.638	3.788	-36185	5933.586	0.000	1.311	-50211.511	9460.537	0.000	3.788
Business age	1.143	0.268	0.000	1.056	0.245	0.233	0.294	1.356	78001	10424.069	0.000	1.056	57036.722	11081.84	0.000	1.356
Managerial expertise					0.101	0.421	0.811	3.1					-34820.322	19975.473	0.083	3.1
Information asymmetry					-1.949	0.281	0.000	1.391					-7829.321	13361.972	0.559	1.391
Transaction cost					1.27	0.241	0.000	2.214					35942.124	11431.327	0.002	2.214
Access to credit					1.37	0.207	0.000	1.843					33116.152	9850.608	0.001	1.843
R^2	0.199				0.537				0.497				0.567			
Adj.R^2	0.186				0.519				0.489				0.551			
ANOVA F	15.528				30.462				62.018				34.461			
Sig. F	0.000				0.000				0.000				0.000			
N	192				192				192				192			

Note: The table below displays the unstandardised coefficient (ß), the value of the adjusted R^2, the significance levels and F change. The levels of significance are: *P<0.1, **P<0.05, ***P<0.01

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4.7 IMPACT OF FIRM CHARACTERISTICS ON SSAB PERFORMANCE

The impact of managerial expertise, information asymmetry, transaction cost, and access to credit on SSAB performance is mainly dependent on both the owner and SSAB characteristics, as well as how these resources are used according to one of the study's assumptions. Although this study considers ME, IA, TC, and AC to be essential determinants in SSAB performance, owner-managers and the organisation features each have a controlling role in its effect (Cooper et al.1994; Anderson & Eshima 2013). The firm independent variables ME, IA, TC, and AC, were used in determining the SSAB performance while managing the firm characteristics. The effect of SSAB characteristics on performance considering employment and sales growth is investigated in this study.

4.7.1 Influence of firm characteristics on employment growth

According to Model 1 in Table 4.14, business technology has P = 0.294, with β 0.432. Also, managers' level of education had P= 0.0000 with a β value of 0.681, and business age had P= 0.000, which is significant at 1%. The allotment of all constructs is continuous, with Business technology determining Employment growth by 42.3 %, Manager's levels of education by 68.1 %, and Business age by 14.3 %.

This means that firm features could strongly influence employment growth at a 95% confidence level. The R^2 is 0.199, and its adjusted value is 0.186, where Firm characteristics can explain 14.9 % of the variance in job growth, according to the modified R^2. Additionally, at the 1% level (p=0.000), the F indicator of 20.059 is statistically substantial. According to findings, firm features are more likely to impact employment growth among small-scale agriculture in Ghana's Nkoranza South District. Firm factors, such as Business Technology, Managers' education level, and Business age, as mentioned previously (Park & Bae, 2004; Miller, 2014; Blackburn et al., 2013; Udimal et al., 2017), have a substantial effect on the growth and success of small businesses. In effect, company technology, management

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education, and business age all play a role. From Table 4.14, business technology has a negative impact on employment growth since small-scale agribusinesses depend on Indigenous technology. This can be witnessed in Table 4.10, where 155 out of 192 businesses participating in the project depend on Indigenous technology.

According to Manzoor (2021), Business technology has a crucial influence on small-scale business employment growth, while Anderson and Eshima (2013) argue that the number of years firms operate dramatically impacts the firm's employment growth success. In a recent study on the rise of small businesses in emerging nations, Wang (2016) stated that younger firms performed well with the few resources available.

4.7.2 Influence of firm characteristics on sales growth

Business technology, Manager's education levels and Business age are statistically significant at the 1% level, as shown in Table 4.14 (Model 1). Thus, Business technology (p = 0.000, ß = 175743.234), Manager education (p=0.000, ß = -50211.511), and Business age (p=0.000, ß = 57036.722) were found to be significant. According to the coefficients of determination, Business technology controls sales growth by 15.94%, Managers' educational level determines sales growth by -36.18%, and business age controls sales growth by 80 %. The R^2 is 0.497, and its adjusted value is 0.489, according to Table 4.14 (Model 1). Firm features can explain 8% of the discrepancy in Sales growth, according to the adjusted R^2. The regression model's F-change is 62.018, statistically significant at the 1% level (p=0.000). This indicates that the regression model is accurate, as well as that the regression model is capable of accurately forecasting revenue growth. As a result, business characteristics play an important role in predicting sales growth among SSABs in Ghana's Nkoranza South District. Business technology has been shown to favour SSAB sales success (Rodriguez et al.,2014).

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According to Mariyono et al. (2021), the technology used by agribusiness firms in their operational activities increases sales. The level of education of the management is also linked to sales growth. Even though education plays a significant role in SSAB's success, Dumas et al. (2016) have noted that the lack of Manager's education constrains agricultural Table 4.7, the popularity of the SSAB owners who participated in the project representing 82 out of 192 businesses owners had no formal education. The effect of accumulated human capital on the performance of agribusinesses has been asserted by Udimal et al. (2017). They investigated the impact of accumulated human capital on the performance of agribusinesses. The study also reveals that managers with experience, education, and training significantly affect sales growth.

4.8 IMPACT OF SSAB DRIVERS ON PERFORMANCE

This section examined the impact of managerial expertise, information asymmetry, transaction cost, and access to credit on SSABs in the Nkoranza South District. Based on the proposed model, managerial expertise and access to credit positively affect SSAB performance, while Information asymmetry and Transaction cost negatively affect SSAB performance. The following section evaluates the hypotheses and measures the impact of Managerial expertise, Information asymmetry, Transaction cost, and Access to credit on SSAB on two principal growth areas (Employment, and Sales, respectively).

4.8.1 Managerial expertise and employment growth of SSABs

Small-scale agribusiness's success is not just determined by a company's ability to obtain credit. However, as Custodio et al. (2017) point out, organisations with managers that develop broad managerial skills throughout their careers tend to outperform their peers. The importance of Ghana's SSAB sector cannot be overstated. In Ghana's economy, the sector generates a significant number of jobs. Every year, the agriculture sector is a crucial source of employment for new employees in Ghana (Plecher, 2020; World Bank, 2017). Despite its significance,

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Ghana's SSAB sector functions in a resource-constrained (Abor & Quartey, 2010) context with a severe labour shortage. Even though other factors affect the growth of SSABs, lack of managerial skills, business technology (Adobor, 2020) and entrepreneurial failures in agribusiness have a negative impact on food security and disrupt social and economic stability (Adobor, 2020).

The study finds a positive association between Managerial expertise and Employment, even when business characteristics are considered. Managerial expertise, on the other hand, is not statistically significant (p=0.811, ß = -0.101). As a result, H1 is rejected.

Table 4.14 shows how all of the Managerial expertise variables correlate positively with Employment growth, except Accounting skills and Marketing skills, where, for: Product innovation experience r = 0.204; Experience in managing people r = 0.392, Financial literacy skills r = 0.465; Formal management practices r = 0.436; Permanent employee with 3 years working experience, r = 0.139; Budgeting skills r = 0.008; Customer services skills r = 0.227; Environmental management skills r=0.260; Accounting skills r = -0.086; and Marketing skills r = -441. Managerial expertise (ß = -0.101, p = 0.811) is also indicated by the entire regression model (Table 4.14).

Firstly, managerial expertise is not significant in predicting employment growth in the Nkoranza South District of Ghana. The SSAB increasingly face managerial challenges, as stated by researchers Hong and Wu (2021), who argue that a lack of managerial skills makes industries adopt technology such as robots, which causes employment for middle-skilled people to fall, but employment for low- and high-skilled workers to rise. Huang (2014) argues that managers with higher levels of managerial competence are in short supply and hence in high demand, making them very expensive and challenging for small businesses to hire competent managers. This prevents SSAB from having the managerial expertise to achieve business profitability and employment growth, which is one of the agricultural poverty reduction strategies that remain at a standstill. This backs up the

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regression results, which show that managerial expertise is inversely connected with employment growth in Ghana's Nkoranza South region.

Another factor inhibiting the performance of SSAB in rural areas is the lack of managers with accounting skills. Accounting skills affects SSAB performance, as confirmed by Asha (2019), who reveals that entrepreneurs' application of financial literacy to small business performance is minimal and that the use of accounting record has no impact on performance. Small-scale agribusiness entrepreneurs do not only lack accounting skills but also lack budgeting skills. As proven by Hilkens et al. (2018), entrepreneurs show a low level of interest in financial management skills. Small-scale agriculture has also seen an increasing number of environmental challenges, such as solid waste, water pollution, and air pollution (Hilkens et al., 2018), stating that managers' lack of skills in dealing with environmental issues within the sector has been a significant challenge.

Finally, SSAB executives lack technological expertise in tackling corporate expansion. The current COVID-19 epidemic has highlighted the importance of agricultural foods and e-commerce activities for many organisations, regions, and governments worldwide. According to Penalver et al. (2017), corporate social responsibility significantly impacts performance, but finding appropriate managers has become a problem. As a result, the employment of such managers in agribusinesses remains limited (Hilkens et al.,2018). According to Kassean et al. (2015), SSAB managers must be given enough entrepreneurial skills to be successful in managing their company's profit and sales, which are designed to generate employment, as confirmed by Zhang and Cain (2017). Managers with creative skills, financial literacy skills, human management skills, budgeting skills, customer environmental skills, and marketing abilities are required for small-scale agribusiness to be profitable.

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4.8.2 Information asymmetry and employment growth of SSABs

Many developing countries' agricultural commodity markets are generally inadequately combined (Banerjee and Munshi, 2004; Bardhan, 1989). Substantial costs tend to reduce competition, resulting in unproductive goods allocation across the market. Furthermore, postponement in gaining information or the misreading of second-hand information results in the underpricing of goods by agricultural producers. In addition, relying on agents for information is another cost that increases the overall cost of doing business among agricultural businesses (Mitchell, 2014).

According to Tadesse and Bahiigwa (2015), price dispersion is caused by information asymmetry, which leads to significantly varied pricing of the same products in the same market, thereby raising customer purchasing power.

Except for customer feedback, which has a negative connection, the findings of this study, after adjusting for company characteristics, demonstrate affirmative link among information asymmetry elements and employment Information on material price r = 0.190, Information on material source r = 0.199, Customer feedback r = -0.271, Accurate product details r = 0.110, Business risk factors r = 0.156) Furthermore, the results show that information asymmetry (ß = -1.949, p = 0.000). From the result, H3 is accepted. Information asymmetry is statistically significant (p=000) at the 1% level based on the complete regression model (Table 4.14). This shows a unit shift in information asymmetry, resulting in a 19.49 % decline in employment growth.

Small firms have limited access to useful information; in most cases, one side of a transaction has more material knowledge than the other (Saxton & Anker, 2013). Micheni et al. (2020) state that stronger growth potential and trust in market knowledge, as well as head of household expertise, were found to have a negative impact on pig profit inefficiency.

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According to Deichmann et al. (2016), having access to digital technologies helps small-scale farmers reduce information asymmetry. But Cui et al. (2018), Negi and Anand (2015), Hashim (2015), Khan (2015) and Narkhede et al. (2014) revealed that small businesses lack the requisite knowledge and awareness, information on quality and safety standards, demand and market information, all of which constitute severe challenges for SSAB development. Additionally, SSAB depends on the price of goods to plan for production and selling.

4.8.3 Transaction cost and employment growth of SSABs

Ghana has competitive benefits in producing all primary goods for exportation (Bates, 2005; Nutsukpo et al., 2012). However, the agricultural industry faces significant sustainability concerns. Over the years, several interventions have been made to solve the issues facing the agricultural sector (Banson et al., 2014).

Agricultural production is a complicated system (Banson et al., 2014), despite its importance to the State (Wiebe et al., 2003; Kydd et al., 2004; Eifert et al., 2008), but the sector faces many challenges, such as high transaction costs, poor product quality, and low productivity. The transaction costs of doing business in emerging and developing economies are high (Marquis and Raynard, 2015; Meyer et al., 2009). However, as Khoury and Prasad (2016) point out, the voids encountered by other corporate actors, both domestic and international, may be distinct and more complex.

Various scholars (Michaelowa & Jotzo, 2005; Tate, Ellram, & Dooley, 2014) have claimed that high transaction costs significantly impact small-scale business finance. Based on this outcome, transaction cost constructs (interest on loan, r = 0.301; cost of professional advice, r = 0.367; cost of transportation, r = 0.263; cost of stock from supplies, r = 0.288; cost of outsourcing accounting activity, r = 0.149; cost of incentive packaged, r = 0.425; cost of relevant information, r = 0.296) correlate positively with employment growth. Furthermore, the findings in Table 4.14 show that transaction costs (ß =1.27, p=0.000) are statically significant at 1

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%. As a result, H3 is accepted. This results in a unit rise in transaction costs and an increase in employment costs by 12.7 %. In Ghana, transaction costs are statistically significant in predicting employment growth at 1 %. According to Agburu et al. (2017), transaction costs such as outsourcing accounting functions like financial reporting and tax processing have a substantial impact on organisational performance and, as a result, on employment growth. Even while the relevance of the SSAB cannot be overstated, small-scale businesses have substantial transaction costs (Wiebe et al., 2003; Kydd et al., 2004; Eifert et al., 2008). According to Musso and Weare (2019), increasing the intensity of employee incentive packages may boost organisational performance but at a higher cost.

According to Maiga et al. (2020), youth involvement in agricultural activities is relatively low, and the high cost of education in acquiring skills has become a barrier to the agricultural sector. Ghana's high borrowing costs make initial investments in agricultural activities (irrigation technologies) prohibitively expensive (Awunyo-Vitor et al., 2014). This is confirmed by previous research, which suggests that smallholder farmers in northern Ghana are credit-strapped (Balana et al., 2016). However, according to Balana et al. (2019), the high investment cost limits agricultural operations such as solar-powered water pumps from growing high-value cash crops. Finally, a higher interest rate raises the cost of a loan and, as a result, degrades loan repayment performance (Afolabi, 2010). In summary, interest on loans, the cost of professional advice, the cost of transportation, the cost of stock from supplies, the cost of outsourcing accounting activity, the cost of incentive packaging, and the cost of relevant information are accepted.

4.8.4 Access to credit and employment growth of SSABs

Finance plays a significant role in the developmental projects of small-scale businesses, where, as a result, they serve as resources for job creation. Ayyagari et al. (2021) examine the impact of access to finance on job development in over 780,000 organisations across twenty-two developing countries, finding that

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increased access to finance leads to higher employment growth, particularly among micro, small, and medium businesses. Small-scale businesses with access to formal financing create more jobs than those without, according to Brixiová, Kangoye, and Yogo (2020), with employment in firms with cheaper and larger loans rising the fastest. Employment in the SSAB has become a significant problem due to a lack of funds.

Examining the result from the correlation analysis demonstrates a favourable relationship between Access to credit and Employment growth, as noted below. Access to credit constructs such as Loan eligibility, r = 0.387, loan application process, r = 0.366; loan application to financial institution, r = 0.161; landed property collateral, r = 0.582; and cash collateral, r = 0.730, all correlate with employment growth. Access to credit (ß =0.41, p=0.000) is statistically significant at 1% and correlates favourably with employment growth, according to the full regression model (Table 4.14). As a result, H4 is accepted.

According to Bashir, Mehmood and Hassan (2010), agricultural finance can help farmers improve their managerial efficiency and allocate resources. Access to credit by 1 unit promotes employment growth by 4.1 %. Access to credit increases self-employment (Gutierrez & Jaume, 2021) and also serves as an economic shock that significantly impacts formal employment (Menon & Meulen, 2011). Even with minor loans to buy seeds, fertilizers, and pesticides due to insufficient collateral, loans to purchase tractors, tube wells, or agricultural gear prove beyond their reach (Hussain & Thapa, 2012).

Farmers' access to agricultural finance is influenced by socioeconomic factors such as educational experiences, farm skills, total land holdings, income, and family size (Kuwornu et al., 2018). Micro-credit, micro-savings, and training contribute to small business growth (Sifunjo & Mwewa, 2014). In summary, the requirements for obtaining loans, the loan application process, submitting a loan application to a financial institution, landed property collateral, and cash collateral is all critical in securing credit from any financial institution in Ghana.

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4.8.5 Managerial expertise and sales growth of SSABs

Skills constitute a crucial component in organisational growth (Zarook et al., 2013). Additionally, researchers claim that no organisation is a specialist in any ability but that it requires a diverse set of skills to gain a better grip on revenue-generating jobs (Shabbir et al., 2016). Managerial talent for small businesses affects several growth aspects (Fatoki, 2011; Rambe & Makhalemele, 2015; Raven & Le, 2015). Small agribusinesses lack the managerial ability (Astero & Yong, 2016) required to run successfully, and they need to be empowered with managerial skills that will improve their performance. However, according to Asha (2019), entrepreneurs' financial literacy adaption to small business performance is low, and the use of accounting records has no bearing on their success rate.

The correlation results presented in Table 4.13 reveal that all managerial expertise factors correlate favourably with sales growth, except for Experience in managing people, Financial literacy skills, Formal management practices, Customer services skills, and Accounting skills.

The correlation result revealed that the Product innovation experience of managers has a positive correlation with Sales growth at r = 0.392, while Experience in managing people correlate negatively with Sales growth at r = -0.178. Financial literacy skills possessed by managers also correlate negatively with Sales growth at r = -0.181. Formal management practices of the organisation correlate negatively with Sales growth at r = -0.115; Permanent employees with three years of working experience positively correlate with Sales growth at r = 0.072, and budgeting skills correlate positively with Sales growth at r = 0.022. Customer services skills negatively correlate with Sales growth at r = -0.155; Environmental management skills correlate negatively with sales growth at r = -0.168; Manager accounting skills correlate negatively with sales growth at r = -0.171, and finally, Marketing skills of managers correlate with sales growth at r=0.010). In addition, the findings of the entire regression model (Table 4.14) show management expertise statistically significant at 10% (ß =-34820.322, p=0.083). As a result, H1 is acceptable.

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Sales growth is reduced by 34.82 % for every unit fall in managerial expertise. Kunene (2009) states that an organisation's management requires skills to run operations and make strategic decisions that affect firm performance. Business skills, on the other hand, are essential for articulating resources efficiently, business plans, operations, target and objective achievement, the ability to develop resource utilisation plans, and making connections between internal and outside funds (Afolabi and Macheke, 2012; Kunene, 2009a; Ladzani and Van Vuuren, 2002). Previous research has shown, however, that a lack of business skills has hampered small enterprises' ability to perform better (Hashim, 2015).

Marketing's influence at the strategic level of a company is declining, according to academics. According to Malachy and Ibrahim (2015), inadequate managerial abilities are factors militating against SSAB performance. Small and medium-sized businesses are driven to look for new ways to develop and preserve a competitive advantage, such as product innovation, which significantly impacts corporate performance (Prajogo, 2017). Despite SME flexibility and capacity to respond quickly to market needs, larger businesses have a higher proclivity for product innovation than smaller businesses (Fossas et al., 2015).

4.8.6 Information asymmetry and sales growth of SSABs

Information plays a significant role in SSAB performance, as stated by Huo and Zhang (2021). Information significantly promotes supplier and customer system integration and enhances financial performance through operational performance. However, only a few parties to a transaction have more tangible knowledge than others (Saxton & Anker, 2013). According to Marwala and Hurwitz (2017), knowledge asymmetry is a significant issue because it can lead to moral hazard and adverse selection when individuals with inadequate information make weaker deal decisions due to a lack of symmetrical information. According to Kuniyoshi and Tsuruta (2018), information asymmetry causes many inconsistencies between borrowers and lenders, making loans inaccessible for small businesses and reducing their growth rates. For Song et al. (2020), the information asymmetry

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between small businesses and lenders may affect financing decisions and productivity.

Additionally, financial and human resources are negatively associated with young firms' sale improvement (De Jong et al., 2020). From the result, information on production price, material source, and accurate details on product correlate negatively with sales growth.

As seen in Table 4.13, information the following correlations exist. Firstly, information on produce price correlates negatively with Sales growth at r = -0146. Secondly, information on material price correlates positively with sales growth at r = 0.074. Thirdly, information on material sources for production also correlates negatively with sales growth at r = -0.001. Feedback from customers for decision-making by managers also improves product quality, correlating positively with sales growth at r = 0.181. Accurate details on products also correlate negatively at r = -0.163. And Risk factors associated with the business correlate positively with sales growth at r=0.025).

The regression model (Table 4.14) show information asymmetry (ß =-78.29., p=0.559). Therefore, from the result, H2 is rejected. This indicates that a unit decrease in information asymmetry will decrease sales growth by 78.29 %. According to Ahmad et al. (2021), information asymmetry has a negative effect on underperforming firms whose financing decisions were not well planned.

Asymmetric information is a crucial predictor of security issue decisions (Sony & Bhaduri, 2021). Equity issues are limited and are only executed by firms with a smaller knowledge asymmetry, which supports the premise of the information-based model. According to Kim et al. (2021), firms with no fund-raising capacity to help projects due to low stock liquidity and high systematic risk succeed due to asymmetric information. Furthermore, relying on traders or agents increases the potential for rent-seeking, raising the cost of doing business for agricultural labourers (Mitchell, 2014).

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4.8.7 Transaction cost and sales growth of SSABs

This study found that when company characteristics are considered, they demonstrate a positive association between Transaction constructs and Sales growth but not between Incentive packages and the Cost of relevant information.

As observed from Table 4.13, Interest on loans demanded by financial institutions positively correlates with Sales growth at r = 0.542. Additionally, the cost of professional advice, such as accounting and tax management, correlates positively with sales growth at r = 0.185. The following correlations are also evident. The cost of transportation of raw materials and finished goods positively correlates with sales growth at r = 0.121. Firstly, the Cost of stock from supplies/raw materials for production correlates positively with Sales growth at r = 0.143. Secondly, the Cost of outsourcing accounting activity for tax and managerial reporting correlates positively with Sales growth at r = 0.211. Third, the Cost of incentive packages to boost workers' performance correlates negatively with Sales growth at r = -0.153. And the cost of accessing relevant information for production correlates negatively with sales growth at r = -0.080.

Furthermore, the complete regression model (Table 4.14) reveals that transaction cost H3 is acceptable at a significant level of 1% (ß = 35942.152, p=0.002). From the regression, a change in transaction cost improves sales growth by 35.94 %. All H3 content is accepted, except the cost of the incentive packaging and the cost of relevant information. Due to high transaction costs of transportation, high-interest rate, professional skills, the cost of stocks, accounting activities (tax processing and financial reporting), incentive packages, and the cost of other relevant information, most SSABs in Ghana, especially in the rural areas, are likely to incur high transaction costs.

According to Liam (2021), for small and medium-sized firms (SMEs) the world over, high transaction costs have become a significant roadblock, and SSAB is not an exception (Kabir & Radulovic, 2019). It is challenging for SSAB to get credit from any financial institution to transact without collateral, complicated procedures, and

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higher interest rates (Kabir & Radulovic, 2019). Due to much higher rates, most rely on relatives and neighbours against higher interest rates. Abiodun et al. (2018) have stated that even though small-scale agribusinesses require enough capital to foster sustainable agricultural development and rural living, high-interest rates are demanded to secure credit from financial institutions, thereby affecting sales growth.

Gichuki and Trimba (2014) investigated the difficulties small businesses have in gaining access to capital. Legal fees, taxation fees, inflation, and negotiation fees all demonstrated the increased cost of getting and managing loans. According to Madhushree et al. (2019), Small-scale agribusinesses seeking valuable information to operate and expand the industry pay higher fees to acquire such information.

Most small-scale agricultural business owners are habituated to depending on their own expertise and skills, which often results in a decline in overall efficiency. Simultaneously, even for small enterprises, frequent changes in accounting and reporting regulations necessitate close concentration and regular monitoring (Mishina et al., 2020). Outsourcing is one of the stages of successful activity, which includes innovation, for small agro-industrial firms. Any new effort implies several dangers (Mishina et al., 2020). According to Nguyen (2019), selling costs, such as transportation, materials, and equipment, negatively impact sales growth. Transportation is one of the most important operations in an agribusiness's value chain. Small-scale agribusinesses can handle transportation independently if they have the necessary equipment and trained employees or outsource this service. According to research, outsourcing the majority of distribution tasks, including transportation, to other specialised enterprises raises what are already high prices. Steven (2016) reports that transportation expenses total logistics costs, indicating a cause for reducing costs.

In summary, interest on loans, the cost of professional advice, the cost of transportation, the cost of stock from supplies, and the cost of outsourcing accounting activities have significantly influenced sales. At the same time, the cost

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of incentive packaging and relevant information does not significantly influence on sales growth of SSABs.

4.8.8 Access to credit and sales growth of SSABs

Affordability of finance is essential for agriculture's long-term viability. Small-scale Agribusiness (Moahid & Maharjan, 2020) acquire finance from various public and private sources for their agricultural practices. Agribusiness has, over some years, been facing financing challenges, making it difficult for the sector's growth to eliminate poverty and provide entrepreneurial businesses to the youth, especially those involved in SSAB. It is essential to support SSABs with the requisite financial support for their operations.

Table 4.13 revealed that constructs correlate positively with SSABs' performance in Ghana. As observed in Table 4.14, the requirement for accessing loans from financial institutions positively correlates with sales growth at r=0.300. Additionally, the loan application process for accessing credit correlates positively with growth at r = 0.258. On the other hand, loan applications to financial institutions positively correlate with sales growth at r = 0.216. Landed property collateral demanded by financial institutions for granting loans correlates positively with sales growth at r = 0.153. And finally, cash collateral such as deposits required by financing institutions, correlates positively with sales growth at r = 0.399.

According to the full regression model (Table 4.14), access to credit (ß =33116.152, p=0.001), H4 is statistically significant at 1% and accepted. This indicates an increase in the number of credit access units, increasing sales growth by 33.11 %. The general assumption is that SSABs with access to credit (Aghion et al., 2018) make it easier for managers to innovate, increase sales growth, and support the performance of SSABs while minimising the externalities of riskier investments. SSAB perform by lowering the opportunity costs of riskier projects (Cheong et al., 2020).

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One major impediment to the improvement of SSAB sector of Ghana has remained the expense of acquiring financial resources. The formal sector, which is mostly comprised of medium-small businesses, has been largely ignored by the official financial sector, making obtaining entrepreneurial funding extremely difficult and costly for MSE owners (Dzansi & Atiase, 2014). According to Arthur (2015), small-scale agribusinesses have difficulties obtaining credit, especially when fulfilling financial requirements. Getting credit is more complicated for SSABs running in rural areas, where numerous microfinance companies do not exist.

Tendai and Ellen (2018) show that an absence of collateral security, weak business planning, a lack of education, and an absence of cash deposits are significant barriers to small business owners obtaining financing. According to Ndinda and Gilau (2018), small firms cannot get funding from financial institutions because they cannot meet capital requirements. As Evans and Quarshie (2021) point out, banks and financial institutions rely on exorbitant security, guarantors, huge savings, and high-interest rates for agricultural loans, which delay operations.

Financial institutions would generally expect some form of collateral in exchange for a loan to offer the required credit; as a result, landed property is in high demand (Amoyea et al., 2014). Furthermore, according to Ankrah et al. (2019), SSABs that are credit constricted have lower intensity of involvement in agricultural production than irregular SSABs, due to burdensome lending application procedures and loan cash management time (Ullah, 2019). In conclusion, requirements for accessing loans, the loan application process, loan application to a financial institution, landed property collateral, and cash collateral all impact on sales growth of SSABs.

4.9 CHAPTER SUMMARY

This chapter has discussed quantitative study conclusions seeking to determine the influence of managerial expertise, information asymmetry, transaction cost, and access to credit on small-scale agribusiness performance (employment growth and sales growth).

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The goal was to comprehensively understand the nature and quality of small-scale agricultural performance in Ghana's Nkoranza South District. The initial portion of the discussion entailed using regression analysis to examine the attributes of these firms (technology, manager's education level, business age). This assessment has been helpful, particularly in terms of how all the traits affect the performance of small-scale agribusinesses.

The results demonstrated that firm features impact the performance of small-scale agribusinesses. Second, the chapter examined the effects of managerial expertise, information asymmetry, transaction cost, and access to credit on employment and sales growth. The discussion confirmed what we already knew, namely that managerial expertise negatively impacted employment growth, information asymmetry and transaction cost, and access to credit significantly impacted employment growth. Additionally, evidence shows that managerial expertise and information asymmetry negatively impacted sales growth, while transaction cost and access to credit significantly impacted sales growth.

Finally, four regression equations have been created, grounded on the regression models and discoveries stipulated in the literature, to satisfy the hypothesis specified in Chapter 1 and Chapter 4. The findings and the argument that followed indicated that the independent variables in this research were managerial expertise, information asymmetry, transaction cost, and access to credit in Ghana's Nkoranza South District, which are essential in forecasting the employment and sales growth of small-scale agribusiness.

In conclusion, the quantitative findings supported the proposed conceptual framework for the effects of managerial expertise, information asymmetry, transaction cost, and access to credit on small-scale agribusiness performance in the Nkoranza South District of Ghana.

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CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This research examined the effects of managerial expertise, information asymmetry, transaction cost, and access to credit on small-scale agribusiness zones of employment growth and sales growth in Ghana's Bono East Region's Nkoranza South District. The sampled SSABs from Ghana's Nkoranza South District were investigated utilising a quantitative study approach. The RBV theory underpinned the theoretical assumptions of the study. In August 2021, 200 SSABs in Ghana's Nkoranza South District were surveyed, and 192 SSABs were eventually involved in the study, resulting in a response rate of 96 %.

5.2 SUMMARY OF STUDY CONCLUSIONS

This segment summarises the study conclusions presented in the quantitative data analysis chapters. The first chapter provided an overview of the study, including the background to the topic under examination, the problem statement, the goal and objectives, the hypotheses investigated, a synopsis of the research methodology, the ethical considerations addressed in the research, and chapter demarcations. Theorising is the topic of Chapter Two, while research methods focus on Chapter Three. The findings provided in Chapter Four are quantitative measures made on eight hypotheses to determine how the data obtained on the effects of ME, IA, TC, and AC on SSAB performance support the hypotheses.

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5.3. DRIVERS OF SSAB PERFORMANCE

The study's primary goal is to investigate the impact of managerial expertise, information asymmetry, transaction cost, and access to credit on SSABs' performance in the Nkoranza South District in the Bono East region of Ghana. The research revealed that, after investigating and analysing the data contained within, managerial expertise, information asymmetry, transaction cost, and access to credit all significantly affect small-scale agribusiness performance at the 1% significant level (employment growth p=000 and Sale growth p=000). Regarding the individual's variables impact of managerial expertise, information asymmetry, transaction cost, and access to credit, Table 5.1 reports the analysis for all variables at various p values. Six hypotheses are supported, whereas two are not.

Table 5. 1: Hypothesis testing result

	Hypothesis	**Significant**	**Result**
H1a	Managerial expertise is positively related to employment growth of SSAB performance	81%	Not-Supported
H1b	Managerial expertise is positively related to sale growth of SSAB's performance	8%	Supported
H2a	Information asymmetry is negatively related to employment growth of SSAB's performance	1%	Supported
H2b	Information asymmetry is negatively related to sales growth of SSAB's performance	55%	Not- Supported
H3a	Transaction cost is negatively related to employment growth of SSAB's performance	1%	Supported
H3b	Transaction cost is negatively related to sales growth of SSAB's performance	1%	Supported
H4a	Access to credit is positively related to employment growth of SSAB's performance	1%	Supported
H4b	Access to credit is positively related to employment growth of SSAB's performance	1%	Supported

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Managerial expertise, information asymmetry, transaction cost, and access to credit may all affect employment by 53.7 % (R^2 = 0.537) and sales by 56.7 % (R^2 = 0.567) when firm characteristics (business technology, manager's education, and business age) are adjusted for.

5.4. IMPLICATION FOR POLICY, PRACTICE AND THEORY

Given the significance of small-scale agribusiness in socio-economic development and poverty reduction, the study's main aim is to investigate the impact of drivers on SSAB performance. Considering the importance of the study to both agribusiness owners and the researcher, the following recommendations for policy, practice, and theory are suggested.

5.4.1 Implication for policy

The research showed that most (over 53%) owner-managers possess no formal education. Moreover, the same percentage do not have adequate managerial skills. This situation is an indication that current policies may not be working. Therefore, appropriate government entities, such as ministries and departments responsible for trade and development, need to develop additional educational policies targeting owners' and managers' skills. In doing so, particular emphasis needs to be placed on skills such as product innovation, financial literacy, budgeting, customer service, accounting, marketing, and awareness of the importance of small-scale agribusiness in the industry. This approach will maintain interest while equipping individuals with the necessary ability to run a successful business, enhancing their chances of founding or managing a company within the small-scale agribusiness that will perform well. In addition, agribusiness people must be knowledgeable of the interconnected areas of the economy that collaborate to provide goods and services to consumers worldwide, therein contributing to the elimination of poverty.

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5.4.2 Implication for practice

To foster the success of SSAB, industry stakeholders such as Chambers for agribusiness of Ghana, banks, governments, authorities, and SSAB partnerships must play a more significant role. Greater comprehensive disclosures on trends in the industry, as well as the more open collaborations amongst SSAB managers and market potential, also need to be expanded.

Furthermore, there is a need for Government and private collaboration to create local quality specifications that specify the conditions that ought to be met before goods and services can be produced. This approach ensures that the market is provided with high-quality products and services, with sufficient and accurate details always available to the consumer.

Additionally, the Government must pave the way for a database system and approve funds for research and development establishments within the district and municipalities in the local areas where most small-scale agribusinesses are established. This service enables SSABs to track available information on raw materials, risk factors associated with the products, performance, and customer feedback to enhance customer experience (via, for example, newsletters and business emails) and to make the customer aware of unique offers or sell alternative products.

Finally, managers and owners of SSABs play an essential role as well. As evidenced by the results, they have no formal education and experience, which does not give them an advantage in a competitive market. As a result, managers are advised to use organisational change while addressing managerial issues, information asymmetry, high cost of the transaction, and financial challenges, while addressing issues of resource management within the organisation. As these factors were observed to control managerial skills completely, they should also contain educating subordinate staff with enough knowledge and connecting their objectives with those of the organisation. As a result, management creates an

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environment where resources are wisely allocated to increase profitability, enhancing their financial planning abilities.

5.4.3 Implication for theory

The study applied the resource-based view theory in SSAB performance, which considers the effective use of managerial skills, and the information needed strategies in cost reduction and finance for growth in achieving competitive advantage. The findings show that most of the resource's managerial skills, information, and strategies for reducing cost and credit are not correctly applied. Most owners who have acquired the skills remain lacking in application. There is a need to examine the applicability of the resources acquired on the SSAB for growth.

5.5 CONSTRAINTS AND SUGGESTION FOR FURTHER STUDY

The sector of small-scale agribusiness is still constrained, even though essential for economic development, and further research is recommended.

5.5.1 Study constraints

The application or generalizability of this research is bound by a few constraints. To begin with, the study was limited to the Nkoranza South District of Ghana, which, as evidenced, might have a distinct SME environment from other Ghanaian SSAB markets. As a result, careful extrapolation of the conclusions beyond the Nkoranza South District SSAB sector should be done. However, the study paired the data with previous studies focusing on different markets to enhance the conclusions' application and scope. Second, the sample size employed was limited. This might affect its not representativity of the entirety of the Ghanaian SSAB context. This constraint was mitigated by using data from SSABs from all segments of the economy. Finally, concentrating solely on quantitative data, the research might be criticised by those inclined towards the interpretivist research

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philosophy for failing to provide more detailed information on the causes of observed differences. But that is the essence of positivism which emphasises generalizability over detail.

5.5.2 Suggestion for further study

Small-scale businesses continue to confront significant managerial skills, information asymmetry, high transaction costs, and credit issues, and further research is urged to continue presenting empirical evidence in this area. Furthermore, it would be beneficial to find and interview experts and managers from top-performing SMEs to learn how they overcome the abovementioned concerns. Such research can yield valuable qualitative findings that can be used to determine benchmarks for other SSABs. A future study can also be undertaken on a larger scale by involving SSABs in all the regions and districts of Ghana.

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APPENDICES

Appendix 1: Quantitative Questionnaire for Small Scale Agribusinesses in Nkoranza South District in Bono East Region Ghana.

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SECTION C : DRIVERS OF AGRIBUSINESS PERFORMANCE

Managerial expertise

14. How would you agree to the following regarding Managerial Expertise as driver of agribusiness SME performance by rating on a scale between 1 and 5, where 1 = Strongly Disagree, 3 = Neutral, and 5 = Strongly Agree ?

Managerial Expertise	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
14.a. I have enough experience in product innovation.	[1]	[2]	[3]	[4]	[5]
14.b. I have enough competency in managing people.	[1]	[2]	[3]	[4]	[5]
14.c. I have good financial literacy skills.	[1]	[2]	[3]	[4]	[5]
14.d. I depend on formal management practices.	[1]	[2]	[3]	[4]	[5]
14.e. I have permanent employees that have at leat 3 years working experience.	[1]	[2]	[3]	[4]	[5]
14.f. I have budgeting skills.	[1]	[2]	[3]	[4]	[5]
14.g. I have customer service skills.	[1]	[2]	[3]	[4]	[5]
14.h. I have environmental management skills.	[1]	[2]	[3]	[4]	[5]
14.i. I have skills in accounting.	[1]	[2]	[3]	[4]	[5]
14.j. I have knowledge in marketing products.	[1]	[2]	[3]	[4]	[5]

Information Asymmetry

15. How would you agree to the following regarding Information Asymmetry as driver of agribusiness SME performance

Information Asymmetry	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
15.a. I have available information on produce prices.	[1]	[2]	[3]	[4]	[5]
15.b. I have available information on price of raw materials.	[1]	[2]	[3]	[4]	[5]
15.c. I have available information on source of raw materials.	[1]	[2]	[3]	[4]	[5]
15.d. I get feedback from customers on services rendered.	[1]	[2]	[3]	[4]	[5]
15.e. I provide accurate information on products.	[1]	[2]	[3]	[4]	[5]
15.f. I have infomaton on risk factors in my business.	[1]	[2]	[3]	[4]	[5]

Transaction Cost

16. How would you agree to the following regarding transaction cost as driver of agribusiness SME performance by rating on a scale between 1 and 5, where 1 = Strongly Disagree, 3 = Neutral, and 5 = Strongly Agree ?

Transaction cost	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
16.a. I pay high interest rate on loan granted.	[1]	[2]	[3]	[4]	[5]
16. b. I pay high cost to seek proffessional advice.	[1]	[2]	[3]	[4]	[5]
16.c. It cost me high to transport my produce to the market.	[1]	[2]	[3]	[4]	[5]
16.d. It cost me high to get stock from my supplies.	[1]	[2]	[3]	[4]	[5]
16. e. It cost me high to outsourced accounting activities (Financial reporting and Tax processing).	[1]	[2]	[3]	[4]	[5]
16. f. It cost me high to provide incentives package to improve organisation growth.	[1]	[2]	[3]	[4]	[5]
16.g. It cost me high to have access to relevant information.	[1]	[2]	[3]	[4]	[5]

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Access to Credit

17. How would you agree to the following regarding Access of Credit as driver of agribusiness SME performance by rating on a scale between 1 and 5, where 1 = Strongly Disagree, 3 = Neutral, and 5 = Strongly Agree ?

Access of credit	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
17.a. I understand the requirements for accessing the loan.	[1]	[2]	[3]	[4]	[5]
17.b.The application processes was not cumbersome to me.	[1]	[2]	[3]	[4]	[5]
17.c.The interest charged on the loan is affordable to me.	[1]	[2]	[3]	[4]	[5]
17.d. I was requested to provide landed property as collateral for the loan.	[1]	[2]	[3]	[4]	[5]
17.e. I was requested to provide a cash collateral for the loan.	[1]	[2]	[3]	[4]	[5]

SECTION D: AGRIBUSINESS SME PERFORMANCE

18. Indicate in the table below the number and type of job created between 2016 and 2020

Employment Growth	2016	2017	2018	2019	2020
18.a.Number of full- time skilled employees.					
18.b.Number of part- time skilled employees.					
18.b.Number of full- time unskilled employees.					
18.b.Number of part- time unskilled employees.					

19. Indicate in the table below the sales revenue between 2016 and 2020

Sales Revenue	2016	2017	2018	2019	2020
	GH¢	GH¢	GH¢	GH¢	GH¢
19.Annual Sales Revenue.					

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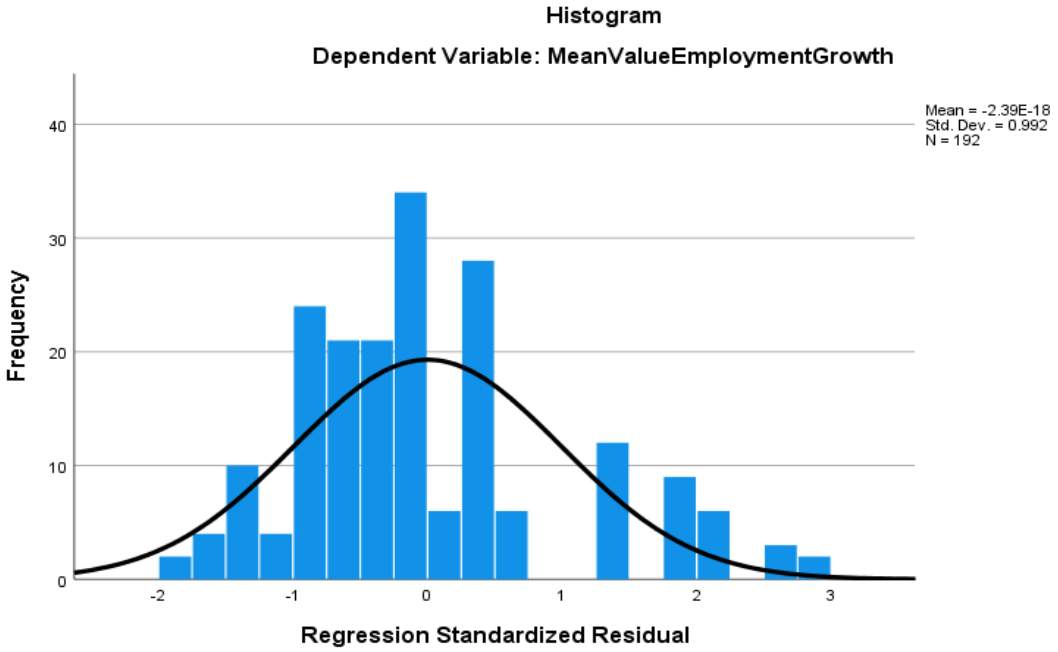
Appendix 2: Model Summaries and Charts

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.446[a]	.199	.186	2.21485	.199	15.528	3	188	.000	.422

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	228.526	3	76.175	15.528	.000[b]
	Residual	922.244	188	4.906		
	Total	1150.770	191			



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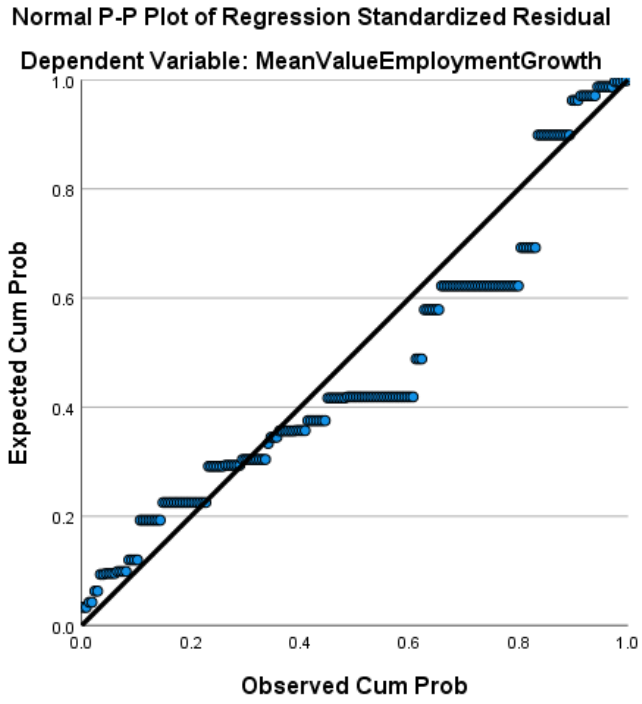

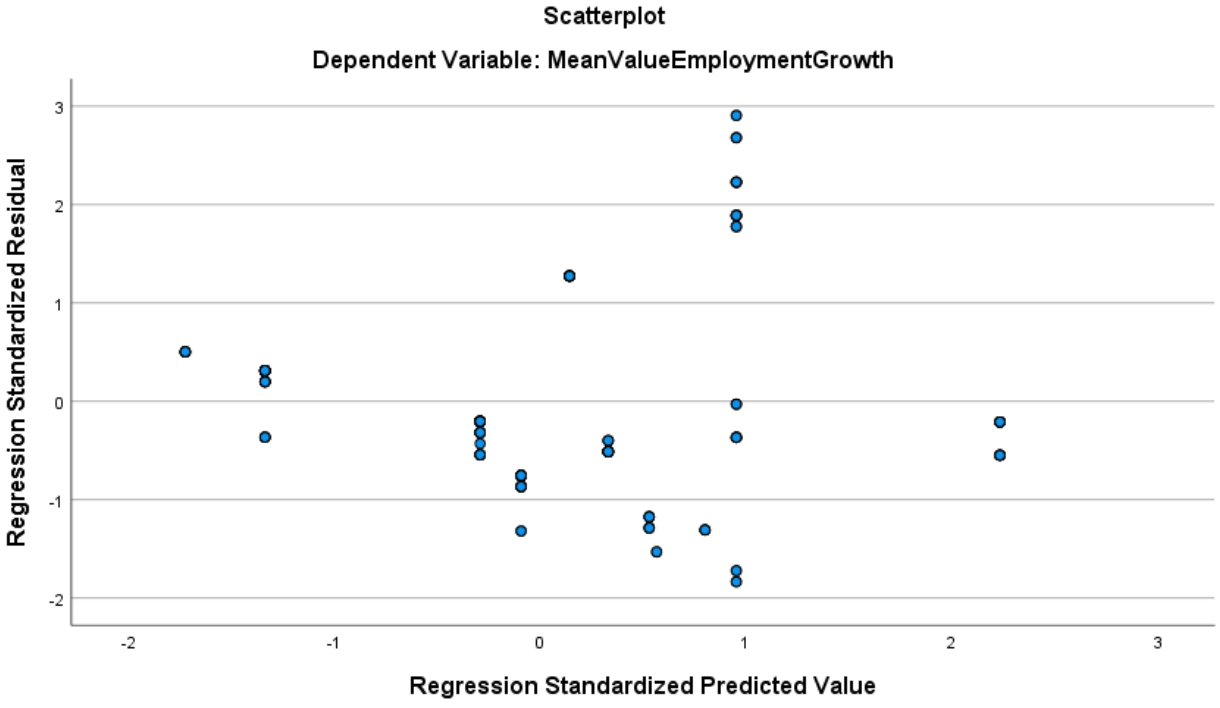

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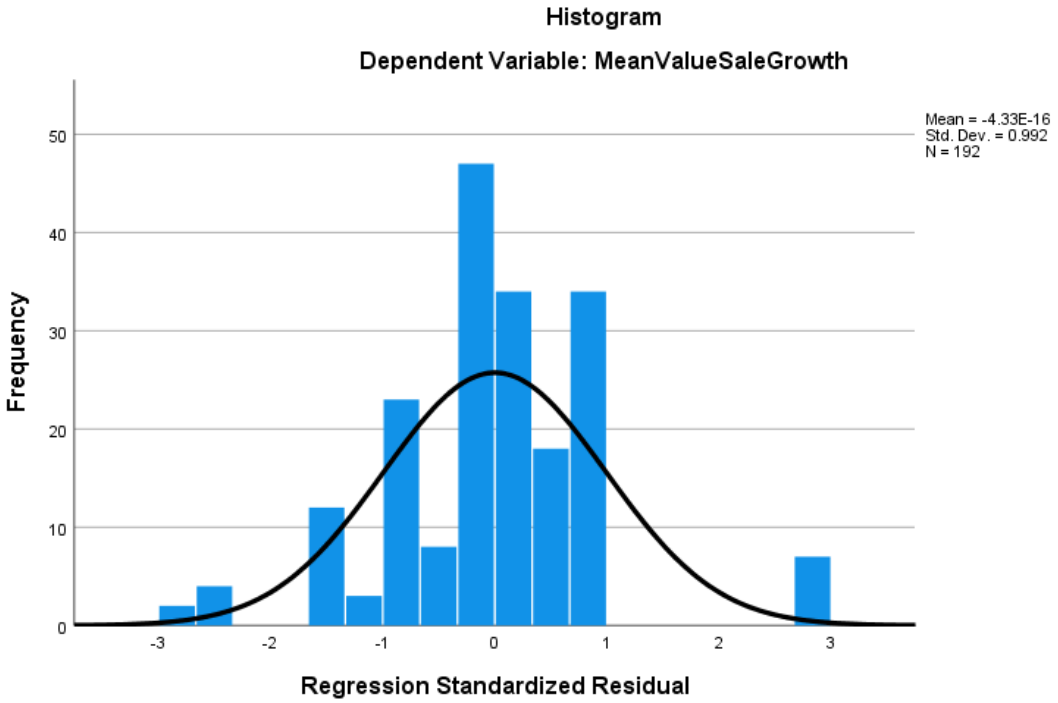
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.705[a]	.497	.489	86156.65542	.497	62.018	3	188	.000	.803

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1381083691832.736	3	460361230610.912	62.018	.000[b]
	Residual	1395518223404.827	188	7422969273.430		
	Total	2776601915237.563	191			



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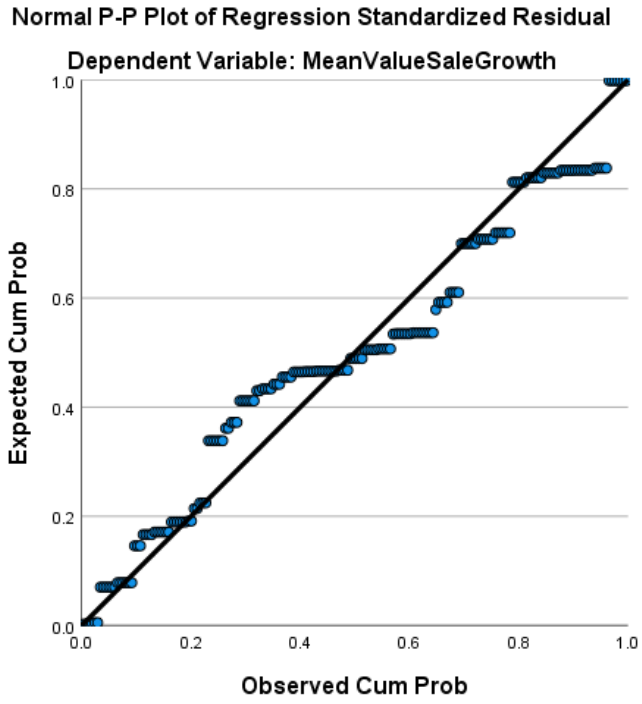

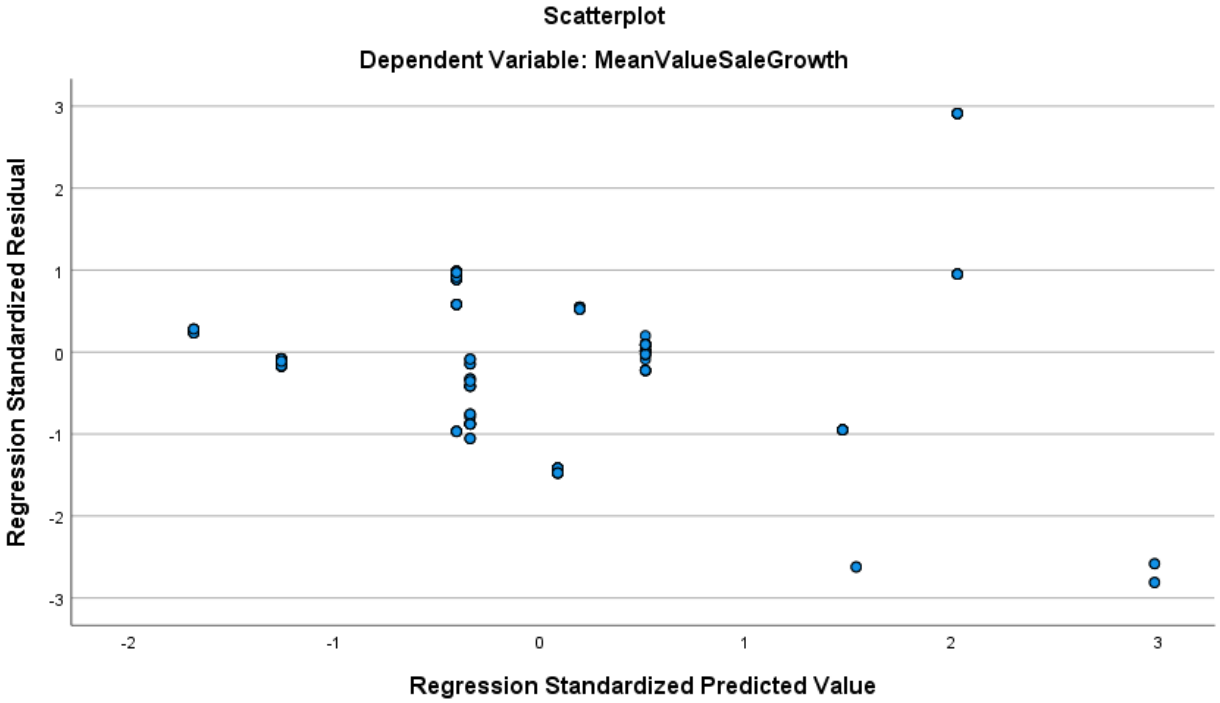

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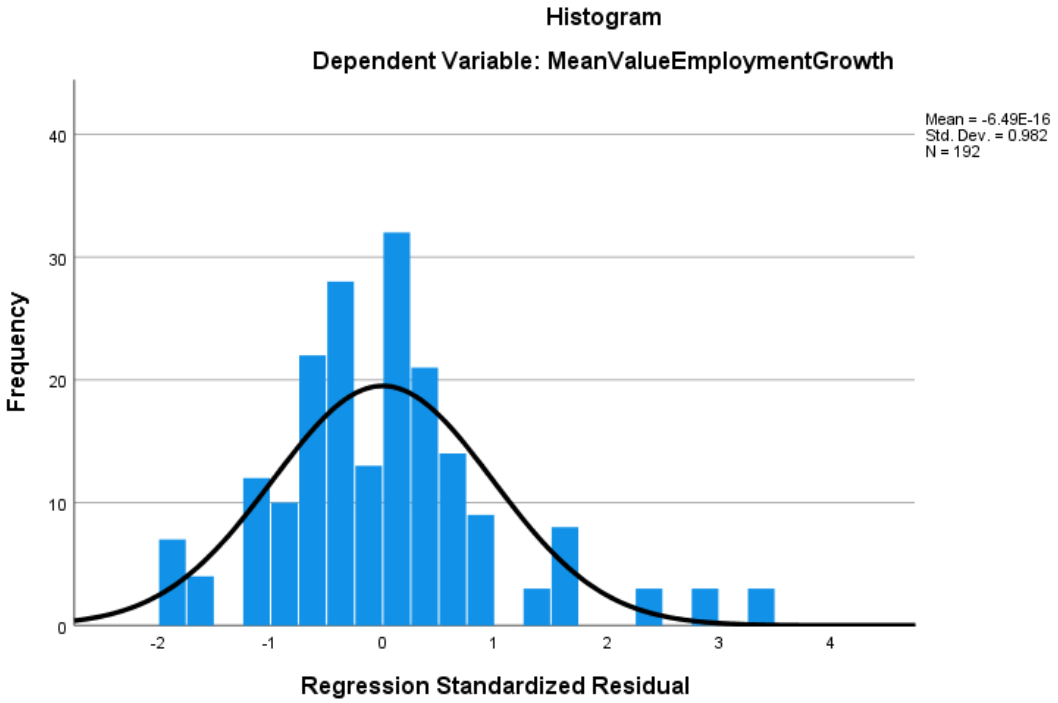
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.733[a]	.537	.519	1.70204	.537	30.462	7	184	.000	1.048

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	617.730	7	88.247	30.462	.000[b]
	Residual	533.040	184	2.897		
	Total	1150.770	191			



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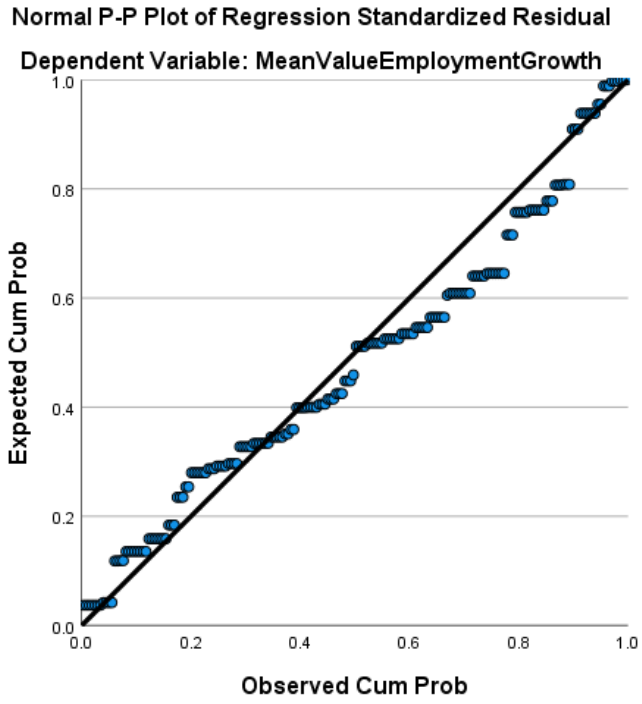

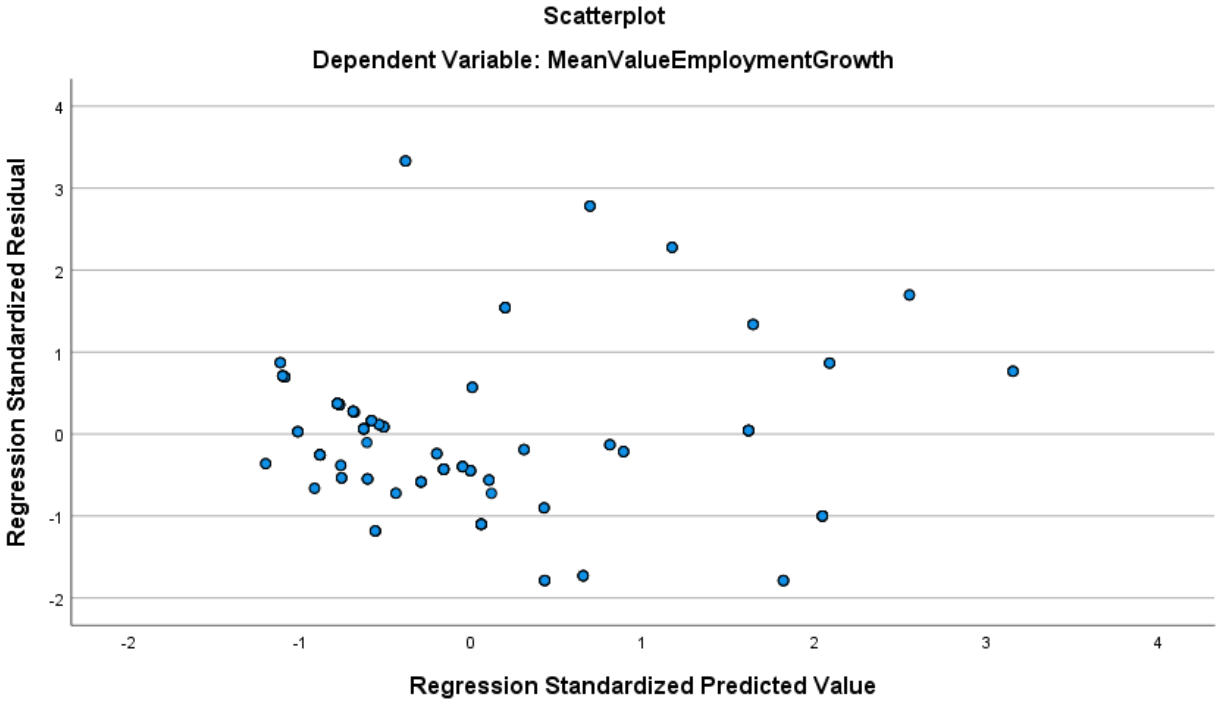

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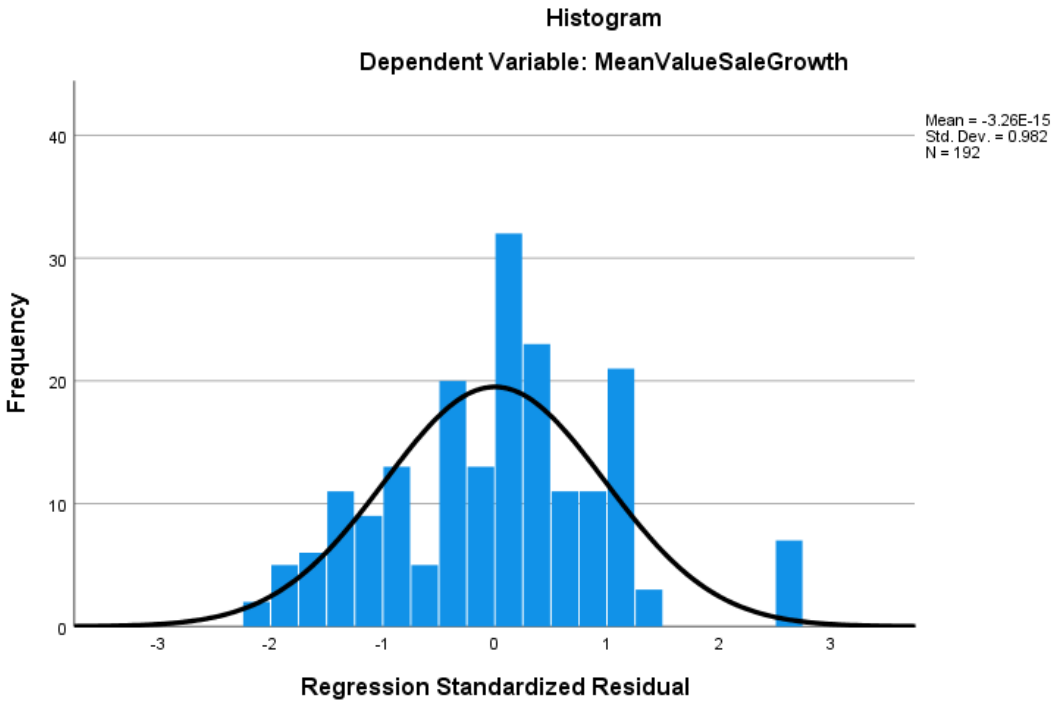
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.753[a]	.567	.551	80806.59575	.567	34.461	7	184	.000	.882

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1575136026432.440	7	225019432347.491	34.461	.000[b]
	Residual	1201465888805.123	184	6529705917.419		
	Total	2776601915237.563	191			



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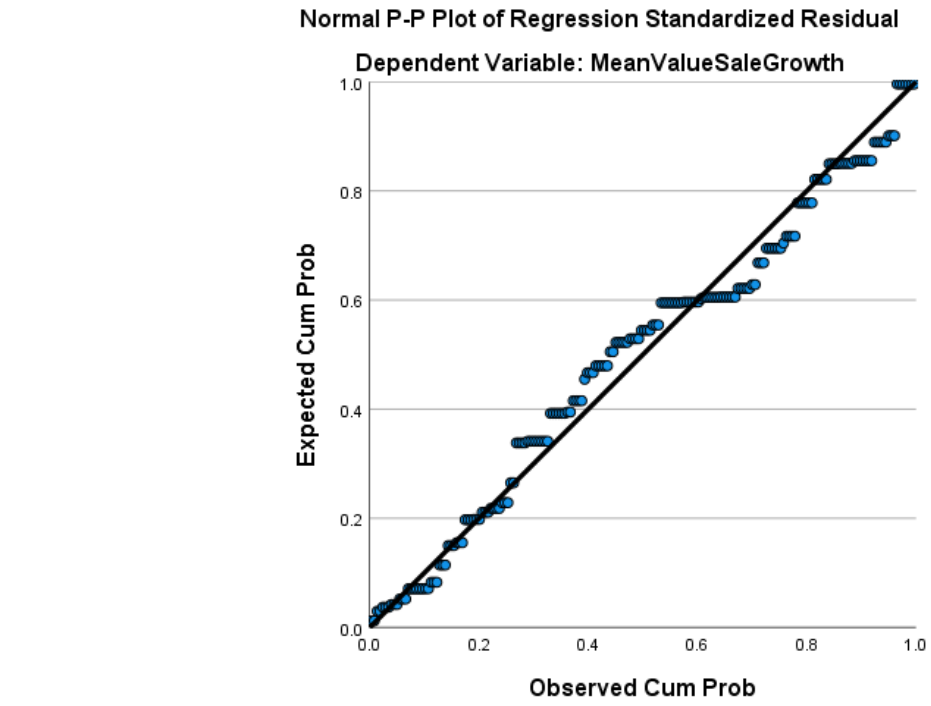

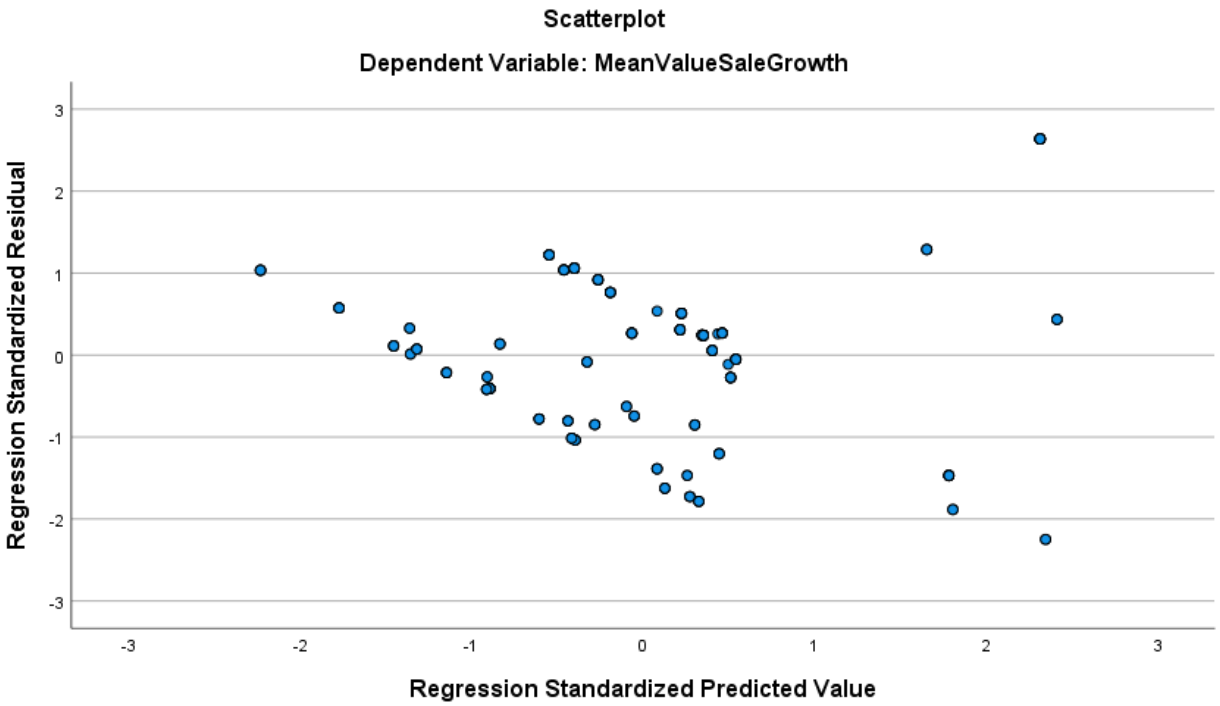

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