

***TeTe Wo Bi Kyere: Lessons from Akan Indigenous Entrepreneurship
in the Modern Ghanaian Economy***

*(The Past has Something to Teach Us: Lessons from Akan Indigenous Entrepreneurship in the
Modern Ghanaian Economy)*

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DECLARATION

I confirm that this is my own work and the use of materials from other sources has been properly and fully acknowledged.

Edwina Apaw

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DEDICATION

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ABSTRACT

The Akan are a cluster of ethnic groups in West Africa. Some are indigenous entrepreneurs that are thriving in Ghana's modern economy. In contrast, Ghana has a growing youth unemployment challenge. In recent years much research has been conducted globally in indigenous knowledge systems, however there is little focus on individual ethnic groups and their entrepreneurial knowledge. Africa as the second largest continent with the highest number of entrepreneurs, consists of hundreds of ethnic groups, languages, and cultures, each with its own indigenous knowledge systems. This empirical, qualitative study aimed to explore the Akan indigenous entrepreneurship knowledge systems (AIEKS) as a viable pathway to youth employment. Can AIEKS be used to drive successful businesses within the modern Ghanaian economy? Key objectives included the identification, use and possible future applications of AIEKS. My thesis research identified nine Akan indigenous entrepreneurs operating in farming, construction, publishing, fashion design, herbal medicine, and soap manufacturing. The methodology was empirical within an interpretivism theoretical perspective, utilizing qualitative case studies of the nine indigenous Akan entrepreneurs. In-depth semi-structured interviews were conducted on their business premises providing opportunities for observation of the products. Thematic analysis was used to identify common themes in the data. Some major themes emerging included 1) indigenous entrepreneurship education and educators, 2) business skills, 3) indigenous financial strategies, 4) knowledge intersections 5) resilience, and 6) government intervention. The study found the entrepreneurs received indigenous education through family members, community experts and the wider community. The indigenous education was flexible but structured into four main phases. Students started at age six and graduated at age sixteen to twenty years, with significant business skills to commence their own businesses. Many innovative financial strategies that lowered the

barriers of entry into entrepreneurship for financially disadvantaged youth were identified. The study proposes the integration of Akan indigenous entrepreneurship education into the formal educational system at primary and secondary level to ensure that all secondary school students graduate with an entrepreneurial mindset and the business skills needed to start their own businesses.

RELATED PEER REVIEWED PUBLICATIONS & CONFERENCE PRESENTATIONS

APAW, E and TANG, Y. 2023. Sustainable Lessons from Akan Indigenous Entrepreneurship. *The 11th International Conference on Sustainable Development (ICSD 2023)*. Rome, Italy.

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APAW, E and TANG, Y. 2024. Akan Indigenous Entrepreneurship: A Model of Sustainability and Resilience. *Australian Academy of Business Research*, Vol 2 (1), 2024

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LIST OF ABBREVIATIONS

AIC	Akan Indigenous Capital
AIEE	Akan Indigenous Entrepreneurship Education
AIEK	Akan Indigenous Entrepreneurship Knowledge
AIEKS	Akan Indigenous Entrepreneurship Knowledge Systems
AIK	Akan Indigenous Knowledge
AIKS	Akan Indigenous Knowledge Systems
IK	Indigenous Knowledge
IKS	Indigenous Knowledge Systems
BECE	Basic Education Certificate Examination
DFID	Department for International Development
ENT C	Entrepreneur - Construction
ENT CF	Entrepreneur – Cashew Farmer
ENT FD	Entrepreneur – Fashion
ENT PC	Entrepreneur – Publishing Company
ENT SM	Entrepreneur – Soap Manufacturer
ENT TM	Entrepreneur – Traditional Medicine
ESP	Education Strategic Plan
GALOP	Ghana Accountability for Learning Outcomes Project
GES	Ghana Education Service
GLSS7	Ghana Living Standards Survey (2019)
GPE	Global Partnership for Education

HND	Higher National Diploma
JHS	Junior High School
KNUST	Kwame Nkrumah University of Science and Technology
NGO	Non-Governmental Organisation
SHS	Senior High School
SME	Small Medium-Sized Enterprise

Chapter 1: Introduction

1.1 Research Context

The researcher is an Akan business professional, who over the past decade has travelled extensively to Ghana. She observed the increasing number of young people, working as hawkers, on city streets in Ghana selling minor goods. She identified this as a waste of youth capital and a loss to the Ghanaian economy that these young people are not engaged in productive employment. Research revealed that unemployment rate among the population 15 years and older is 13.4 %. Among the population 15-35 years, unemployment rate is 19.7% and is even higher for young adults 15-24 years (32.8%). This age bracket includes secondary and tertiary educated graduates. Despite the heavy investment in western education, unemployment in the youth is unacceptably high. Nationally, of the employed population 15 years and older, 77.1% are employed in the private informal sector. For urban areas the figure is 69.7% and for rural areas it is 87.7%. Employed population in the private formal sector nationally is 12.6%, for urban 16.8% and for rural, 6.5% (Ghana, 2021). In terms of sector, agriculture, forestry, and fisheries employ 32%, services and sales 26.5% and craft related trades 16.1%, totaling 74.6% of the employed population. The informal sector contribution to employment suggested an opportunity for indigenous entrepreneurship as a solution to youth unemployment.

The researcher's MBA research investigating the Market Queens of West Africa also identified the significant business skills and indigenous entrepreneurship knowledge of these indigenous women. Could the growing informal sector be an indication of the importance of indigenous entrepreneurship knowledge to the economy? Perhaps the western knowledge systems in which the government is heavily invested, may not be working in the Ghanaian context as anticipated.

Could the distinct indigenous knowledge systems of Ghana work better for business development and therefore economic growth and unemployment reduction? It appears to have been playing a significant role in the informal economy of Ghana but has not been studied and therefore the government has not invested in it. These observations and questions led to consideration of investigating the use of indigenous knowledge in entrepreneurship. However, Ghana has many ethnic groups with numerous indigenous knowledge systems. The Akan were chosen as they are prolific entrepreneurs and a culture conscious ethnic group. The researcher also speaks the language fluently which would be important in managing the cost of the research.

1.2 Indigenous Knowledge

Indigenous Knowledge (IK) which is the focus of this research has been acquired and practiced by people of different cultures, languages and ethnicities around the world. It is considered as the knowledge of the majority world. Much research has been conducted into IK deriving multiple definitions (Flavier et al., 1995; Zegeye and Vambe, 2006; Morris, 2010; Nakashima and Roue, 2002; Acharya and Shrivastava, 2008; Soh and Omar, 2012). For the purposes of this research IK is defined as all intelligible ideas, information and data in whatever form in which it is expressed or obtained, originating in and characteristic of a particular region or country (Hess and Ostrom, 2007). Oral traditions are seen as inferior to the written code and African IK is seen as mis-knowledge (Julien, 1997). However, in recent decades majority world researchers are challenging these findings, providing context and clarity on the value of IK (Zegeye and Vambe, 2006; Nakashima and Roue, 2002; Acharya and Shrivastava, 2008; Boven and Morohashi, 2003; Gupta, 2010; Sen, 2005; Joranson, 2008; Muyambo et al., 2022). In the context of the many challenges facing the world, researchers are increasingly interested in the alternative solutions offered by

indigenous knowledge systems (IKS). Areas such as the economy (Ogunyemi et al., 2022; Akinyoade et al., 2017), climate change (Ebhuoma and Leonard, 2022), governance (Ajei, 2001), food security (Katerere et al., 2019; Vijayan et al., 2022), education (Dei and Jajj, 2018; Ezeanya-Esiobu, 2019), development (Chamlee-Wright, 1997; Quaynor, 2018; Oloruntoba et al., 2020) etc. have attracted research interest. The IK of the Akan and its use in entrepreneurship is the subject of this research.

1.3 The Akan

The Akan are an ethnic group that straddle across the West African countries of Ghana and Côte D'Ivoire. They are entrepreneurial by nature and hold vast libraries of indigenous knowledge that has allowed the kingdom to survive through much turmoil over the centuries. Within the volatility of the West African economy, Akan indigenous entrepreneurs continue to thrive making substantial contributions to the economy (Alliance, 2023; Boahen, 1977; Kleemann, 2016; UNDP, 2023; Wessel, 2015). The Akan are expert farmers (Bowdich, 1819; Arthur, 2017). Combined, Côte D'Ivoire and Ghana dominate cocoa production in the world. Internationally, they are renowned for the quality of their products including cocoa, cashew, pineapples, and yam (Kleemann, 2016; Statista, 2024; World Bank, 2023)

Nea Onnim is the Akan symbol for knowledge, lifelong education and the continued quest for knowledge. The symbol is based on the proverb *nea onnim sua a, ohu; nea odwen se onim dodo no, se ogyae sua a, ketewa a onim no firi ne nsa* (he who does not know can become knowledgeable from learning; he who thinks he knows and ceases to continue to learn will stagnate) (Arthur, 2017). Simply defined, knowledge is “anything that is known by somebody else” (Machlup, 1980:150),

implying that everyone holds a body of knowledge. The Akan proverb also indicates that knowledge can be learned and that learning should be lifelong.

1.4 Matrilineage and Female Indigenous Entrepreneurship

The Akan are one of the few matrilineal populations in the world and therefore from a research perspective they are particularly interesting to study. The Akan line of descent is traced through the female and the core family consists of a woman, her brothers and sisters, as well as her sisters' sons and daughters (Adjaye & Aborampah, 2004). This is the core family for lineage decisions. The matrilineal system of kinship is therefore the foundation of Akan social and political organisation and the Akan define themselves politically by their mother (Oduyoye, 1995).

1.5 Indigenous Entrepreneurship and education

According to Kwadwo (2002), the Akan have a complex system of education of various divisions. The first administered by parents, extended family and the community at large. The second is a system of apprenticeships for specialised skills and the third is community sponsored education designed to serve the community at large. The education is fully immersive and family businesses are the centers for training, leading to graduates with entrepreneurial mindsets by age 16-20 years old. In Akan laziness is a taboo and the child is seen as a ward of the community to ensure proper training for a productive life (Arthur, 2017).

1.6 Indigenous Entrepreneurship and Family Businesses

Akinyoade et al. (2017) define entrepreneurship as identifying opportunities, allocating resources, and creating value. Arthur (2017) indicates that pre-colonial entrepreneurship was primarily focused on providing for the family and forms the foundation of the family business in the modern economy. Ochonu et al. (2018) and Onwuegbuzie et al. (2022) stress that African entrepreneurship differs from the western capitalist experience. Culture is a key factor in entrepreneurship education and practice. As a matrilineal society, women are central to family businesses in Akan, both in management and education, ensuring that the primary needs of the family are met. The research includes family businesses in farming, soap manufacturing, construction, fashion design, publishing and herbal medicine.

1.7 The Research Gap

In recent decades researchers have done a lot of context driven work on indigenous knowledge and on entrepreneurship. On indigenous knowledge based on the increasing acknowledgement of their potential to contribute to solving some of the major problems facing the world today. Likewise, studies on entrepreneurship have also become important due to the recognition of their contribution to the increasing problem of youth unemployment. However, in Africa, very few research connects the two, indigenous knowledge and entrepreneurship. Considering the vast ethnic groups across the continent, each with its own knowledge systems, it is important not to group them all together as each group will bring its own unique contributions to the table. For Ghana, there is a gap in all the indigenous knowledge systems and how they are used in entrepreneurship. As a starting point, this research will focus on Akan indigenous knowledge systems and entrepreneurship.

1.8 The Research Problem

Despite the vast knowledge held by the Akan and their contribution to the West African and Ghanaian economies, the government of Ghana does not invest in the IKS. Instead, the government is focussed on the British model of education which ultimately prepares people for employment, not entrepreneurship and it is expensive (Ghana, 2018; Ghana, 2019; Ghana, 2024). With Ghana's growing population, youth unemployment is a major problem for the government. Although the government is introducing entrepreneurship education at the tertiary level, it is both expensive and based on the western model of entrepreneurship (Ackah et al., 2018; Dzisi and Odoom, 2017). However, Akan indigenous entrepreneurship education is designed to be affordable for all (Olaniyan et al., 2023). Among the Akan are successful entrepreneurs operating in the modern economy, whose business models could be used as prototypes for educating the next generation of entrepreneurs at minimal cost to the government. This research justifies the need to fill the research gap for Akan indigenous entrepreneurship knowledge, to support policies on the economy, employment and education.

1.9 The Research Question

Based on the research gap and problem identified, this research study asks the question “Can Akan indigenous entrepreneurship knowledge systems (AIEKS) be used to drive successful businesses within the modern Ghanaian economy?”

1.10 The Research Aim, Scope, and Objectives

The aim of the research is to investigate Akan indigenous entrepreneurship knowledge systems (AIEKS) as a viable pathway to context driven employment within the modern Ghanaian economy.

The scope of the research is restricted to the Akan territories of Ghana. Akan territories in Ghana cover approximately 45% of land mass and is in the central and southern parts of Ghana. Participants of the research are also restricted to indigenous entrepreneurs only.

The objectives of the research are:

1. To determine who are the indigenous Akan of modern Ghana.
2. To explain the philosophies underlying Akan indigenous entrepreneurship knowledge (AIEK) systems
3. To identify what Akan indigenous entrepreneurship knowledge (AIEK) exists in various business functions: finance, HR, innovation, sustainability, business values, marketing and sales, business development, training, knowledge transfer, customer service etc.
4. To investigate how the Akan indigenous entrepreneurship knowledge (AIEK) is being used in various industries in Ghana's modern economy.
5. To identify intersections between Akan indigenous entrepreneurship knowledge (AIEK) and western knowledge within the indigenous businesses.
6. To consider the application of Akan indigenous entrepreneurship knowledge (AIEK) in the education of the next generation of Akan entrepreneurs in the modern Ghanaian economy.

1.11 The Significance of the Research

1. Theoretical Significance: The research contributes to the growing body of knowledge on indigenous entrepreneurship, specifically, on Akan indigenous entrepreneurship. It is significant

for indigenous entrepreneurship education, indigenous business functions such as finance and human resource. The research is also significant for understanding the Akan indigenous entrepreneurial mindset that has achieved success in Ghana's modern economy. Since Ghana's educational system is based on the British system, knowledge intersections are expected to impact business practice in the modern economy. The study therefore contributes to the impact of such intersections on business success. As the Akan are matrilineal, the research is significant for gender contributions to indigenous knowledge.

2. Methodological Significance: The research contributes to a three-step research design focused on relationship and trust building, participant criteria and the importance of theoretical perspective in interpretation. In oral systems one of the key databases is the human. It is in the human mind that the knowledge of ancestors is maintained. Therefore, to research IK, without including the human as part of the research design is problematic.
3. Practical Significance: Although the research is focused on Akan indigenous entrepreneurship knowledge systems for the education and employment of the next generation, the application can be extended to many fields. There are policy implications for education integration at all levels from primary to tertiary education; employment, economic development; and financial services.
4. Research Implications. Akan is only one of many ethnic groups in Ghana. Each ethnic group has its own body of indigenous entrepreneurship knowledge on which the research can be repeated. Therefore, the research can be duplicated across ethnic boundaries to support entrepreneurship across the county. Future research into the valuation of Akan capital innovations used by the entrepreneurs to support their businesses as well as those of other indigenous knowledge systems will support entrepreneurship and impact employment. Since

Akan is matrilineal, future research on all female participants is warranted to add a gender lens to Akan indigenous entrepreneurship.

1.12 The Research Participants

The research participants are successful Akan indigenous entrepreneurs operating in Ghana and some internationally. They operate in various industries including farming, construction, fashion design, soap manufacturing, publishing and herbal medicine. They identify as indigenous Akan, with secondary level formal education at the start of their businesses. They have used indigenous knowledge to innovate and build successful businesses within the modern Ghanaian economy. Of the nine entrepreneurs, eight are male and one is female. All, except one are married with children and each hold extensive responsibilities within their communities.

1.13 Conference Papers and Publications

Four conference papers were delivered during work on this thesis, all were based on sections of the research findings. The first presentation, *Sustainable Lessons from Akan Indigenous Entrepreneurship*, considered some of the identified indigenous practices used by the Akan entrepreneurs. The second paper, *Akan Indigenous Farming and Sustainable Development Goals*, focussed on the four farmers and the UN sustainable development goals 4 and 15, quality education and life on the land. The third paper, *Akan Indigenous Entrepreneurship: A Model of Sustainability and Resilience*, considered Akan sustainability and resilience as experienced by some of the entrepreneurs. The final paper, *Impact of Akan Cosmology on Sociopolitical Organization*, was based on a section of the literature review and the translation of Akan cosmology into Akan livelihood.

1.14 Organization of the Chapters

The research is organised into seven chapters as follows:

Chapter One is the introductory chapter to the research. This chapter provide an overview of the investigation, providing a brief context, introducing the research question, aim, scope and objectives. The chapter also covers the areas of significant contribution to current research.

Chapter two is the in-depth literature review and is divided into two sections. First section deals with definitions of IK, historic challenges of IK and how these are being addressed by recent researchers and finally indigenous knowledge on a global, African and West African level to showcase some of the contribution of IK to global challenges. The second section of this chapter focuses on the Akan of West Africa and their IKS. Substantial space is committed to this section as understanding of AIKS informs the research design and interpretation of the results.

Chapter three covers the research methodology. The chapter covers the research philosophy with minor comparatives to Akan philosophy which is dealt with in detail in chapter two. The methods of data collection, analysis and implementation of the research is then described. The chapter also covers questionnaire design, sampling and ethics protocol.

Chapter four is the research results. The chapter introduces the entrepreneur participants and covers the results for sections A and B of the interviews.

Chapter 5 is the analysis of the key findings. It covers the interpretation of the results as outlined in chapter 4 and links it to the literature in chapters 2 and 3. Comparisons are made with current research to draw conclusions.

Chapter 6 is the application proposal of the research. Chapter 5 considers various possible applications of the research findings. However, this chapter focuses on the application of the

results to primary and secondary education aimed at ensuring that all secondary school graduates will be equipped with entrepreneurial skills and an entrepreneurial mindset ready to start their own business.

Chapter 7 is the conclusions of the research. The chapter reflects on the research achievements as well as the limitations. Finally, consideration is given to possible applications of the research and future research topics for researchers who may want to duplicate the research for other ethnicities. It is the intent of the researcher that the research be duplicated across many ethnicities to identify the competitive advantages of indigenous businesses, proliferate the number of indigenous businesses and preserve indigenous knowledge systems for future generations.

Chapter 2: Literature Review

2.1 Introduction

Knowledge, its philosophical origins, its creation, transfer and application has been the topic of research and debate for centuries. Today, knowledge is a major commodity for all economies and organisations. It is valued on the balance sheets of major corporations and creates niche markets for sole traders, small and medium sized businesses. Due to the colonisation of much of the world by the Europeans and the establishment of European educational systems, European knowledge has become a norm. Industrialisation with its technological advancements have brought wealth to nations that have followed such knowledge systems. In contrast, knowledge of the majority world, commonly known as indigenous knowledge has largely been undervalued. However, in recent decades, many non-European scholars have turned their attention to indigenous knowledge as a solution to many challenges facing the world such as climate change, nutrition, health, governance and education. This research will explore Akan indigenous knowledge and its use in entrepreneurship as a solution to youth unemployment in Ghana.

This review explores the definition of IK with a special focus on AIEK. For the purposes of global readers who may not be familiar with the Akan, the section on Akan philosophy will clarify the interpretation of the results. Context is critical for interpretation. As the subjects of exploration, it is important to understand the key characteristics of the indigenous Akan as well as key principles of their indigenous knowledge. As such, considerable space is given to the final section. To understand the Akan, is to appreciate the research. Wider context is provided on indigenous knowledge in action from a global and African perspective.

2.2 Defining Indigenous Knowledge

'Knowledge is anything that is known by somebody else' (Machlup, 1980). Hess and Ostrom (2007, p) define knowledge as 'All intelligible ideas, information, and data in whatever form in which it is expressed or obtained'. The Oxford dictionary defines the word indigenous as '(of people and their culture) coming from a particular place and having lived there for a long time before other people came there; relating to, belonging to or developed by these people'. It originates from the Latin word *indigen(a)* meaning 'native'. When the two words are put together as 'indigenous knowledge' they convey the meanings of 'anything that is known by the native' or 'all intelligible ideas, information and data in whatever form in which it is expressed or obtained, originating in and characteristic of a particular region or country'.

Early and recent researchers have expanded on this basic definition. Flavier et al. (1995) provides perhaps the best definition to date. Indigenous knowledge is the information base for a society, which facilitates communication and decision-making. Indigenous information systems are dynamic and are continually influenced by internal creativity and experimentation as well as by contact with external systems (Flavier et al., 1995). They identify three characteristics, which are absent in most early definitions. They conclude indigenous knowledge systems are 'dynamic' and therefore constantly evolving and increasing. Secondly it is 'continually influenced by internal creativity and experimentation'. The implication here is that there is logical reasoning, methodology and hypothetical thinking behind indigenous knowledge systems. Thirdly it is influenced by contact with external systems. Indigenous knowledge systems are not insular or protected but are consistently influenced by contact with the other knowledge systems (Howell, 1995). African indigenous systems are not hermetically sealed from external influences whether these influences

are helpful or harmful (Zegeye and Vambe, 2006). In other words, it is like other knowledge systems.

The United Nations defines indigenous knowledge as the local knowledge that is unique to a culture or society. Other names for it include local knowledge, folk knowledge, people's knowledge, traditional wisdom or traditional science. This knowledge is passed from generation to generation, usually by word of mouth and cultural rituals, and has been the basis for agriculture, food preparation, health care, education, conservation, and the wide range of other activities that sustain societies in many parts of the world (Nakashima and Roue, 2002).

In recent years many non-European researchers have weighed into investigating the topic of indigenous knowledge expanding the understanding of indigenous knowledge from a non-European perspective. Soh and Omar (2012:603) define Indigenous knowledge as “a holistic approach of management of natural resources with conservation and sustainability as the core values”. “In this context of research, indigenous knowledge is a composite but holistic set of know-how, expertise, skills derived from different sources, such as the parents, indigenous experts (elders), empirical trials and even scientific information. Indigenous knowledge appears as encoded messages and value - laden, while scientific knowledge is dependent on tests” (Soh & Omar, 2012:604). Distinct from their European counterparts, Soh & Omar identify the holistic nature of indigenous knowledge. They also use the descriptive value-laden, scientific information, encoded messages, expertise, and skills; words that hitherto earlier European researcher did not use to describe indigenous knowledge.

Acharya & Shrivastava (2008) take it a step further by defining indigenous knowledge as a source of intellectual capital. Identifying indigenous knowledge as intellectual capital imputes financial value

and acknowledges individual contribution in the creation, preservation, and transfer of knowledge within and across borders. This intellectual capital encompasses the wisdom, knowledge, belief, and teachings of regional, indigenous, or local communities. In most situations this knowledge has been orally passed on for generations from person to person. Some forms are expressed through stories, legends, folklore, rituals, songs and even laws (Acharya & Shrivastava, 2008).

Lacking an understanding of cultural traditions, many early researchers discounted indigenous knowledge as irrational and limited. These characteristics were common in the work of early European perspectives of indigenous knowledge (Morris, 2010; Grier, 1992). The Eurocentric worldview had difficulty grasping the complexities, holistic nature, and multiple platforms on which indigenous knowledge systems operate (Grier, 1992; Zegeye and Vambe, 2006). While European scientific knowledge is developed on single platforms (physical or social) based on a single hypothesis, indigenous knowledge systems are created on multiple platforms (physical, social, spiritual) and based on multiple hypotheses (Zegeye and Vambe, 2006; Nakashima and Roue, 2002). For example, indigenous peoples around the world have accepted the complex connections between the physical, social, and spiritual dimensions in disease prevention and treatment, for centuries (Acharya and Shrivastava, 2008; Nakashima and Roue, 2002).

Indigenous knowledge systems around the world observe the world beyond the visible, physical dimension. Such knowledge systems recognise an invisible spiritual dimension, which is directly connected to the physical world and impacts the beliefs and value systems of such communities (Soh and Omar, 2012; Acharya and Shrivastava, 2008). Western scientific thought has been accredited with the destruction of valuable indigenous knowledge systems around the world. Agrawal (2005:73) argues that “it is the progressive spread of science and scientific knowledge that

threatens the ways Indigenous cosmologies and knowledge work". As such scientific thought cannot be relied upon to accurately record and preserve indigenous knowledge. Zegeye and Vambe (2006) recount how European thought has constantly sought to destroy the validity of African knowledge systems, first by branding it nonexistent and then criticizing its value and importance. According to the authors, African Indigenous knowledge systems were desecrated by branding them as superstitious, ignorant, dark, without history, culture and self-defining memories and therefore non-knowledge (Achebe, 1988). Subsequently, the promotion of European written thought systems above the oral thought systems of Africa asserted that the latter was non-knowledge (Julien, 1997). In an age when the world is living in the knowledge economy, it is time for indigenous peoples around the world to dismiss such characterizations and to own their knowledge systems.

The mismatch of applying western perspectives to indigenous knowledge systems around the world has created negative stereotypes that have done a great deal of damage to valuable knowledge systems globally (Zegeye and Vambe, 2006; Grier, 1992). The inability of the western scientist to understand the holistic and synergistic nature of knowledge has led to dismissal, mockery and devaluation of indigenous knowledge systems (Zegeye and Vambe, 2006; Grier, 1992). In reality "it is only when we try to translate these local practices into western terms that we are confronted with the need to choose a certain definition, and we see how difficult it is to give voice to a worldview, which is sometimes completely different from our own" (Boven & Morohashi, 2003:12).

The picture of the "native (indigene) under the sign of the savage" (Griffiths, 1994:71) is still a brand that exists today. Some researchers never use the word indigenous due to "its reactionary

implications in some contexts" (Moris, 2010:1). It is reasonable to conclude that the indigenous peoples themselves will provide the most accurate insights into indigenous knowledge systems.

However, all knowledge is indigenous as everyone is a native of some part of the world. While Western forms of knowledge are simply categorised as knowledge or scientific knowledge, knowledge originating in the majority world is categorized as indigenous. The nomenclature is misleading and does not follow the theories of knowledge. If knowledge is anything known by someone then that which is known by the South American, The Asian and the African is also knowledge and should be simply categorised as knowledge. The word indigenous therefore becomes irrelevant because everyone is a native of some part or parts of the world (Morris, 2010).

Scientific research is therefore not the tool of the career scientist alone; it is the tool of ordinary people everywhere. Agricultural production in West Africa can be traced back to 2200 BC (Ozainne et al., 2014). The successful introduction of many crops from other continents into West Africa is an indication of the expertise of the West African farmer (Havinden, 1970). So why is such knowledge not valid? The question is where and how did the Akan gain such a body of knowledge? Did the people collaborate, observe, question, hypothesize, test, and arrive at this body of knowledge? Perhaps it is in answer to this question that the United Nations includes the name traditional science in its definition of indigenous knowledge. While the western scientist will take a soil sample to his laboratory and with sophisticated machinery examine the soil for results, the Akan scientist will perform his experiment in the field using the instrument of touch, sight, smell, and weight. The colour of the soil, the texture, the smell, the small animals in the soil, the exposure to the elements, the plants growing in the immediate vicinity and at a distance, the variety of animal life, the contours of the landscape and many other indicators will be used by the Akan scientist to

determine fertility and suitability of the soil for various crops (Dawoe et al, 2012). It is this knowledge that the Akan have used to successfully introduce crops from other continents into West Africa for centuries (Havinden, 1970). This is a demonstration of the Akan indigenous knowledge. So why is one classified as scientific knowledge and the other indigenous knowledge?

The word indigenous should be substituted with identity markers/demonyms to avoid the discrimination of one body of knowledge over another. In the Western world, underneath the umbrella of scientific knowledge, the emphasis for knowledge creation is on individuals or corporations who add to or contribute to bodies of knowledge, largely ignoring the community (Sen, 2005). These individuals or corporations are duly titled with the knowledge and therefore gain the benefits in the form of acknowledgements and financial rewards associated with the knowledge. In the majority world knowledge is created by individuals and groups but shared by communities (Sen, 2005). She states, “ownership of traditional knowledge and expressions of culture is not based on individual rights, but on a system of collective rights that are managed on a custodial basis according to customary laws” (Sen, 2005:382).

Under current theory, the idea of community knowledge is widely recognised as knowledge commons. Joranson (2008), uses the term knowledge commons to express shared resource pools that contain ideas that result from perception, experience, and/or study. She argues that universities are seen and widely acknowledged as the most prominent of knowledge commons, rewarding and crediting individuals within the system for their knowledge creation. Yet there are many knowledge commons outside of academia that should also be acknowledged as a vital part of the discussion on knowledge commons. Not only scholars and librarians, but also ordinary people should be knowledge creators (Levine, 2002).

Prof. Anil Gupta of the Indian Institute of Management, who is founder of the Honey Bee Network and sits on the governing board at the National Innovation Forum, underscores that knowledge creators must be fairly treated. For instance, in his article on March 25, 2010, he insists that “knowledge collected from farmers and other rural innovators is credited to them, and any benefit arising from the knowledge is shared with them” (Gupta, 2010). Sen (2005) also emphasizes the importance of the community maintaining ownership of their indigenous knowledge and its documentation. How do you achieve such a feat? Instead of indigenous knowledge or knowledge commons, the community’s name should be the identifier before knowledge, for example, Akan knowledge or Akan indigenous knowledge. The community, creators of that body of knowledge are recognised and the world made accountable for tapping into that body of knowledge (Gupta, 2010). Recognition and other rewards will then flow back into communities that created and preserved the knowledge. The more knowledge is used the more valuable it becomes (Hyde 1983).

2.3 Indigenous Knowledge Systems

2.3.1 Indigenous Knowledge Systems – Global

In recent years researchers are challenging the research of past years as interest in alternative bodies of knowledge and their applications to some of the many challenges facing the world is increasing. Research, discussion and debate are taking place concerning indigenous knowledge systems (IKS) in different spaces such as education, development, entrepreneurship, social justice, politic and sustainable development goals. In a world where knowledge has become a major commodity, these research arguments will continue.

In 1997, Chamlee-Wright argued that international aid programs have often been unsuccessful because they are imported, and that cultural analysis should be introduced into all economic development and market process. Two decades later, writing on democratic global citizenship education research, Quaynor (2018) warns against the use of theoretical frameworks that have been developed in western contexts being directly applied to non-western environments. In so doing researchers risk inscribing narratives of deficit on non-western societies. Tawil (2013) asserts that as the United Nations focuses on the values of global citizenship (peace, human rights, respect, cultural diversity, justice) within schools, it is important to understand how these values are enacted in various contexts. The inclusion of indigenous knowledges in global citizenship education is therefore critical. Katerere et al. (2019) goes beyond the borders of Africa to seek solutions for the many challenges facing the world like climate change, nutrition, and poverty. The research considers the marginalization of IKS by the homogenous, Eurocentric ontology and epistemology while reviewing the use of IKS to tackle some complex challenges across the globe. Ebhuoma & Leonard (2022) investigate IKS in Sub Saharan Africa and their role in adapting to climate change. The authors consider the challenges that prevent its integration with scientific knowledge while showcasing collaborations that have resulted in building people's resilience to climate change. Muyambo et al. (2022) critically interrogates the injustices meted against African IKS and practices while magnifying the many contexts where African IKS continue to be used effectively for collective and personal benefit. The authors highlight the delegitimization of African IKS by Eurocentric thinkers, the impact of colonization and the important role and relevance of African IKS in everyday life. Vijayan et al., (2022) argue that it is the political recognition of IKS that can transform indigenous food systems to ensure ecological and socio-economic sustainability.

2.3.2 Indigenous Knowledge Systems – Africa

On a continental level, the friction between African and western epistemology exists. With cross continent colonisation and the establishment of European knowledge systems, governments across Africa continue to face challenges in integrating IKS on all levels of society. The themes identified on a global level exist on the African continent.

Africa is the second-largest continent in the world, after Asia, and makes up a fifth of the planet's land area. Many cultures, languages, beliefs, traditions have been developed, contextualized, and preserved for the environment before the arrival of the Europeans. The transfer of such IKS, took place formally and informally through families and communities in social interactions, ceremonies, and many other educational tools. The settlers in Africa however labeled these IKS and methods of teaching and learning as primitive and referred to the indigenous people as uneducated, savage, and uncultured. Wiafe (2023) stresses the importance of telling the story in order to understand the context of current discussions on IKS. The African proverb made famous by Chinua Achebe, "Until the lions have their historians, the history of the hunt will always glorify the hunter" (quoted in Wiafe 2023), underscores the argument. Wiafe notes the importance of Africa's community approach to education ensuring that even children born to less affluent parents have an equal opportunity to overcome their economic disadvantage by receiving instruction from both the rich and the poor.

Researchers and authors are looking for solutions beyond the contentions to creating spaces where diverse knowledge systems can exist together. Ezeanya-Esiobu (2019) provides intellectual insights into the nature of Africa's IKS to assess how it can be incorporated into the school curricula. The underlying intent is to bring Western philosophy into contact with traditional African folk philosophy in a way that encourages each tradition to learn from the other. Prof. Sefa Dei

(2015) utilizes African proverbs in the Ghanaian and Kenyan contexts and reveals that African knowledge and traditional teaching stresses the impartation of values to build a good character and a knowledge of the world around us as a primary aim. The study makes the contrast between African community cultures that highlight the collective as opposed to the West that privilege the individual self-interest. Dei & Jajj (2018) challenge the dominance of Eurocentric thinking in education and development by offering counter narratives to promote indigenous perspectives. They argue that changing education as we know it today will require spaces where multiple knowledge systems can co-exist and benefit each other. Emeagwali & Dei (2014) also reinforces the demand for the decolonization of the academy by researchers and the rejection of disinformation and intellectual servitude with a focus on indigenous intellectual discourses on mathematics, education, medicine, chemistry and engineering.

Oloruntoba et al. (2020) examines indigenous African contributions to global knowledge production and development and refutes stereotypes depicted by Euro-centric scholars. The authors also provide historical and contemporary evidence across various disciplines, that emphasize African IKS. Gumede et al. (2021) argues the importance of IKS in the development of Africa and attributes the failure of development on the continent to the exclusion of IKS and local expertise in development strategies. The authors advocate for a change of thinking in development to reinforcing the use of IKS as a first line of action. Ogunyemi et al. (2022) emphasize the value-narratives of African IKS that can enrich management and business ethics and contribute to global knowledge. On a political platform, Ajei (2001) explores the relationship between aspects of indigenous African political culture and the quest for appropriate principles and practices for Africa's political future. He argues that some political values of traditional Akan society are relevant for the contemporary context and should be adapted and integrated into strategies for better

governance. This claim rests on the premise that some features of traditional culture can play an essential role in the search for enduring and workable solutions to Africa's socio-political and economic problems.

In the quest for the decolonisation of education and integration of African IKS across all sectors, Plockey et al. (2020) stress the essential role for African libraries in the process of change. She focusses on the attempt of African libraries to change oral cultures to written cultures. The research argues the importance of building complimentary systems to secure inclusivity in IKS, decolonize, build synergies and achieve the UN sustainable development goal of preserving the cultural heritage of indigenous peoples. Academic institutions whose survival in the knowledge economy is directly dependent on youth should take note of the research by Knaus et al. (2022). The authors highlight African student activism in the quest to decolonise education and include indigenous African thought, languages and structures, ultimately to secure a global commitment to African IKS to sustain an Ubuntu based humanity. Can any academic institution afford to ignore the African student activism for the decolonisation of the academy?

Culture continues to be highlighted as a key factor in entrepreneurship education and practice across the continent. Akinyoade et al. (2017) tackled a cross-continent study of the theory, structure and practice of entrepreneurship in multinational banks and businesses, female entrepreneurs and the role of culture in entrepreneurship. Dabić et al. (2022) cites the 2018 World Bank report which indicates Africa as the only continent with more women entrepreneurs than men. The authors cover various factors including environmental, motivations, influencers as well as constraints and cultural differences that impact the female entrepreneurs in Sub Saharan Africa. In 2011, Otoo et al., investigated women entrepreneurs in the informal sector, and the importance

for poverty alleviation in West Africa. The street food sector has a dual purpose of employing women and providing inexpensive and nutritious food for the urban poor. Results for Niamey, Niger and Kumasi, Ghana revealed that women entrepreneurs engaged in the street food sector can earn incomes 4 to 16 times higher than the minimum legal wage in Niamey and Kumasi, respectively. Incomes earned from these entrepreneurial activities contribute directly to health, education and needs of their families. Thomas (1990) also highlighted that income in the possession of women is more beneficial to the family wellbeing than in the hands of men. Adom & Williams (2012) evaluated the motives of informal entrepreneurs in sub-Saharan Africa. The study found that women are necessity driven into the informal economy whereas men are opportunity driven. However, women in time also become opportunity driven.

African entrepreneurship is different from western entrepreneurship. Ochonu et al. (2018) considers the history of entrepreneurship in Africa and how African entrepreneurship differs from the western capitalist experience. Many different indigenous enterprises are considered to show models of African entrepreneurship to provide greater understanding for social, economic and political debates in Africa. Onwuegbuzie et al. (2022) likewise explores different approaches of African entrepreneurship. The authors explore many ways in which African capitalism can embed indigenous knowledge to achieve sustainable development. Thus, recognising the importance of indigenous knowledge in sustainable development in Africa.

2.3.3 Indigenous Knowledge Systems - Ghana

In Ghana and West Africa, studies continue to be conducted into IKS and entrepreneurship. Studies in areas such as coastal erosion, climate change, soil quality and fertility, current trends in entrepreneurship, female entrepreneurship, the use of IK to encourage entrepreneurship and the

exploration of Ghana's communities of multiple consciousnesses and lived realities as an example of managing the conflict between western and IKS. Similarly, other research also covers the formal and informal sectors, development, political, education, and gender contributions to entrepreneurship. Gbedemah (2023) considered the use of IKS to protect coastal communities from costal erosion in Ghana as a more sustainable and cheaper option than western methods. Olaniyan et al. (2023) explored the use of indigenous knowledge by Nigerian root and tuber farmers to respond to climate change. The farmers use indigenous methods of preserving rainwater and crop rotation to manage climate change conditions. The farmers prefer IKS as it is effective, affordable and easily accessible as opposed to western methods that are expensive, inaccessible and therefore locally ineffective. Fosu-Mensah et al. (2021) assessed the indigenous knowledge of farmers from the Ada West District of Ghana on soil quality and fertility management and found that farmers had a good knowledge of soil fertility but did not know the degree of soil amendment to apply. The study recommended that farmers knowledge should be supplemented with scientific information.

Ghana has placed importance on entrepreneurship education in tertiary institutions as a means of combatting youth unemployment. Dobson et al. (2018) explored the tertiary education entrepreneurship program between Coventry University alumni in Ghana and the British Council. The program uses an incubator to support an experiential learning approach to practice-based entrepreneurship education. Arthur & Arthur (2020) explored the stories of Ghanaian student entrepreneurs, their motivations and challenges and the balance needed to pursue their academic work. They found that students utilized their educational opportunities to pursue predominantly craft entrepreneurship as a survival technique. The impact of Ghanaian culture on the entrepreneurial disposition of Higher National Diploma (HND) graduates of Accra Polytechnic from

2007 to 2012 was also explored (Ackah et al., 2018). The research finds that Ghana's collectivist culture has a negative impact on capital accumulation, human resource management and the urgency the unemployed graduates attached to self-employment. Dzisi & Odoom (2017) evaluated entrepreneurship education in higher education in Ghana. The study revealed the continuation of passive approach to teaching entrepreneurship which impacts students' ability to practically apply their knowledge. However, Afful-Arthur et al. (2022) recognises that in tertiary education, academic libraries play an important role in organizing and making IKS accessible for national development in Ghana. Academic libraries in Ghana recognize the importance of organizing IKS and the use of different media platforms.

Ghana contributes to high number of female entrepreneurs on the continent of Africa. Abor & Biekpe (2006) compares the use of external debt by male and female owned SME enterprises in Ghana. They found that factors influencing debt are location, size, age and profitability of the firm and the educational background and gender of the entrepreneur. Female-owned enterprises tend to be small sole-proprietorship businesses and therefore less likely to qualify for debt. Mensah & Derera (2023) investigated the challenges faced by women entrepreneurs and how policy can be used to address these issues. Women entrepreneurs are important for poverty reduction and economic growth therefore establishing policies that support them is a good strategy. The results revealed that Ghana has done much in policy but more needs to be done to support businesses in the formal sector and encourage women to move from the informal to the formal sector. Interestingly, Buame et al. (2013) discovered that formal education was not the key to entrepreneurial success for women. Rather the study concluded that to succeed as a female entrepreneur in Ghana, one required some specific knowledge, skills, and attitudes. These skills, knowledge and attitudes are acquired through self-knowledge, social knowledge, inter-personal

skills and experience from the society. Basic business skills are required to succeed as female entrepreneur. They must have a combination of attributes and skills including being goal-oriented, decisive, pragmatic, resolute, flexible and self-confident.

In the formal sector Sackey et al. (2013) also studied the business ethics of SME Ghanaian entrepreneurs to understand entrepreneurial behaviour. Ethical situations such as applying for permits, taxation, and competing for business contracts were investigated and found to impact entrepreneurial behaviour. The informal sector annually absorbs much of the employment needs of the working population. IKS are not only used in the practice of entrepreneurship, but it is used to encourage entrepreneurship. Ghanaians have always been entrepreneurial, farming, fishing, weaving, trading etc. but after independence the entrepreneurial spirit went down. Other West African nations filled the void. However, between the 1970s to 2000 there was a lot of economic hardships and Ghanaians saw small trading to medium sized trading as a means of making a decent living. Music has always been the means of communicating hardships of the environment and encouraging resilience. The research cites 5 songs that teach entrepreneurship for youth and adults. Songs are used to encourage society to work hard and be entrepreneurial (Arko-Achemfuor, 2012). Phasha (2017) investigates the IKS embedded in the arts such as song, dance, folklore, design, architecture, theatre, attire and how that can be used to promote innovation and entrepreneurship but also affirming ideas that do not oppose IKS. Poku Quan-Baffour (2007) asserts that the power of music in communicating important messages and disseminating information cannot be underestimated. This research focuses on the use of music for AID/HIV education. Agbenyega et al. (2017) also explored the potential of African folklore, specifically Ghanaian folk stories in the development of children's reflective thinking about social life. The research was based on Ghanaian folklore for children, which is popularly known as By the Fireside

Stories, encapsulated traditionally as *Anansesem* or Spider stories among the Akan of Ghana. His paper draws attention to how traditional oral storytelling can be an important part of early childhood education to develop children's reflective thinking about social life.

Darbi & Knott (2022) analyses coopetition in a cluster of small informal businesses in Accra, Ghana and the outcome for individuals, firms, clusters, and wider institutions. Coopetition is the collaboration between competing businesses for mutual benefit and is a system widely used in Akan. Adom (2015) examined female entrepreneurs working in the informal sector in Accra and their contribution to the Ghanaian economy. The study found that there is untapped potential for greater contribution to the economy by such female entrepreneurs. Biney (2019) also explored entrepreneurial opportunities among youth engaged in vending and hawking on the streets of Accra, Ghana. The research identified the challenges facing them and strategies adopted to address them. Street vending and hawking has become increasingly important due to paucity of formal job opportunities in Ghana. These informal entrepreneurship street opportunities are resulting in innovative ideas by the youth. The research used youth hawkers operating at Okponglo and Dzorwulu junctions. Government assistance is needed in assisting these youth in their entrepreneurial endeavors.

Despite the dominance of Eurocentric education in Ghana, IKS continue to thrive, with traditional leaders being the custodian of such knowledge (Heto & Mino, 2023). The study explored the role of IKS in the lives of three Ghanaian communities and found it co-existed with many knowledge systems, creating communities of multiple consciousnesses and lived realities. This is an excellent example indicating the centuries old conflict between western knowledge systems and IKS can be resolved globally.

2.3.4 Indigenous Knowledge Systems – Akan

Akan indigenous knowledge systems (AIKS) continue to be an area of study especially on topics of political leadership, theology, and knowledge transfer or education. AIK forms the basis of indigenous entrepreneurship. Ajei (2001) explores solutions to Africa's socio-political and economic problems and considers that some political values of traditional Akan society are relevant to our contemporary contexts and should be integrated into strategies for better governance. Siwila (2022) considers the political nature of knowledge and its impact on sources of knowledge being used in response to climate change. The research asserts that AIKS have always been used to protect the environment and that both written and oral source of knowledge are important for combating climate change. The ecofeminist perspective needs to be consulted as an alternative approach for addressing climate change challenges. In Akan, traditional leaders controlled the land, taxes, international trading, gold manufacturing, road building and other major industries such as Kente manufacturing. These royal households were the centers of their community's knowledge and thus responsible for the protection of the environment for future generations (Arthur, 2017).

Amponsah (2023) focusses on inclusivity in education as indicated by the United Nations sustainable development goals. This article is advocating the inclusivity of educational philosophies as a strategy for lifelong learning. Whereas Ghanaian educational systems have been focused on western philosophies, neglecting Akan educational philosophies, the author calls for inclusivity. Arguing that the inclusion of Akan educational philosophies is best for sustainable education, lifelong learning, and development of the country because it will be education that is relevant to the country. Amoateng (2018) indicates that a symbol can be a dance, song, story, a

piece of art and other forms that express the social, religious and economic realities of a people. The author presents the Adinkra Symbols of the Akan as such symbols, and as a route to showing the theology of the Akan people of Ghana but the principle of symbolism is equally applicable to entrepreneurship and economic development.

Adjaye & Aborampah (2004) indicates that sociocultural transmission is primarily through the extended family with the elders acting as the main instruments for cultural transmission. They held the bodies of knowledge and were intimately involved in the lives of the next generation, passing on the values and histories of the community. Opuni-Frimpong (2021) explores Akan Traditional Patterns of Learning and its significance for Contemporary Akan Christian Formation. Prempeh (2022) argues for the need to polish the pearls of Akan indigenous wisdom for education. He argues that since the seventeenth century the European single narrative has been imposed on the rest of the world particularly Africa. Consequently, the cultural uniqueness of Africa has been marginalised leading to the imposition of western education and the neglect of African IKS for collective living. The paper supports the integration of the Akan philosophies '*tete wo bi kyere*' and '*Sankofa*' as the foundation for inclusive social education. Amponsah (2023) focuses on the philosophies underlying Ghana's educational system. He bemoans the relegation of Ghana's rich Indigenous philosophies to the back burner, in favour of western educational philosophies to drive its educational policies and practices. He advises on the inclusion of Akan folklore including stories, proverbs, kinship rights and rules, moral codes, corporate and humanistic perspectives as a viable alternative or compliment to the current westernized education. He asserts that this will promote quality and lifelong education in the country and serve the common good of Ghanaians.

However, there are some dissenting voices against AIKS. Asogwa (2022) challenges AIKS in the light of scientific and technological development. He found that AIKS have some occultic accretions that restrict public use and therefore stifle scientific and technological advancement rather than encourage it. Opoku & James (2020) covers the challenges of teaching Akan indigenous environmental science at secondary school. The authors provide a defeated view of indigenous environmental science and the challenges of teaching it without offering any solutions or implications on the environment.

The Adinkra symbols to the Akan are a form of pictographic writing system that since its creation has been used extensively in entrepreneurship. In the Akan world, Adinkra symbols are found everywhere, from architecture, furniture, jewelry, textiles, and fashion design, propagating its deep meaningful messages to all who can read Adinkra. In Ghana and internationally, Adinkra continues to capture the imaginations of modern entrepreneurs. Based on Akan proverbs, they convey deep and complex wisdom in a visual and easy to memorise form.

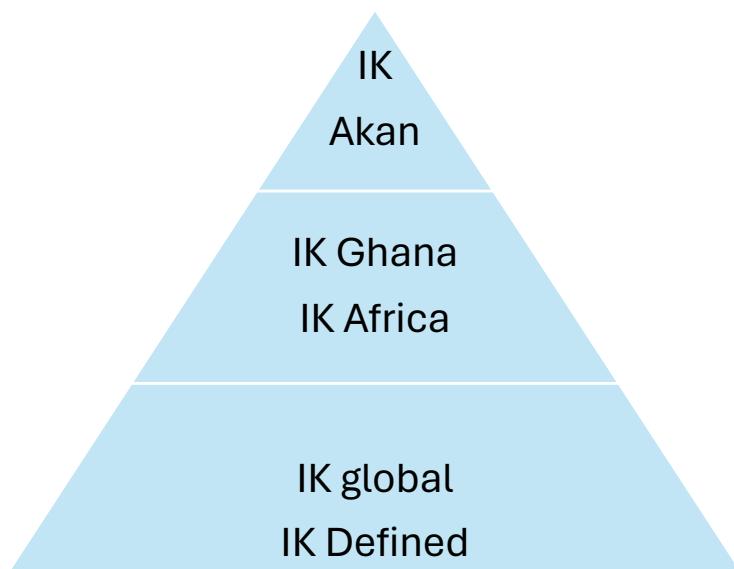


Figure 2. 1: *Apa* - Drying Mat

The sectioned triangle (*Apa*) or a drying mat is an Adinkra symbol of preservation and security. The mat is traditionally used for drying food products and thus an object of food preservation. Food can be preserved using the *Apa* for the dry season when food is scarce thus providing food security for the family and community. In Figure 2.1, it is creatively used to represent the preservation of indigenous knowledge systems globally as defined, in Africa, Ghana and Akan and for the security that the majority world finds in the enduring legacy of their IKS. According to Amoateng (2018), Adinkra symbols are routes to showing the theology, entrepreneurship and economic development of the Akan.

2.4 Who are The Akan Nation?

The Akan of West Africa straddle across the countries of Ghana and Cote D'Ivoire. By location they occupy southern Ghana and the southeastern section of Cote D'Ivoire. The Akan consist of various ethnic groups including Asante, Fantse, Akuapem, Akyem, Okwawu, Bono, Wassa, Agona, Assin, Denkyira, Adansi, Nsima, Ahanta, Aowin, Sefwi and Baoule. By land mass they occupy approximately 45% of Ghana. Common to this group of people are a 40-day calendar (adaduanan), common religious beliefs, marriage institutions, naming ceremonies, matrilineal inheritance, and clan systems as well as a common language across most of the ethnic groups. The earliest formation of the Akan is believed to go back to AD1300 (Arthur 2017, Boahen 1966, Boahen 1977, Ozainne 2014). From a feminist perspective, the Akan are particularly interesting as one of the few matrilineal populations in the world. Based on the mother's bloodline, the Akan define themselves politically through their mother and form the foundation of Akan social and political organisation (Oduyoye, 1995).

This research focuses on the Asante as the ethnic group that holds much of Akan culture and internationally the best known of the Akan group. The Asante kingdom existed as a sovereign kingdom outside of the British Gold Coast for approximately 100 years. During this period of Asante war with the British Empire, other Akan groups were under British rule. Ghana gained independence approximately 50 years after the capture and exile of the Asantehene (Asante King) Osei Tutu I. Due to the limited years the Asante were under British rule, most of their culture remained intact and can be used to gain insights into Akan culture. According to the royal historians interviewed at Manhyia Palace “When you speak of Akan you are mostly referring to the Asante. Today if you are talking about the purity of Akan culture, it is the Asante who are recognised as having the precolonial culture” (Safo-Kantanka et al., 2023).

2.4.1 Akan Cosmology

To understand the Akan is to understand their cosmology, for it underlays all their knowledge systems. According to Badejo (1998) the religious tenets of any society underscore the philosophical legitimacy for its social actions. This research adopts this concept and applies it to an analysis of Akan indigenous knowledge systems (IKS) to gain understanding. Akan cosmology provides a model to understand Akan epistemology and ontology. Akan cosmology underlays Akan kinship and lineage, social order, political and spiritual leadership, gender equality, power, and justice practices of the Akan.

The Akan proverb states, *Nnipa nyinaa ye Onyame mma; obi nye asase ba* (All [wo]men are the children of God; none is a child of the earth). Akan religious tenets determine its origins and values. The Akan trace their existence to a creator God and have explicit descriptions of God as depicted by the Akan names for God. The three most popular names are particularly significant as they provide

graphic insights into the Akan God. Perhaps the most popular Akan name for God is Nyame or Onyame. Translated Nyame is mother, grandmother or queen mother God (Antubam, 1963). They view God as female. In the language of the Akan, Nyame is the name on the lips of the people as they pray and sing to God. The second most popular Akan name for God is Nyankopon. Nyankopon is father, grandfather, or warrior God (Antubam, 1963). They also view God as male. Thirdly to the Akan, God is also the creator of the universe and the Akan name for the creator is *Odumankoma*. *Odumankoma*, the creator God is androgynous, both male and female (Antubam, 1963). However, God transcends both male and female (Arthur, 2017).

The Akan Adinkra symbols are visual and abstract codes of Akan knowledge. The following symbol is an abstract representation of the Odumankoma:

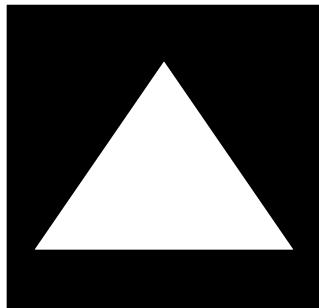


Figure 2. 2: Akan Symbol of Odumankoma (Arthur, 2017)

The square or rectangle (Anannan) is representative of the sanctity in the male aspect of both God and man (Antubam, 1963). The rectangle (Anansa) is one of the most used of the female symbols (Antubam, 1963). The three corners of Anansa represent God as ruler of the universe consisting of earth, sky, and the spirit world (assase, ewimu and asansanase) (Arthur, 2017).

The Akan believe that *Odumankoma* created the universe and infused his creative power throughout the universe (Gyekye, 1987). The Akan also believe the human being was created by *Odumankoma* in his image and as such is sacred and free from sin (Antubam, 1963). *Odumankoma* created the human being in a trinity consisting of the physical, the personality and the spiritual (Arthur, 2017). The three parts are provided by the mother, father and God as follows:

Table 2. 1: The Trinity of the human being (Arthur, 2017)

Mother	Father	God
Mogya (blood)	Sunsum (personality)	Kra or okra (Spirituality)
Abusua (family)	Ntoro or Asafo	Spirit

The Akan view of God as mother, grandmother, queen mother, father, grandfather, warrior, creator, androgenous and the trinity concept of the human being are critical to understanding Akan thought and societal organization. This concept of God underscores the Akan belief system of the equality of man and woman (Gyekye, 1987; Arthur, 2017).

2.4.2 Akan Ontology

Ontology is a sub field of metaphysics and focuses on the nature of being, existence and reality. “Ontology deals with what can be rationally understood” (Poli, 2010:1). The Akan believe the universe and the earth exist in physical reality and is knowable. They believe in the order or the necessity of physical laws to making sense of the physical world. According to Arthur (2017) the Akan believe in a specific order for creation. First the *Odumankoma* created order or laws of the universe, secondly, knowledge and finally death. So, the Akan is a positivist in their understanding of universal laws. Without the universal laws one cannot make sense of the universe. It is within this

philosophy that they develop their knowledge and knowledge systems. The Akan is therefore a positivist/realist. However, the Akan belief of *Odumankoma* and the nature of humans translates into a spiritual reality. Reality to the Akan is therefore both physical and spiritual, both are knowable and therefore measurable. The spirituality of the human in the ability to access *Odumankoma*'s knowledge is a daily reality to the Akan and part of their history. To them, their experience with the spiritual world is reality in the very different ways they have experienced it in their history. It therefore forms part of their knowledge, knowledge systems as much as, if not more so than the physical reality. As the knowledge keepers noted in their interview “everything about the Akan is spiritual” (Safo-Kantanka et al., 2023). The Akan proverb states *obi nkyere akoda Nyame* (nobody teaches a child about God) (Appiah et al., 2007).

2.4.3 Akan Epistemology

Epistemology is defined as “the theory of the different kinds of knowledge and the ways in which it is used” (Poli, 2010:5). It deals with what we know and how we know it and the use of our sense and the mind to acquire that knowledge. From the previous section on Akan cosmology, the connection to Akan epistemology is clear. The Akan theory of knowledge is that *Odumankoma* created knowledge but gave humans the ability to create knowledge. Therefore, a child comes into the world with some innate knowledge but also acquire additional knowledge from their environment as they grow. The acquisition of knowledge is primarily through the observation of all that *Odumankoma* has created and secondly what man has created. This is the reality of knowledge to the Akan. Observation is through all the five senses, vision, touch, taste, smell, and hearing. This is what the Akan used to amass knowledge of their environment. The Akan belief that knowledge is both physical and spiritual and that runs through every level of knowledge. Not everything is explainable just in the physical world (Arthur, 2017).

In Akan, knowledge is gendered, as there are distinct gendered roles at all levels of Akan society (Arthur, 2017). Men and women are seen to be especially knowledgeable in certain areas where their expertise dominates. For example, the Akan hold female knowledge in high esteem as epitomised in the Akan proverb *yereko bisa abrewa* - we are going to ask the female elder. Important decisions in the family are never finalised without the input of the female elder in the family. In public it is only the Queen Mother who can correct the King (Oduyoye, 1995; Antubam, 1963). It is also the Queen mother who nominates the future King. All humanity passes through the womb of the woman; therefore, it is the woman who best knows the character of men best suited to rule (Badejo, 1998). Men also have certain areas of expertise such as warfare, hunting and Kente weaving. Entrepreneurial knowledge is an integral part of indigenous Akan and both men and women hold this body of knowledge.

The Akan have a systematic approach to knowledge management (Adjaye & Aborampah, 2004). How do the Akan ensure the accurate transfer of knowledge? The Akan understood that memory cannot maintain all knowledge, so they developed many creative forms of preservation and transfer methods. The Akan have both verbal and written codes of communication which has been used over generations to transmit knowledge in the form of stories, proverbs, adinkra signs and other physical and abstract symbols such as colour, religion, ceremonies, music and dance, dress, and various objects (Arthur, 2017; Antubam, 1963).

In summary to the Akan, knowledge is both physical and spiritual; it is gendered; it is codified; it is dynamic and transformational; it is created by Odumanakoma and added to by humans; knowledge has order; it is innate and experiential.

2.5 Akan Knowledge in Practice

2.5.1 Akan Kinship/Matrilineage

How did the Akan matrilineal system originate? According to Badejo (1998) the religious tenets of any society underscore the philosophical legitimacy for its social actions. The Akan believe that Odumankoma is both mother and father, so why do the Akan follow the mother's lineage instead of the father's lineage? The Akan belief of the trinity of the human being is the underlying philosophy of Akan kinship (Arthur, 2017). The Akan believe that is the mogya (menstrual blood) alone that gives life to a human being (Arthur, 2017). In biological production, the man provides the sperm and the woman the egg to produce the embryo. However, without the menstrual blood of the woman the embryo will not survive. It is this fact that propels the Akan woman into a position of great importance as the life-giver and sustainer of the family. Akan women are the center of the kinship unit and girls are brought up to feel the weight of this great responsibility (Oduyoye, 1995). The Akan woman, as the giver of sacred blood, is positioned as one through whom all humanity comes into existence. This is the foundation of the matrilineal system of kinship in Akan society. Without women "a lineage is finished" (Oduyoye, 1995:7).

The Akan matrilineal kinship structure means that an individual, from birth to death, remains a component of her/his matrilineage, which consists of a woman, her brothers, and sisters, as well as her sisters' sons and daughters. The line of descent for any given matrilineage is traced through the female members of the group and living adults of the group form the core of blood or consanguineal relatives around whom lineage decision-making occurs (Adjaye and Aborampah, 2004). Therefore, Akan define themselves politically by their mother (Oduyoye, 1995). The matrilineal system of kinship is therefore the foundation of Akan social and political organisation.

2.5.2 Akan Socio-Political Organisation

At the primary level of the matrilineal system is the family (abusua), headed by a male elder (abusuapanin) and a female elder (obaapanin). At the secondary level, groups of families form the village or town and is headed by the chief (ohene) and the queen mother (ohemaa). At the state level, the kingdom is ruled by the king (ohene) and the Queen mother (ohemaa). Thus, at every level of Akan society the leadership of women run parallel to that of men, a system known as dual monarchy (Badejo, 1998). Both the ohene and ohemaa occupy stools (thrones), seen as the spiritual loci of the ancestors. Indeed, Rattray's (1927) elderly female informants asserted that the ohemaa's stool was senior to that of the ohene's. Her most important responsibility is the selection of three top male candidates for election of the next king or chief. Finally, the Queen Mother proves her seniority by being the only person allowed to publicly correct the Ohene (Odugoye, 1995; Badejo, 1998).

2.5.3 Akan Indigenous Entrepreneurship Education

The Ghana Living Standards Survey (Ghana, 2019) offers some insightful statistic in the role of indigenous education in employment and by implication the economy. GHANA (2019) indicates that 91% of the population have education at secondary level or lower. This implies that 91% of the population fall within the educational requirements of this investigation. GHANA (2019) also indicates that 71.3% of the employed population work in the informal sector of the economy with only 28.7% working in the formal sector. The formal sector is unable to generate sufficient jobs for the working age population. More interestingly, the education of the employed is telling of the important role indigenous education plays in the economy. 19.9% of the employed population has no formal education, 54.2% has basic education (kindergarten, primary, Junior high school/junior

secondary school, or middle school) and 14.2% have senior secondary school/senior high school or secondary school. Interestingly 66.7% of those employed in the informal sector were aged 20-39 years, meaning the informal sector continues to be the biggest absorber of youth employment. In the light of the free secondary education for all Ghanaian students by this current administration, it will be interesting to see the impact of that policy on the above statistics.

According to Arthur (2017) Akan society supports the notion of lifelong education. It is captured in the proverb *nea onnim sua a, ohu; nea odwen se onnim dodo no, se agyae sua a, ketewa koraa a onim no firi ne nsa* meaning *he who does not know can become knowledgeable from learning; he who thinks he knows and ceases to continue to learn will stagnate* (Arthur, 2017). The Akan has a complex system of education administered by family, community elders, the community at large, teachers of specialised knowledge and skills, institutional organisations, and designated knowledge keepers of the royal households. The child is seen as the ward of the community and as such both the family and community play a critical role in the bringing up of the child.

According to Kwadwo (2002) these are the divisions of indigenous Akan education:

1. Education from parents (including extended family members and the community at large).
2. Apprenticeships for special skills.
3. Community sponsored education.

The start of European education began under the first king of Asante Osei Tutu I in early 1700s (Kwadwo, 2002). Arthur (2017) also indicates that the Akan had a system of formal education for the transmission of specialised knowledge. Specialists included statecraft, drumming, hunting, priesthood, oratory, accounting, arts and crafts, herbal medicine. Arthur explains that the apprenticeship system of education used for specialised training was both informal and formal.

The education was well rounded, not just about specialised skills but also focussed on character, discipline, and wisdom.

The Asante kingdom and subgroups are bureaucratic with complex systems of government, requiring technical and managerial expertise to run. This included a health system of both preventative and curative medicine; the treasury responsible for monetary systems and tax collection; royal couriers and traders who managed international trade for the king and the road system measuring distance and collecting tolls. (Arthur, 2017).

2.5.4 Akan Family Business

Akinyoade et al. (2017) define entrepreneurship as identifying opportunities, allocating resources, and creating value. Arthur (2017) indicates that pre-colonial entrepreneurship was primarily focused on providing for the family and the foundation of the modern family business. In the modern economy, Ochonu et al. (2018) articulates the figure of the entrepreneur as representing the economic hopes and aspirations of different African societies. Bowdich (1819) describe entrepreneurial activity in Kumasi 200 hundred years ago. Havinden (1970) describes centuries of cultivation by the Akan of West Africa, the foundations of the modern success of family farm businesses in cocoa, cashew, yam and pineapple.

Ochonu et al. (2018) and Onwuegbuzie et al. (2022) stress that Africa entrepreneurship differs from the western capitalist experience. Culture is a key factor in entrepreneurship education and practice. Akinyoade et al. (2017) identify the role of culture in entrepreneurship across Africa. Women play a central role in family businesses across the continent. Dabic et al. (2022) indicate that there are more female entrepreneurs in Africa than anywhere else in the world, supporting the

fact that African entrepreneurship is primarily about the family and for supporting family needs. For example, Otoo et al. (2011) investigated West African women food vendors and poverty alleviation. Results indicated that the women earned up to 16 times more than minimum wage to meet their family needs.

Most family businesses in Ghana operate within the informal sector of the economy utilising indigenous knowledge systems. The informal sector annually absorbs much of the employment needs of the working population. GHANA (2019) indicates the informal sector is the biggest absorber of youth employment. 71.3% of the employed population work in the informal sector of which 66.7% are aged 20-39 years old. 19.9% have no formal education and 54.2% have basic education. The implications are that they are largely using indigenous knowledge to manage these businesses. The growth of the informal sector may well be attributable to the resiliency of the family businesses that operate within the informal sector. UNESCO (2021) defines resilience as the ability to plan and prepare for, absorb, withstand, recover from and adapt to adverse events and disruptions. According to Apaw & Tang (2024) resilience is the physical, mental and spiritual ability to withstand tough training, develop new skills, adapt to community value systems with the vision to identify new opportunities and the courage to pursue them. These family businesses can withstand the uncertainties of the modern economy, adapt and develop to take advantage of the ever-changing opportunities available. In Akan regions, family business exists in all industries, the largest being farming. However, the research participants are business owners in construction, publishing, fashion design, herbal medicine and soap manufacturing as well as farming. These constitute some of the most promising industries not just in Ghana but also in Africa.

Herbal medicine is one of the fastest growing industries in the world. In Ghana the potential is huge due to the body of knowledge in the country (Asase, 2023). However, as any new industry, there are many challenges to overcome. Asare et al. (2021) investigated clinical administration of herbal medicine in the hospital system. Challenges were found in doctor's prescription, nursing education and national health service coverage. Boateng et al. (2016) also investigated herbal medicine integration at Kumasi South Hospital. There was support for the integration but a need for greater awareness for patients. The integration of herbal medicine into the hospital system is likely to fuel demand once it is approved for coverage on the national health service. Opportunities abound in the private sector too and families that hold such knowledge are setting up family businesses.

Ghana is the second largest cocoa producer in the world and the major waste product, the cocoa pod is also the main ingredient for black soap production. The production of black soap has substantial welfare and economic gains for the farmer (Bannor et al. 2024). According to Ogunbiyi & Enechukwu (2021) production of black soap is traced back to Ghana and Nigeria. It is a cleansing and medicated soap that is popular with people of African descent. It has antimicrobial properties against staphylococcal and some streptococcal organisms. Olajuyigbe et al. (2017) compared the antibacterial property of black soap with medicated soaps. Results found that black soaps were significantly more active than medicated soaps in inhibiting and killing bacteria. As a valuable medicinal output derived from organic waste, black soap production, utilisation and commercialisation has tremendous economic potential.

Education is important to the Akan and to Ghana. As such school textbooks dominate the economics of publishing, attracting profit hungry multinationals and marginalising home-grown trade publishing. Ofori-Mensah (2015) suggests that an effective pan African book fair remains an

important need if African publishing is to prosper. Opoku-Amankwa et al. (2015) found there is continued need in publishing for mother tongue based bilingual education. As Africans continue to call for integration of IK into the educational system, this area of publishing will become increasingly important. However, it faces many challenges such as shortage of writers, teachers in local languages, lack of interest on part of publishers and support for dominant western languages such as English. The informal sector also has a printing hub and in the light of the many challenges faced by home grown publishers, Darbi et al. (2021) advocates for government policies that can nurture these indigenous family businesses. They argue that the informal economy is resilient and can achieve operational and competitive performance as well as good socio-economic outcomes. Opoku-Amankwa et al. (2012) also highlight the mobile book sellers who carry books to the doorstep and play a vital role in book distribution in Ghana, although the research raises some concern about the quality and content of some of the reading materials.

Stepping foot into Ghana, one immediately observes the tremendous opportunities in construction in both the public and private sector. The economic growth of the country and population growth is constantly fueling demand. Large construction companies dominate the public sector, however there are growing opportunities for SME construction firms. As a capital-intensive industry, SME construction firms face many challenges for growth and survival. Asante et al. (2018) researched the needs of small and medium scale building contractors. The research found the contractors needed support on anti-corruption measures, job accessibility, technical and technological assistance, favourable fiscal policies, business development support and financial assistance. Offei et al. (2019) also found that there are factors affecting the financial, managerial and technical capacities of SME construction firms in Ghana. These included delays in receiving payment for work done, nonpayment of interest on delayed payments, limited access to finance and lack of fair

competition. Elijah & Cook (2003) researched the experience of the Bank for Housing and Construction and their program for construction firms. The research found that the underachievement of the programme was due to the firms lack of managerial and technical capabilities, their inability to obtain contracts and delayed payments from their major clients. For the bank, the deliberate refusal to repay loans was a major factor for underachievement on the programme. Arthur-Aidoo et al. (2008) also considered factors influencing growth of SME construction firms and found that of major importance was stakeholder involvement in such firms. Fashion design is important in Ghana for many reasons. To the Akan clothing is more than a covering, it is also a form of communication (Arthur, 2017). The Akan are also the creators of the famous Kente cloth. Therefore, in Akan regions and across Ghana, apprenticeships in tailoring and seamstress businesses absorb thousands of young people each year. construction for family businesses. Langevang & Gough (2012) researched the two main areas of apprenticeships in Ghana, hairdressers and seamstresses. Although major areas of business formation for many young people, some challenges were highlighted. These challenges were mainly faced by the seamstresses due to the influx of second-hand clothing from western countries. Since then, the government has introduced Friday as traditional wear day and has boosted opportunities for the trade. Osseo-Asare (2023) highlight Ghanaian seamstresses rising to the challenge of providing fashionable face masks for the population during the COVID 19 pandemic. The sector continues to be a lucrative area of employment for young entrepreneurs wanting to set up their own business.

Within the challenging modern economy in which the entrepreneurs operate, resilience, government intervention and community values are critical for survival and success. UNESCO (2021) describes resilience as the ability to not only plan, prepare and absorb adverse events or interruptions but the ability to withstand and recover from it. Current understandings of resilience

are context specific, for example the UNESCO definition is applicable to education. The New Zealand government uses different descriptors for resilience in terms of national disasters. Phrases such as anticipate and resist, minimise adverse impacts, respond effectively post-event, recover functionality, and learn from the disaster indicate that we are dealing with national emergencies (Pells, 2023). Roostaei et al. (2019) also considers resilience in the context of natural disasters in the United States. The context refers to deliberate attacks, accidents and natural disasters. Again, the definition refers to preparing, withstanding and recovery. Although there are no context specific definitions of resilience for IK, the current definitions can be applied.

2.5.5 Akan Entrepreneur Farmers

The rich savanna and tropical lands of West Africa, occupied by the Akan, have been cultivated for centuries with successful introduction of various crops from other continents (Havinden, 1970). In fact, a study by Ozainne et al. (2014) traces agricultural production in West Africa back to 2200 BC. Dawoe et al. (2012) explored farmers knowledge of soil fertility in the Ashanti Region of Ghana. They found that farmers have a rich knowledge of soil fertility using various indicators such as colour, texture, water retention and plant types to ascertain the fertility level. Soil samples were tested scientifically and produced similar results (Dawoe et al., 2012). Fosu-Mensah et al. (2021) also investigated IKS and soil quality and fertility and found that farmers had a good knowledge of soil quality.

Bowdich (1819) provides insights into the Akan farmer of 200 years ago. Their plantations were extensive, neat, and methodically organized in rows, well fenced, and gated with broad walkways and a hut for workers. The only equipment used was a hoe. Two crops of corn were grown each year, yams were cultivated in December and harvested in September. Bowdich (1819) also describes

various food items that were sold in Kumasi market including beef, mutton, chicken, yams, plantains, corn, sugar cane, groundnuts, rice, okra, peppers, shea butter, oranges, papaws, pineapples, bananas, eggs, dried fish, snails, and palm wine. Many other crops were also abundant in the forests and were harvested for consumption or sale locally and internationally. These included coconut, oil palm, shea butter, cocoa, kola nuts, cotton, and tobacco.

The Akan farmer is a master of sustainability, utilizing simple methods that protect the fertility of the soil and making maximum use of crops. According to Arthur (2017) the oil palm tree was formerly a major industry for the Akan. The industry initially consisted of just picking the fruit and extracting the red oil, principally used for cooking, soap making and lamps. However, over time the Akan developed a use for every part of the oil palm tree ensuring that nothing was wasted. The oil from the kernel was also extracted and used for the skin and cooking, while the shell of the kernels was used for fuel by blacksmiths and for making gun powder. The palm branches were used as building materials, for making baskets, drying mats, and storage barns as well as brooms for the home. Palm wine tapping was an important occupation for many and even the rotten tree provided mushrooms for consumption and fertilizer for the land. Consider the holistic nature of the knowledge around the oil palm; it is linear concerning the main product of red oil and its many uses; circular in the many uses of the whole plant so nothing is wasted; periodic in harvesting and use of all the products. The industry expanded to feed the growing demand for the soap and margarine industries of Europe.

The skill of the Akan farmer and their ability to create sustainable growth is also evident in the cocoa and cashew industries. According to Clarence-Smith (2000, quoted in Arthur 2017), in 1892 Ghana exported no cocoa beans. Yet nineteen years later, Ghana exported 40,000 tons per year and

overtook Brazil as the world's largest exporter. In 1923, output reached 200,000 tons per year and in 1936, output exceeded 300,000 tons per year. The cocoa growing belt of Ghana largely exists in Akan land, so the Akan indigenous farmer has been instrumental in the growth of the cocoa industry. According to United Nations Development Programme 2023, Ghana is currently the second largest cocoa producer in the world contributing 25% of world production. Coupled with Cote D'Ivoire as the leading producer, the Akan of West Africa make an impressive contribution to cocoa production in the world. Considering that the cocoa plant is a native of South America and not West Africa, makes this achievement even more remarkable. How did the Akan gain such knowledge on an imported plant to dominate world production?

According to Danso-Abbeam et al. (2021) cashew production in Ghana has increased from 3,571 tons in 1997 to 232,834 in 2015. According to the Alliance (2023), Ghana currently produces 200,000 tons of raw cashew nuts and is one of the most promising producers in Africa. Again, the cashew producing belt lies within the Akan lands of Ghana.

Quality products also ensure sustainability, and the Akan are adept at producing the highest quality cocoa and cashews in the world. It takes proper soil and product management skill to produce world class products. The quality of Ghanaian produce is increasing demand in the international market especially cocoa, pineapple and yam (Kleemann, 2016; Statista, 2024; World Bank, 2023; Asare, 2022). The rich soils of the former Gold Coast produce high quality and sweet juicy pineapples (Kleemann, 2016). According to the website of Swiss company Lindt & Sprüngli, Ghana's cocoa fruits are of the "highest quality" due to their "higher fat content and low breakage rate". It is a key ingredient for Swiss chocolate and confectionary produced by the company (Lindt & Sprüngli, 2024). Cadbury's parent company, Mondelez, has ongoing partnerships and initiatives in

Ghana because Ghanaian cocoa is one of its prized ingredients for chocolate (Cadbury & Mondelez, 2024). The West African countries have dominated the production of cocoa for many decades. Smallholder farmers in West Africa produce 70% of the world's cocoa. Côte d'Ivoire and Ghana are the largest producers, followed by Nigeria and Cameroon (Statista, 2024). Ghana also exports yam to Europe, USA and Africa and is the third largest producer in the world. Consumers prefer the sweeter taste of Ghanaian yam, especially the Puna variety, which is often difficult to find during certain seasons because of high demand. In 2021, Ghana exported US\$ 48m of yam (Asare, 2022).

The examples of oil palm, cocoa and cashew, yam and pineapple production provide support for the exceptional skills of Akan farmers, their ability to sustain growth, sustain quality, sustain land fertility, and land ownership practices that ensure availability of land for farming. According to (GHANA 2019), 44.1% of households in Ghana own or operate a farm and of this number 49.1% are women. This is evidenced by the thriving Akan farmers in the modern Ghanaian economy. The survey also indicates that a large proportion of the food consumed by most households, particularly in rural localities, is from their own farms.

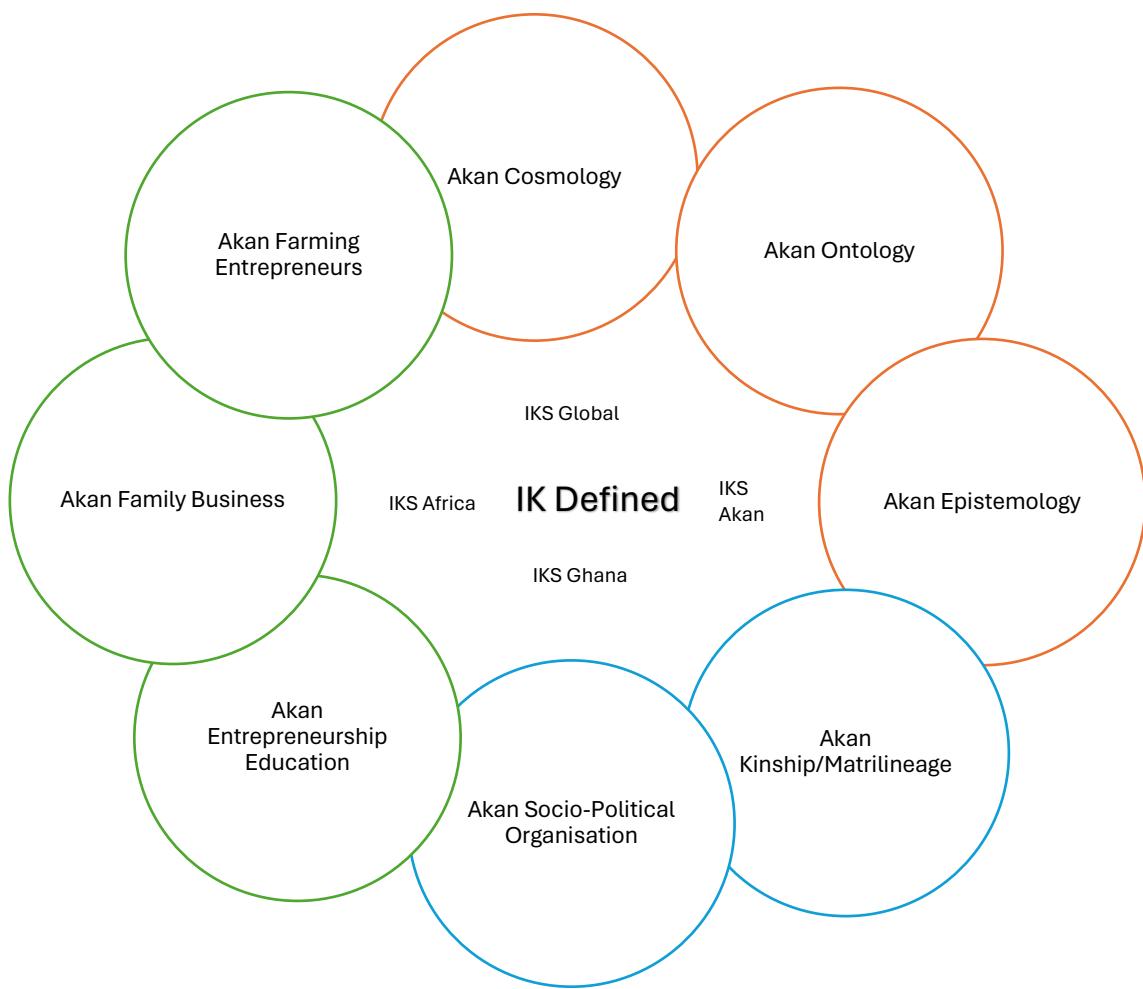


Figure 2. 3: Research Body of Knowledge

Figure 2.3 is the diagrammatic representation of the body of knowledge considered in this research.

2.6 Research Gap

Although in recent years much research has been conducted on indigenous knowledge, little attention has been given to individual ethnic groups. The research has been conducted on a broad scale, yet Africa as the second largest continent consists of hundreds of ethnic groups, languages

and cultures, each with its own indigenous knowledge systems. Progress has been made in moving away from the Eurocentric view of indigenous knowledge but more focussed research is required on investigating the indigenous knowledge of individual ethnic groups such as the Akan. The research will focus on Akan indigenous entrepreneurship knowledge systems and its contribution to business success in Ghana's modern economy.

In the case of the Akan, philosophy impacts the knowledge characteristics as well as the Akan indigenous personhood. Since humans embody knowledge, in the study of indigenous knowledge and its transfer to future generations, it is equally important that the study identifies the indigenous Akan. Not all Akan are indigenous and therefore not all Akan embody indigenous knowledge. In Ghana's dual educational system, formal (British educational system established by colonial government) and informal (indigenous educational system), an Akan is not necessarily an indigenous Akan. Therefore, to accurately determine whether a body of knowledge held by an Akan is indigenous, it is important to determine whether the person embodies the identifying marks of indigeneity. Although the literature highlights the key characteristics of an indigenous Akan, the review did not identify any research that paid attention to identifying the indigenous characteristics of the participants in detail as part of the research design. Therefore, as this research investigates Akan indigenous entrepreneurship knowledge, the indigenous characteristics of the participants will form a key part of the investigation.

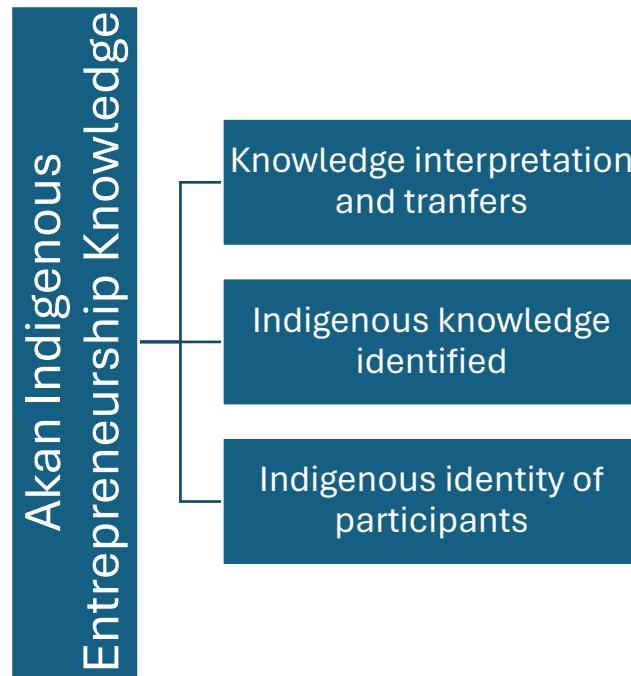


Figure 2. 4: Knowledge Relationships - Research Gap

In the study of Akan indigenous entrepreneurship knowledge, there is a relationship between the indigenous identity of the entrepreneurs, the body of knowledge they hold and the interpretation of that knowledge. The research utilises section A of the questionnaire to explore indigenous identity and section B to explore the key knowledge systems held by the entrepreneurs.

2.7 Chapter Summary

Chapter 2 has reviewed literature on indigenous knowledge at two major levels. The initial part of the review defined indigenous knowledge and then considered indigenous knowledge on a global, African, Ghanaian, and Akan level. This provide some context on how indigenous knowledge is being used on a global scale as well as dealing with some of the challenges being faced by indigenous knowledge. The second section of the literature review delves deeper into who are the

Akan and their indigenous knowledge systems. It covers Akan cosmology, ontology, and epistemology then considers Akan knowledge in practice such as lineage, leadership, economy, and education. Much space has been given to Akan knowledge systems in order to set a proper context that will inform the research and ensure accurate interpretation of results.

In Ghana, indigenous knowledge in business is practiced at the small and medium scale level. Indigenous businesses are mostly sole proprietors and small, medium family businesses and partnerships operating in the informal sector. The question could be asked whether such knowledge could be industrialized. Certainly, all knowledge can be industrialized but industrialization as has been presented by the west almost defeats the purpose of indigenous knowledge. Industrialization has largely been responsible for the climate crisis that the world is now facing, and unfortunately African communities are being negatively impacted by climate change. Indigenous knowledge was largely created to support the earth's ecosystems (Vijayan et al., 2022; Nakashima & Roue, 2002). As the world grapples with climate change, indigenous knowledge will become increasingly more important in dealing with some of the challenges. It is therefore questionable whether western industrialization should be the direction for indigenous knowledge. The two philosophies do not align. However, the industries covered by this research are projected to grow globally as consumers seek for alternative products. The question is how the government of Ghana and family businesses position themselves to take advantage of this opportunity without compromising the competitive advantage of such indigenous products.

The review covers a period of 200 years from Bowdich (1819) to modern writers in the 2020s and more specifically recent non-western researchers. Over the past few decades non-western researchers are tackling the stereotypes, branding, misconceptions of indigenous knowledge and

correctly situating indigenous knowledge contributions to scholarship.

Chapter 3: The Research Methodology

3.1 Introduction

The research methodology is defined as the “theory of how research should be undertaken including the theoretical and philosophical assumptions upon which it is based and implications of these for the methods adopted” (Saunders et al., 2023:145). The chapter covers the current western research philosophies and its connected methods of knowledge acquisition. Based on these considerations, appropriate philosophies to underly the research is selected. This informs the methods of knowledge acquisition most aligned with the research and therefore the research design. The chapter considers briefly possible areas of conflict with Akan philosophy that may impact the research results. It also covers in some detail the methods of data collection and analysis and interpretation with justification of the methods chosen. In this research, careful thought has been given to the philosophy of the participants. To apply epistemological methods which are not closely aligned to the subjects of study would be problematic and lead to erroneous results. Consideration of Akan epistemology is therefore critical for this study.

3.2 The Research Philosophy

Research philosophy is defined as the “system of beliefs and assumptions about what constitutes acceptable, valid and legitimate knowledge; the nature of reality or being, and the role of values and ethics in relation to research” (Saunders et al., 2023:145). Philosophy can therefore be seen as the underlying assumptions of both the participants and the researcher concerning the research being carried out. Due to the nature of the research, a larger portion than usual is spent on the philosophy section. It is important to look at Akan philosophy, as well as western philosophy and then consider

the intersections.

Knowledge is defined as “All intelligible ideas, information, and data in whatever form in which it is expressed or obtained” (Hess and Ostrom, 2007:7). A suggested hierarchy to knowledge building is data to information to knowledge to wisdom. In the academic world knowledge often has a more theoretical orientation and refers to an explanation of a phenomenon being studied.

3.2.1 Ontology

Ontology is a sub field of metaphysics and focuses on the nature of reality. Ontology “deals with what can be rationally understood” (Poli, 2010:1). The ontology or reality of the participants is critical for understanding the research data. In western thought, there are two major positions in terms of how the world is seen. The first is positivism (realism) which is “a philosophical paradigm that is centred on the ontological belief that reality is measurable and encompasses only what one can directly observe” (Shannon-Baker, 2023:383). Positivism values observation and analysis utilizing the scientific method. The second philosophical position is idealism (relativism, perspectivism, interpretivism, constructivism or constructionism) which recognizes the importance of individual perspectives, that the world exists in reality, but that reality is experienced in different ways by people. Each person therefore knows the world through his or her own perspective, reality is personal (Robinson, 2024).

3.2.2 Epistemology

Epistemology is concerned with the knowledge of individuals and societies, the nature of the knowledge, how that knowledge is acquired, and the tools and methods used to acquire the

knowledge (Buckland & Chinn, 2015). Historically, there has been two major debates regarding the theory of knowledge. One of them concerns the question of whether knowledge is innate i.e., present in the mind, from birth or acquired through experience. To the Akan, a child is a spiritual being entering the world and comes with a body of knowledge from the spiritual world, innate knowledge. However, from birth, the physical senses of the child also begin to develop through which the child gains knowledge from its environment. For the Akan, knowledge is both innate and experiential.

The second historical problem with the theory of knowledge is the origins of knowledge or the methods of acquiring knowledge. Again, there are two opposing camps. Plato advocated rationalism and Aristotle advocated empiricism. The rationalists claim that knowledge is acquired through the mind by deductive reasoning. In terms of the researcher's relationship with the knowledge, the rationalist view is that the researcher is a neutral observer and takes a total objective stance in the research.

Empiricism, advocated by Aristotle states that all knowledge is gained through the senses. All the senses are used to collect data from the environment. This data is then analyzed to form conclusions. The process of moving from data collection to theory or knowledge formation is known as induction (Fumerton et al., 2024). Since, the research deals with adult participants and specialized bodies of knowledge, the empirical approach is appropriate. The research is dealing with indigenous knowledge, which is primarily of oral tradition, therefore the qualitative research approach is also appropriate. In Akan, observation rely on all the five senses of sight, smell, taste, hearing and touching to make sense of the world around them (Arthur, 2017; Safo-Kantanka et al., 2023).

An alternative approach to research is that of relativism, a philosophical combination of idealism (empiricism) and humanism. To the relativist, the world is real but experienced personally through the perceptions and influenced by beliefs and values. In relativism, the researcher is not outside the system but an integral part of the situation under study (Baghramian, 2015). The researcher also does not ignore the subjective and creative but includes facts with values.

The Akan theory of knowledge does not fit fully into any of the western philosophies. There is partial alignment to positivism, idealism, and relativism. To the Akan, knowledge exists on multiple levels. Knowledge is both physical and spiritual, it is innate and experiential. Knowledge includes values, it is emotive and logical. At the same time knowledge has order, it is physically real, but it is also creative and abstract. Although the Creator Odumankoma created all knowledge in the universe, and all knowledge originates with him, the Akan also believe humans can create new knowledge. In alignment with the Akan philosophy of knowledge, the individual is also deemed to consist of both the physical and the spiritual. This perspective differs markedly from the western knowledge theory which has led to much misinterpretation of Akan knowledge systems (Antubam, 1963; Safo-Kantanka et al., 2023). In all levels of Akan knowledge theory, the Akan is a rationalist, an empiricist and a relativist.

In Akan knowledge systems, the individual is fully emersed in the knowledge, its creation and transfer. This can be clearly seen in the methods identified in knowledge formation. For example, stories, proverbs, songs, dance, ceremonies, art forms, adinkra, architecture etc. form part of everyday life of the people. These are methods of knowledge formation and transfer that not only impact the logical mind but also evokes an emotional response in the mind. It is difficult to dance, sing, tell or hear a story, take part in a ceremony without an emotional response. It is practical and

immersive knowledge. Therefore, to understand the data, the researcher, must immerse or enter the world of the participants to see their perspective. The axiological implications here is that the researcher takes an empathetic stance and their own values then play an important role in the research process (Saunders et al., 2023).

3.2.3 Pragmatism

Pragmatism is a philosophical position that is of more practical value than the debate on the nature of knowledge. Pragmatism takes the position of what is the most important and useful. According to the pragmatists the practice of enquiry is a social activity. There is always a problem behind research and the objective of the research is to solve the problem. Warranted assertions, competent inquiry and knowledge are outputs of the research. Pragmatic philosophy centralizes the usefulness of the knowledge in practice for the community (Legg, 2008).

In terms of practicality, the researcher is a pragmatist; scientific research should have its application in practice. The translation of the research into practice is in direct support of the robustness of the research. The researcher is a practitioner moving into academic research. Of the many pragmatic ideas discussed in academic research, one of the most appealing to the researcher is Noddings's feminist philosophy of education (Noddings, 2009). Bridging the fields of philosophy, education, and ethics, Noddings advances a feminist approach to holistic education which values community and reciprocal care as integral to knowledge acquisition and practical application. Such work draws a strong link between the academic and practice. Still, Akan philosophical thought goes further to underscore a philosophy of education that is holistic and pragmatic in ways that encapsulate ecology and spirituality as well as other facets of IK. Akan philosophy makes a clear connection between the physical and the spiritual (Appiah, 2004;

Wiredu, 2004). Such is the strength of this understanding that it pervades every sector of Akan society. This worldview, which is similar to that found in other African cultures (Oluwole, 1999), is vastly different from that of the pragmatic worldview which provides no certainty of reality and more akin to the realist worldview.

Table 3. 1: Summary of Research Philosophy

Issue	Summary Philosophical Stance	
Metaphysics	The nature of being or reality (worldview)	Idealism Relativism
Epistemology	The theory of knowledge and understanding	Empiricism and Interpretivism
Methodology	Framework for the research, reflecting the researchers metaphysical and epistemological stance	Empirical/Idealism/interpretivist approach
Methods	Detailed approach to the research:	Qualitative/interpretivist/inductive
	<ul style="list-style-type: none"> • Data collection 	Semi structured Interviews Observations over time Documentation
	<ul style="list-style-type: none"> • Data analysis 	Thematic Analysis Inductive
	<ul style="list-style-type: none"> • Data Interpretation 	Interpretivist Evaluation Explanation

		Comparison
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In the light of the philosophical discussion, Table 3.1 provides a summary of the philosophical stance of the research. The research will follow the interpretivist philosophy or theoretical perspective. The methodology will be empirical, utilizing the qualitative methods of semi structured interviews to collect the data. The researcher is interested in the experiences, beliefs and values of the participants as Akan entrepreneurs. Semi structured interviews will be used to collect data about their experiences as entrepreneurs in the modern Ghanaian economy. The research methodology is represented by Saunders et al. (2019) research onion, with the outer two layer representing the research philosophy or theoretical perspective and the inner layers the research process (Figure 3.1).

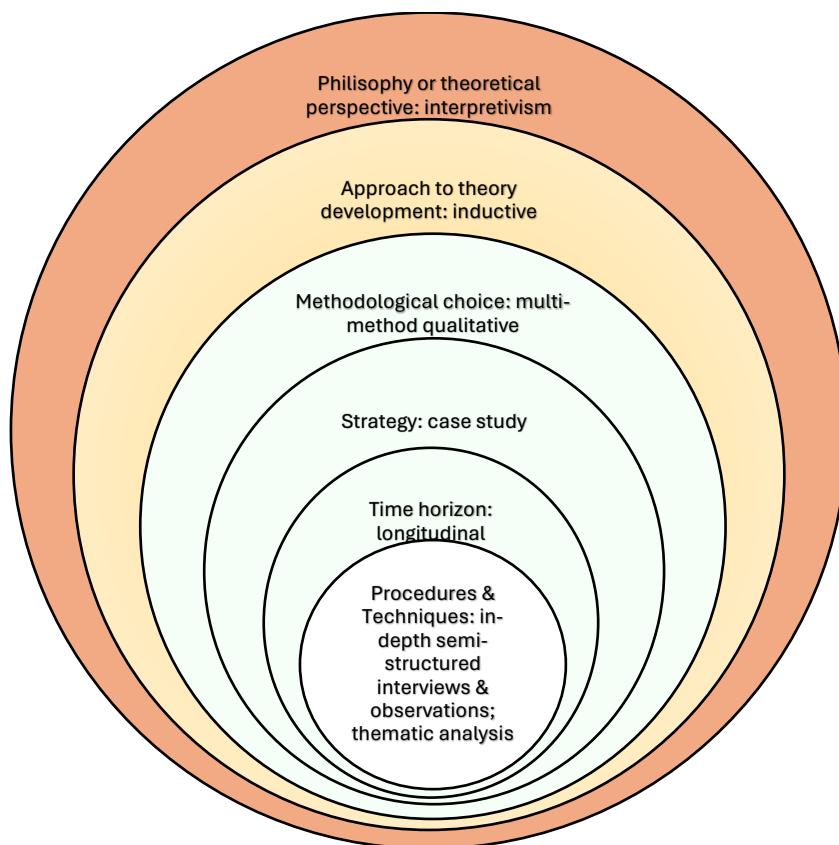


Figure 3.1: The 'research onion' developed from Saunders et. al., 2019.

3.3 Research Methods

Method refers to the processes undertaken to conduct the research, particularly how the data is collected, analyzed, and interpreted.

3.3.1 Data Collection Methods

Data is anything that can be used to answer the research question and is identified through the senses. Akan knowledge systems are transferred from generation to generation primarily through oral traditions. Knowledge is transferred through many modes including informal conversations, storytelling, proverbs, prose, music, fashion and textiles, traditional symbols such as adinkra, arts and crafts, festivals, and rites of passage (Amponsah, 2023). Akan indigenous education is primarily immersive, where students learn through participation in real activities with parents, family, and community members (Adjaye & Aborampah, 2004). In line with the oral traditions of the Akan, semi-structured interviews were used as the main data collection method. Observations and documents were used only to support the validity of the interview data.

Interviews provide greater flexibility than questionnaires and allows probing for further information and can be applied in a variety of different settings. Interviews can be structured, unstructured or semi-structured. Structured interviews allow for closed formats where specific answers may be required. Unstructured interviews allow the researcher and participants to dig deeper into the conversation. Semi-structured interviews contain both structured and unstructured sections to the interview. Face to face interviews can be carried out in various locations. For this research face to face interviews were conducted on work premises both in a sit-down interview and while inspecting the business. All the sit-down interviews were recorded.

Observation is utilizing the senses to gather data pertaining to the research being conducted. Observation was a secondary method used in the research. All interviews except one was conducted on the business premises of the participants thus giving the opportunity to observe the business in action for a couple of hours. These observations support the validity of the interviews, confirm the viability of the businesses and the quality of the products. In the case of the farmer participants and the soap manufacturer samples for taste and use were provided to the researcher. Observations were maintained throughout the period of the research through in-person visits to the businesses and maintenance of relationship with the entrepreneurs to confirm business maintained their going concern status. The researcher was also invited by the knowledge keepers to Manhyia Palace on a festive occasion to experience and observe Asante culture at its best on display. This was an overwhelming experience that validated the data collected on Asante knowledge systems.

In this research, it was important to go back in time as much as possible to look at pre-colonial culture as colonization has diluted much of African culture. The researcher was able to access books written by early European researchers, the earliest dating back to 1819, “Mission to Ashantee” by Edward Bowdich. Such manuscript has provided remarkable insight to what Akan and Asante was like 200 years ago. The literature review therefore covers a period of 200 years using seminal works during this period. The consistency of accounts supports the words of the knowledge keepers that the Asante have maintained the purity of their culture. Thus, what we observe today in terms of indigeneity is reliable.

3.3.2 Other Data Collection Methods Considered.

Several other methods of data collection were considered before selecting semi-structured interviews and observation as the methods for the study.

Self-completion questionnaires are designed to be completed by the informant without any help from the researcher. As a form of communication surveys and questionnaires are foreign to the indigenous Akan. Therefore, to use this method would require complete training and sense making for the research participants. Even in western contexts where surveys and questionnaires are a normality, completion rates can be low and problematic, so in an indigenous context, the completion rates can be assumed to be even lower. A possibility would be to adjust slightly and aid with the completion of the questionnaire. A research assistant would be needed to assist the participants in completing the questionnaire. Another level of trust would need to be developed between the participant and the research assistant, the cost would be high, and it would still require face to face meetings to complete the questionnaire.

Focus groups are usually experts coming together to discuss a particular subject of the research in order to reveal their opinions and beliefs. During the interview with the knowledge keepers, an unintended focus group of two knowledge keepers organically developed to provide a more detailed answer to difficult questions. Bringing the participant entrepreneurs together to discuss their opinions on indigenous entrepreneurship would have added substantially to the research. However, this method was not used because of time and space. The participants are widely scattered across Akan territory, and these are extremely busy people who were gracious enough to grant hours of their time for individual interviews. To request that they travel to be in the same space for a focus group was considered overstepping the mark of respect and reasonability and as such the researcher did not pursue this method.

Grounded theory is a research method that is subdivided into phases with each phase informing the next. For each phase data is collected, examined, coded, and reflected upon in order to establish categories as a step towards developing a theory. Although this method is sound, it was doubtful whether it could yield any better results than interviews. The major issue with this method is the time needed to conduct each phase of the research for each participant. Time for both the researcher and the participants is limited as such this method was rejected.

Action Research is solutions in action. Solutions are applied to specific problems and the process is constantly monitored and evaluated to measure its effectiveness. Action research depends mainly on observation and is for a particular situation in time, its application is limited to that situation and cannot be generalized. Action research is focused on the present and not the past. This method was deemed unsuitable for the research as the entire journey of the entrepreneurs, past, present, and future is important for the study.

Ethnography and Ethnological research are similar in their method except that ethnography focuses on a single culture and ethnology on multiple cultures. Ethnography is a research method with extensive fieldwork with the researcher immersed as an observer, and sometimes as a participant observer (Johnstone, 2007). The researcher completes their observations by participating in the daily life of the participants. In this research, time and the number of applicants is the limiting factors for rejecting this method.

The Delphi Method is a multilayered approach used on expert participants. Each level consists of a series of questions which are then scored, and the results used for the second and third round of questions (Taghipoorreyneh, 2023). This method is used to identify consensus between the

participants. There are several problems with this method for the research, namely time, the scoring of the statements, the method is future focused and multi layered. The method is also unlikely to yield the depth of data that can be obtained from interviews. It is therefore not appropriate for this research.

In conclusion, the use of qualitative semi-structured interviews was selected as the most appropriate data collection method. In addition, observations and documentation were also used to support context and understanding.

3.4 Development of the Research Questions

Table 3. 2: Research Question Formation

Seminal Literature	Research Question	Explanation or Sub questions	Associated Interview Questions
GHANA (2019) Antubam (1963) Arthur (2017) Kwadwo (2002) Rattray (1927) Safo-Kantanka et al. (2023) Oduyoye (1995) Adjaye &	Who are the Akan indigenous entrepreneurs of modern Ghana?	Due to colonization, being an Akan does not necessarily qualify one to be an indigenous Akan. In modern Ghana, there are two groups of Akan. 1) Those who are Akan by blood only. 2) Those who are Akan by blood plus identify with Akan indigenous knowledge systems.	Section A Family background 4. Age 5. Marital status 6. Children 7. Age of Children (years) 8. Have you formerly educated your children? 9. To what level? 10. Apart from your immediate family (spouse & children), who else do you care for?

Aborampah (2004) Badejo 1998	This is the group that is the focus of this study.	<p>Ethnicity</p> <p>11. Which ethnic group do you belong to? If mixed, please identify all.</p> <p>12. Where is your hometown?</p> <p>13. Is that your mother's hometown?</p> <p>14. Are you patrilineal (father's line) or matrilineal (mother's line)</p> <p>Languages spoken fluently.</p> <p>15. How many languages do you speak fluently?</p> <p>16. Name them</p> <p>17. Can you read in any of these languages? Name them</p> <p>18. Can you write in any of these languages? Name them</p> <p>Attitude to Risk (Finance)</p> <p>32. How did you get money to start your business?</p> <p>33. Do you have a loan or lean on the business?</p> <p>34. Have you ever used a loan to support the business?</p> <p>35. Do you use credit for purchases?</p> <p>36. How would you rate your attitude to risk?</p> <p>37. What is your reason for your approach to risk</p> <p>Gender</p> <p>31. Male female</p>
Bowdich	Can Indigenous Akan knowledge	Section B What Akan indigenous Story telling Questions.

(1819)	be used to create	entrepreneurship	
Rattray (1927)	viable	knowledge (AIEK)	1. Tell me about your childhood, who raised you?
Arthur (2017)	businesses in	systems are used by the	What did they do for a living? What business skills did
GHANA (2019)	the modern	participants in their	you learn from them?
Ainnyoade et al. (2017)	Ghanaian economy?	businesses?	2. Tell me about how you started your business. At what point did you introduce professionals into the
Ochonu (2018)		How is the Akan	company? What happened? How did you manage the
Ozainne et al. (2014)	Can Akan indigenous	indigenous entrepreneurship	emergence of the traditional and professional knowledge systems?
Danso	entrepreneurship	knowledge (AIEK) being	3. What are you doing to make sure the traditional
Abbeam et al. (2021)	knowledge systems (AIEK)	used within the modern Ghanaian economy?	knowledge you used to create the business is not destroyed but continues in the company?
	be used to create context driven employment within the modern Ghanaian economy?	Where do intersections occur between Akan indigenous entrepreneurship knowledge (AIEK) and western knowledge within these businesses?	4. What is the way forward for the company?

3.4.1 Identifying Indigeneity

The Ghana Living Standards Survey (Ghana, 2019) offers some insightful statistic in the role of indigenous education in employment and by implication the economy. In Ghana, the formal system of education continues to be the British educational system that was established during the colonial era, although American influences have been applied. The system runs from pre-primary

through to tertiary level and is largely funded by the government. The private sector operates within the formal education system. Anything outside of this system is indigenous and is referred to as the informal education. The survey indicates that 91% of the population have education at secondary level or lower. In Ghana, a secondary school graduate has limited employment possibilities and usually needs to go on for further training, either a trade or tertiary education. GHANA (2019) also indicate that 71.3% of the employed population work in the informal economy with only 28.7% working in the formal economy. The informal economy refers to 'all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements' (ILO, 2012). It is important to note that informal businesses operate outside the tax laws but the goods and services they provided are considered legitimate and does not include illegal business products and services. The formal economy, which is regulated by business law, is unable to generate sufficient jobs for the working age population. With the limited job availability, it can be assumed that those employed in the formal economy will be mainly those with tertiary education. Those with secondary school education or lower, are going into the informal economy for work. More interestingly, the education of the employed points to the important role indigenous education plays in the economy. 19.9% of the employed population has no formal education, 54.2% has basic education (kindergarten, primary, Junior high school/junior secondary school, or middle school) and 14.2% have senior secondary school/senior high school or secondary school (GHANA, 2019). With this limited formal education, it can be assumed that these individuals will largely be using their indigenous knowledge in their employment. Interestingly 66.7% of those employed in the informal economy were aged 20-39 years, meaning the informal economy continues to be the biggest absorber of youth employment (Ghana, 2021). In the light of the free secondary education for all Ghanaian students by this current administration, it will be interesting

to see the impact of that policy on the above statistics. However as stated, at secondary level, students are still not adequately prepared for employment.

The research assumes that for secondary school graduates going into the informal sector, much of their knowledge will be indigenous. For secondary school students going into entrepreneurship, most of their entrepreneurial knowledge will be indigenous. In Ghana, secondary schools do not teach indigenous entrepreneurship therefore whatever knowledge the student holds, was likely learnt from outside of the formal education system i.e. indigenous knowledge. Following this line of argument, we determine that an entrepreneur with the education level of secondary school or lower uses primarily indigenous education for their business. However, education alone cannot determine an indigenous person, other key factors are also important and should be considered. Obvious identifiers such as ethnicity and language were included. When added to education level, provides a good indication of indigeneity. However, the research went further to explore certain key characteristics that are often exhibited by indigenous people. Indigenous Ghanaians are very community oriented; the extended family system is very strong. This is based on the Akan philosophy of the trinity of the individual, lineage and therefore the extended family (Antubam, 1963; Arthur, 2017). Therefore, Indigenous people tend to take care of more than just their immediate family, extending themselves to support many other people in their communities. The research therefore asked the question of who else do you take care of apart from your spouse and children. The research also explored another characteristic of indigenous entrepreneurs, the attitude to risk. Due to the expanded responsibilities or community focus of indigenous people, they rarely take on the risks associated with debt. Financial borrowing is rarely done, money for business usually comes from family and friends at no interest. Therefore, questions on attitudes to

risk are also included as factors to identifying indigeneity. According to the GHANA (2019), less than 20% of the population borrow from financial institutions.

3.4.2 The Entrepreneurial Journey

The initial section of the questionnaire consisted of structured questions. Identifying indigeneity in the entrepreneurs was important in ensuring the major knowledge systems are Akan to meet the criteria for the identified gap in the research literature. The research was to focus specifically on Akan indigenous knowledge and its use in entrepreneurship and not simply indigenous knowledge. Some research has already been done on cross cultural indigenous knowledge and its business use, cross continental and cross-national research (Ajei, 2001; Dei, 2015; Gumedede et al., 2021; Ogunyemi et al., 2022). However, research focussing on single ethnic groups and the use of their knowledge for entrepreneurship is limited. Africa is the second largest continent in the world and the most diverse in terms of ethnicity (Wiafe, 2023). Ghana alone has over 40 languages, each language is a body of knowledge, culture and skills that are unique to that ethnic group and therefore in business offers a competitive advantage. Cross continental and cross-national research identify the common factors but neglect the competitive advantage which is critical for business success and sustainability.

Since the researcher is an Akan and understands the culture as well as speak the language, the research is focused on Akan indigenous entrepreneurs. The literature review into the topic of indigenous knowledge and entrepreneurship revealed that the Akan have always been prolific entrepreneurs especially in the areas of farming, trading and the arts and crafts. The literature review covered a period of two hundred years from 1819 to 2023. There is ample evidence that the Akan have been entrepreneurs for centuries, have a body of entrepreneurial knowledge that is now

operating in the modern Ghanaian economy (Bowdich, 1819, Arthur, 2017; Fosu-Mensah et al., 2021; Buame et al., 2013; Phasha, 2017; Agbenyega et al., 2017).

Section B of the Questionnaire therefore explored the translation of the Akan indigenous knowledge into business practice. This section was semi-structured. The entrepreneur was asked to tell the story of their entrepreneurial journey, covering their training, the establishment of their business and the future. They were asked to talk about their business operations including key areas such as finance and human resource and transfer of knowledge to the next generation.

Since Ghana has a dual economy and a dual educational system, it was decided to consider the intersection between the two sectors. The formal and informal economy; the formal and informal education system exist parallel to each other but also intersect. For example, in a modern economy it is not likely that the indigenous entrepreneurs would survive if they do not learn modern technology. So, in looking at indigenous entrepreneurship, it becomes necessary to consider the intersections between indigenous knowledge and western knowledge.

3.5 Sampling

In total, nine entrepreneurs participated in the in-depth semi-structured interviews consisting of four farmers, a publisher, a fashion designer, a soap manufacturer, a roofing constructor, and a traditional medicine practitioner. Saturation in terms of repeated common themes emerging after the first seven interviews determined the cut-off point. These seven included, the farmers, the traditional medicine practitioner, the roofing constructor and the soap manufacturer. These seven entrepreneurs provided detailed information regarding their background and business operations

with emerging major themes in community centeredness, indigenous education, indigenous financial strategies, indigenous labour strategies, intersections between indigenous and western knowledge systems, business skills, business development, and knowledge transfer. However, the opportunity to interview two further entrepreneurs, the publisher and fashion designer became available. The results from these interviews reveal similar common themes and at this point, the researcher determined the point of saturation had been reached.

3.6 Ethics Protocol

The research was conducted in line with the ethics protocol of Reading University. Each participant received a consent form, participant information sheet, data protection information sheet and a copy of the interview questionnaire. Due to the limited English proficiency of some of the entrepreneurs, additional layers were added to secure the participation of the entrepreneurs. The researcher took the opportunity prior to the interviews to explain the protocol to the entrepreneur in the Twi language and opportunities given for questions. Permission was sought from each entrepreneur to record the interviews for accuracy of translation. The researcher committed to an ongoing relationship and communication with the entrepreneurs where possible and the provision of a copy of the completed thesis. The researcher also included as part of the research design a final visit to the entrepreneurs for final approval of inclusion in the research. Due to the part time nature of the research, the researcher evaluated the cultural context to provide the entrepreneur with a final update on progress and gain the go ahead for inclusion. This step has been included purely as a mark of respect for the relationships that has developed between the researcher and the entrepreneurs.

Finally, the researcher has taken every step to ensure the protection of intellectual property of the entrepreneurs. The trust relationship developed between the entrepreneurs and the researcher meant certain business information was provided during the interview which would render the entrepreneur vulnerable. The researcher has excluded such information from the analysis. These steps have been taken as the interviews identified attempts by competitors to derail some of these indigenous businesses. The purpose of this research is not to put any of these businesses into competitive dangers.

3.7 Interview Implementation

This research is empirical with the collection of primary data. Each participant was interviewed face to face in their place of work. For construction, the interview took place at the business headquarters, for the soap manufacturer at the factory, for the fashion designer at the studio, for the publisher at the printing shop. In the case of the farmer participants, visits were made to the farms, accompanied by the farmers which provided further insights into farming practices and sampling of products. The only interview conducted at home was the indigenous medicine participant.

All interviews were conducted in the Akan language of Twi. Permission was requested to record each interview so that it could be transcribed into English. Since the researcher speaks Twi fluently, it facilitated both the communication with the participants and the transcription. Each interview was doubly recorded on a computer and on a Sony recorder. The data was also later placed on an external drive as well as saved on OneDrive. The interview questions were divided into two sections. The first sections provided for short questions about the participants social, economic,

education and religious background, the questions were structured due to the need to identify indigeneity in the entrepreneurs. The second section of the interview was more detailed and focussed on the participants as entrepreneurs. Questions explored their education and training, entrepreneurial journey, farming practices, financial capital, business operations, challenges, successes, and the future (Table 3.2). This section was semi-structured with initial question to lead the conversation but allowing the entrepreneur to lead into new and relevant areas. This flexibility ensured trust and unearthed details that may not have been apparent in a structured interview. Responses in section two were mainly in story telling mode.

Section A was necessary because being an Akan does not mean that you are an indigenous Akan. In modern Ghana, there are some Akan that do not identify as indigenous Akan. They do not relate to the culture, speak the language, or have any familiarity with the indigenous knowledge systems except for one, they belong to their matrilineal family. Such individuals may be highly educated in western knowledge and associate more with the western lifestyle than with the Akan ways of living and knowing. For this reason, certain controls were included in the questionnaire to ensure the participants were truly indigenous Akan. Western education was limited to no higher than secondary level. Community engagement, language skills, family were explored as these provide indications of indigeneity.

Interviews were planned for a duration of one hour with build in flexibility due to the communication style of oral traditions. This extra time allowance was critically important in understanding context and identifying themes. In oral traditions, storytelling is an important mode of communication. Information is transmitted amid stories, not only to make it interesting and engaging but easy to memorise and to ensure that it is understood in the right context. Thus, ensuring that the outcome

of receiving and maintaining the information in its entirety and not just the bare facts (Antubam, 1963; Oduyoye, 1995; Adjaye & Aborampah, 2004; Agbenyega et al., 2017; Arthur, 2017; Prempeh, 2022). Lessons are quickly learned and more easily applied. When a question is asked, a story is told to answer the question, this is typical of oral traditions. Extending the time for each interview ensured questions were answered fully.

Participant numbers were determined by reaching the point of saturation. Repeated strong themes were emerging with consecutive interviews and no new themes were occurring. Even when, a participant whose education was above secondary level was interviewed, similar themes emerged indicating that saturation point had been reached.

For further understanding and context of Akan history, ontology and epistemology, interviews were conducted with royal historians of the Royal House of Asante at Manhyia Palace and Agona. Interviews were conducted with Osei Bonsu Safo-Kantanka, Kojo Arthur at Manhyia Palace and Osei Kwadwo at Agona. E. Asamoah-Yaw also provided documents to support the research. These interviews were unstructured. As topics of interest were introduced into the conversations, the royal historians took control of the discussion. The researcher would intervene occasionally to seek further clarification or redirect the conversation to an area of interest. Although unintended, at one point a focus group was formed with the two historians combining their knowledge to inform the context of a particular historic event.

3.8 Data Analysis

The analysis of data requires close inspection in order to establish its nature and its content.

Analysis explores the data beyond what is immediately obvious. In so doing it is important to take a holistic view and focus on the data within its context (Remenyi 2021). Analysis is always performed on data and conducted with the research question and aim in mind. In Akan this is referred to as *Hwehwemudua* (measuring stick), an Adinkra symbol of critical examination, rationality, knowledge, quality control, excellence, and perfection (Arthur, 2017).

The questions that were in mind as the analysis was conducted was for section A, does this entrepreneur meet the indigeneity criteria set out in section A of the interview questionnaire? Secondly, what are the major themes emerging firstly from an interview and then from all the interviews? Is there triangulation between section A and B responses? The researcher also had in mind business variables/functions such as finance, marketing, sales, HR, sustainability, gender, knowledge transfer etc. The first stage was the analysis of each interview separately. This focused on identifying the way the entrepreneur handled the business functions using indigenous knowledge. Also important to the researcher was the intersection between the use of indigenous knowledge and western knowledge for managing the business and how this was controlled to create equilibrium. The researcher did not focus on individual words but rather on seeking understanding or the meaning of what was being said contextually. For example, the entrepreneur may not mention the words financial management but will talk about how they acquired funds to cultivate tree crops or build a factory. They may not mention a value system of being risk averse, but they will mention that they have never borrowed money for the business and that the business has been built from internal resources. They may not mention immersive education but will describe their journey through childhood and working with parents in the family business but recognizing the skills gained through this process of education. Thus, the analysis looks beyond the words to the implied meaning.

The second stage of the analysis is the comparatives across all the participants to identify the themes that run through all the participants. Taking all the individual themes for each participant, it was input into an excel spreadsheet, parallel to each other, a column for each entrepreneur. The themes were then taken one at a time, finance, HR, sustainability, intersections etc. and compared, participant to participant. Themes that run across all participants were highlighted. Themes that run across all participants excluding a maximum of two participants were also highlighted. Of the nine participants four, were farmers, so specialized themes across this group was also highlighted.

Based on Akan philosophy of knowledge and transfer, it was important to take a holistic approach in analyzing the data. The creation of knowledge in Akan is flexible, varied and very creative and the same applies to the management and transfer of said knowledge. For example, consider the variety of ways Akan use to store and transfer knowledge; stories, proverbs, games, adinkra, arts and crafts, ceremonies, music and dance, architecture etc. This level of creativity means that in seeking Akan knowledge one cannot become fixated on individual words alone. All the senses must come into play to focus on the major themes of the data; therefore, the holistic view is important.

The transcription of the data from Twi to English was performed by the researcher who is fluent in Twi. Having also conducted the interviews, the transcription process provided a secondary opportunity for sense making and initial recognitions of themes. Data was transcribed from Twi to English using Microsoft Teams, two computers and headphones. Computer one would play the interview in Twi and the researcher would verbally translate into English, recording and transcribing in Microsoft Teams on computer two. The transcription was downloaded, saved, and cleaned. The process worked well and was relatively fast. The transcribed data needed significant cleaning due

to pronunciations of Akan words that were not recognizable by Microsoft Teams. However, the re reading of the narrative and corrections also deepened impressions on themes. This is version one of the transcribed data.

The second stage involved further careful reading of the transcribed data, version one, identifying business functions and the indigenous knowledge being used to support these functions. Intersectionality or the use of western knowledge in the business was also identified. These identified points were simply highlighted. When the researcher was sure the major themes were identified, a new version of the transcript would be saved. In this new version, all data not highlighted would be deleted, leaving only the highlighted data. This is version two. The original version one remains available in case there is a need to go back and recheck any information.

The third stage is the transference of version two for all the interviews into Microsoft excel for comparing. In Excel, the transcripts are placed side by side, one column per transcript. This alignment facilitated taking one theme at a time and moving across the spreadsheet to identify where it appears again. Firstly, the researcher was looking for themes that occurred in all the transcripts. Then for themes that occurred in seven out of the nine transcripts. Finally for themes that were common across the farming participants. A final version of the spreadsheet is created and unwanted data removed. With each step of re reading the volume of data was reduced making it increasingly easier to manage the data. This process of repetitive thematic analysis is aligned with oral tradition where repetition is the basic principle of knowledge accumulation and transfer.

3.9 Data Interpretation

Interpretation implies bringing meaning, explanation, clarification, and understanding, meaning that communication is not always obvious. In arriving at correct interpretations, context is critically important, and this is especially so with indigenous knowledge systems and various worldviews. Unless the underlying philosophies are understood, it is likely that wrong interpretations will be applied to the data. To this list the researcher adds context as a key ingredient, the absence of which things fall apart.

To support the interpretation of the data, the researcher uses explanations, evaluations, and comparisons all in the proper context. A significant amount of the thesis is used to explain context in which the indigenous knowledge exists and is applied. This is critically important due to the history of how indigenous knowledge has been treated in academia. Indigenous knowledge has been treated as a nonsense, by the western worldview with little understanding of the context behind the knowledge. Western philosophies of knowledge have been applied to indigenous knowledge to deliver results that are nonsense because the knowledge has been taken out of context, forced into a model that does not align with it (Boven & Morobashi, 2003; Chamlee-Wright, 1997; Quaynor, 2018; Keterere et al., 2019). This research seeks to ensure that what is written is set in proper context to inform meaning and understanding. The research evaluates the value of indigenous entrepreneurship in a modern economy. Often seen as traditional and static, indigenous knowledge systems of the Akan have none the less survived and are thriving as part of the modern economy of Ghana. The research reviews and evaluates the training, resources, and operations of IK to understand the reasons for its success and to challenge the current notion of indigenous knowledge being static. Equally important is the evaluation of the value systems of the

entrepreneurs. On the level of training, resources, operations, and philosophies the research looks at some striking differences as well as spaces of equilibrium where both knowledge systems intersect.

3.10 Chapter Summary

This chapter has described the methodology for the research. The chapter explored research philosophies with a general focus on positivism and relativism. The concept of reality and the nature of knowledge was explored. These western philosophies were compared to Akan philosophies of reality and knowledge and philosophical positions for the research was outlined. For its practical perspective, a short paragraph on pragmatism is also included. From the philosophical analysis, the underlying methodology of the research is identified as empirical, relativist and qualitative. The methods for data collection are also identified as qualitative face to face semi-structured interviews, observation, and documentation.

In summary a qualitative/interpretivist method of evidence collection is used due to the critical importance of insider perspectives. The process of data collection is dealt with in detail. Other methods considered for data collection are included with the reasons for their rejection. The process for data analysis is covered in detail and finally the process of interpretation. This chapter has highlighted the importance of context considerations at every stage of the research to arrive at contextually meaningful conclusions.

Chapter 4: Research Results

4.1 Introduction

Ghana continues to experience challenges with unemployment, especially amongst the youth, in spite of heavy investments in western education (Ackah et al., 2018; Dzisi and Odoom, 2017). At the same time, the informal economy, which is largely indigenous, appears to be thriving and yearly absorbs the majority of young people (Ghana, 2018; Ghana, 2024). Using Akan indigenous entrepreneurs, the research sought to fill the gap by identifying what indigenous knowledge systems are being used to create success. The aim, to investigate if AIEKS could be used as a viable pathway to context driven employment in Ghana's modern economy. The question therefore is can AIEKS be used to drive successful businesses within the modern Ghanaian economy?

This chapter reports on the findings of the research. It highlights the key themes that have been identified as contributing to the answering of the research question. The participant entrepreneur profiles are presented followed by the findings on their indigeneity. This is important to indicate that the body of knowledge held by the indigenous Akan participants is primarily Akan indigenous knowledge. The chapter then considers the main themes identified in the research, both primary and secondary themes. Some primary themes identified include a system of Akan indigenous entrepreneurship education, identification of primary educators, significant business skills, various indigenous financial systems and intersections between western and indigenous knowledge. Finally based on the results obtained, can the methodology of the research be justified. A chapter summary concludes the chapter.

4.2 Participant Profiles

Table 4.1: Participant Profiles

ID	Business Sector	Profile
ENT TM	Traditional Medicine	<p>ENT TM is an Akan and was trained by his father, a well-known traditional doctor, from his childhood. He began to take the knowledge seriously after the death of his father when he had to take over the practice. Realising that the business could not maintain him financially, he went back to school. Ent TM is formerly educated to university level and works professionally as a primary school teacher. He speaks several languages namely Twi, Bono, Hausa and English. He is married with three children, all of whom are being formerly educated. Ent TM identifies his faith tradition as Christian. In the practice of traditional medicine, Ent TM works only part time and charges according to the ability of the patient to pay. He currently offers his services across Ghana and Europe and is marketed through the recommendation of former clients. According to him:</p> <p><i>My father, who taught me didn't make money a priority and that has been the case since now, this is traditional medicine. It was left to him by his ancestors, and it wasn't a money matter.</i></p> <p><i>[ENT TM]</i></p> <p>Ent TM also carries responsibilities for other members of his extended family as well as assisting children in need in his primary school.</p>
ENT PC	Publishing Company	<p>ENT PC specialises in the publication of primary education books. He identifies as a traditional Akan:</p> <p><i>Yes, my sisters are very, very important. I don't play with them at all because they are the ones who are going to build the family. So, I don't play with my sisters. [ENT PC]</i></p> <p>The identification with his sisters is the strongest indication of his commitment to the matrilineal system. For an Akan man, lineage is through his sisters and their children and not through his own biological children. The expression 'I don't play with my sisters' means I don't take them for granted, I take very good care of them.</p> <p><i>Yes, I am really a true Asante. Today some men have stopped the Asante traditions, they just take care of their wife and children and they forget about their family. No, I am not like that at all. I take care of my family. [ENT PC]</i></p> <p>Ent PC carries extensive responsibilities within his community for his extended family and community youth. At the time of the interview, he was financially responsible for the post-</p>

		<p>secondary education of over thirty youth. His business was his original idea. However, he received his business training from his mother, a petty trader and his discipline and ethics from his father, a soldier. He began his business while completing his national service after secondary school, as a pupil teacher. Noticing the lack of appropriate textbooks for the children, he began to write for his students. As his own school grades did not qualify him for university, he turned to entrepreneurship as his books became popular. After achieving success with his publishing company, Ent PC went on to university to complete a degree in publishing studies. He speaks many languages due to the different places he lived as a child with his soldier father. He is married with five children, all of whom are being formerly educated. Ent PC identifies his faith tradition as Christian.</p>
ENT CF1 Papa Kwabena	Cashew Farmer	<p>ENT CF1 specialises in cashew farming. He is an Akan and speaks Bono, Twi and a little English. He received his business training from his parents who were farmers.</p> <p><i>Whether you go to school or not, at the weekend, you will go to the farm. And what he's doing you will also do the same thing and as you're doing it, you're learning. So, I would say that I learned most of what I know from my father. [ENT CF1]</i></p> <p>Ent CF1 has primary formal education and some technical training which he used for employment before transitioning into farming full time.</p> <p><i>Yes, I had a little education. I went to elementary school form 2. I did common entrance exam and went to Kumasi technical Institute. So, after secondary school I worked as a Mason. I did roofs and tiles and pavements. [ENT CF1]</i></p> <p>Ent CF1 is married with four children, all of whom are being formerly educated. Apart from his wife and children, he has responsibility for about ten extended family members as well as his farm employees and their families. Ent CF1 identifies his faith tradition as Christian.</p>
ENT CF2 Ameyaw	Cashew Farmer	<p>ENT CF2 specialises in cashew farming. He is an Akan and speaks Bono, Twi and a little English. He received his business training from his parents who were farmers.</p> <p><i>So, my father was a farmer and that's what he used to train us. [ENT CF2]</i></p> <p>However, Ent CF2 did not transition into farming, he went to train as a welder.</p> <p><i>I then went on to learn welding for three years but it was impacting my eyes so I left. I decided that my father had land and went into farming. My brother encouraged me to do some agricultural studies, so I went to farming institute for one year. It gave me some insights into farming which is helping me with my work right now. [ENT CF2]</i></p> <p>Ent CF2 received further training in farming by working with a big scale farmer for a further</p>

		<p>three years. This was also part of his strategy to accumulate financial capital for starting his own farming venture. Ent CF2 started his farm at the later age of thirty with 3 acres of land from his father. He is the only entrepreneur that is not married and has no children of his own. Despite this he has responsibilities for extended members of his family and the community, including his nieces and nephews, parents, and his workers. He is also involved in supporting farmers in his locality who are not so advanced with their farms. He identifies his faith tradition as being Christian.</p>
ENT CF3 Papa James	Cashew Farmer	<p>ENT CF3 specialises in cashew farming. He is an Akan and speaks Bono and English. His education level is Senior High School. He received his business training from his parents who were farmers.</p> <p><i>I would say that it was in my childhood, from the age of 6 years my father would take us to the farm, so I started very, very early. So, I would hold the firewood to the farm and my job was to make sure that the fire didn't go out. So, when you go to the farm, that's what we would use to cook. [ENT CF3]</i></p> <p>While at secondary school, his grandmother gifted him with land and yams to start his own farm and maintain the revenue. Ent CF3 went into farming straight after his secondary education. During the year of his graduation, a new school curriculum had been introduced and the results were bad. He could not take his education further and went into farming. Ent CF3 is married with four children all of whom are being formerly educated. He upholds responsibility for his extended family as he has many siblings with children to support. He has undertaken water projects for his community. He identifies his faith tradition as being Christian.</p>
ENT CF4 Papa Jacob	Cashew Farmer	<p>Entrepreneur CF4 specialises in cashew however much of his farm is used for growing a wide variety of vegetables including corn, tomatoes, and pepper. He is an Akan and speaks Bono and English.</p> <p><i>I went to form four middle school. I finished school the same year that Doctor Busia stepped down as president of Ghana. [ENT CF4]</i></p> <p>He received his business training from his parents who were farmers. He is the oldest of all the entrepreneurs at aged 66. He has had a successful farming career and he is still farming. Ent CF3 is twice married with nine children all of whom were formerly educated to secondary school level. As the oldest sibling, he holds an important position in his extended family and community.</p>

		<p><i>In all the family I'm the eldest. So, I am the one who is now in charge so if anything happens, it's down to me. It's not as if I feed them but I am the elder in the family, so I'm the one who directs the family. [ENT CF4]</i></p> <p>Ent CF4 identifies his faith tradition as being Christian.</p>
ENT SM	Soap Manufacturer	<p>ENT SM specialises in the manufacture of black soap. He is an Akan and speaks Twi, Ga, English and a little French. He received his business training from his mother and grandmother, who held the traditional recipes for the black soap. He is formerly educated to secondary school level. After his secondary education, he worked for a year as a clerk before deciding to take over the transformation of the family soap manufacturing business.</p> <p><i>So, my mother also learned it from her mother. In our area, it was my grandmother who was making the soap. [ENT SM]</i></p> <p>Around 1978/79 soap became scarce and business blossomed. ENT SM took leave from his job to support his mother in the business. He never returned to his job but joined his mother in soap manufacturing. Ent SM is married with three children all of whom are being formerly educated. He is committed to the extended family and the community.</p> <p><i>I didn't have my children early, but I've looked after a lot of my family members. [ENT SM]</i></p> <p>Ent SM identifies his faith tradition as being Christian.</p>
ENT FD	Fashion Design	<p>ENT FD specialises in Fashion Design. She is the only female participant of this research. She is an Akan and speaks Twi and English.</p> <p><i>My mom is a Fante. My father is Ashanti. [ENT FD]</i></p> <p>She received her business training from her mother who was a petty trader in farm produce and her grandmother who was a farmer. Ent FD was formerly educated to secondary school form 2 when she had to drop out of school due to inability pay her school fees. She entered an apprenticeship to train in fashion design, completing her training in record time. With no financial capital, she began her business in her sitting room, using the floor as her cutting table.</p> <p><i>I would say that it is my grandmother who taught me, you know, and I am so sad that she is dead. When I remember her, it makes me sad. I would really have loved to have taken good care of her. [ENT FD]</i></p> <p>Ent FD is married with three children all of whom are being formerly educated. She is committed to her extended family and the community, especially to the training of the twenty-two apprentices under her care.</p>

		<p><i>I look after my siblings, my father and anyone who is around me. So even if they're not close to me and they are in need, I help them. [ENT FD]</i></p> <p>Ent FD identifies her faith tradition as being Christian.</p>
ENT C	Construction	<p>ENT C specialises in the manufacture of roofing sheets and the construction of roofs for houses throughout Ghana. He is an Akan and speaks Kwahu, Twi and English.</p> <p><i>My mother asked for help in my education, 'he is your nephew come and help him'. He agreed to speak to his wife. Within 6 months my uncle invited me to join his family in Accra. [ENT C]</i></p> <p>He received his business training from his father and mother who were poultry farmers and his uncle who traded in firewood and building materials. After completing middle school, he moved to live with his uncle where he had the opportunity to study a diploma in accounting and work in his uncle's business.</p> <p><i>He told me 'Your uncle, I've lived life a little. Now I'm old and on pension so I have come for you to live with me so I can teach you wisdom. I have nothing to give to you but I am going to teach you wisdom. [ENT C]</i></p> <p>ENT C went to school and worked with his uncle in the firewood and roofing sheets business. He acquired the practical business skills from his uncle, especially sales and customer service, and the accounting knowledge from school. By the time he was 16 years, he was innovating and managing both businesses for his uncle.</p> <p><i>So, when I reached the stage where I wanted to start my own roofing sheets business. I didn't find it difficult because I knew how to wake up very early to start work, I knew how to sell and treat the customer very well, 'I was perfect' and I knew how to manage the finances. [ENT C]</i></p> <p>Ent C is married with three children all of whom are being formally educated. He is committed to the extended family, the community and over two hundred staff members. Ent C identifies his faith tradition as being Christian.</p>

Within the summary profiles, certain Akan identification marks are worthy of note. Each of the entrepreneurs self-identified as an Akan and this was supported by the language skills. Ent PC's identification with his sisters and extended family and Ent C's identification with his maternal uncle is very typical of the Akan matrilineal system. All the entrepreneurs except for Ent CF2 are married with children stressing the importance of marriage and children to the Akan. The commitment to

the extended family and community is also another important identity mark linked directly to the matrilineal system. Table 4.2 summarizes further important characteristics of the Akan.

4.3 Identifying Indigeneity

The data collection followed a longitudinal time horizon over a period of two years. Observations of the businesses to ascertain going concern status and validation of the data continued for approximately 4 years to the end of the research. The average interview time was 89 minutes and covered a range of 50 minutes to 156 minutes.

The research question and aim were adequately answered by the data collected through the semi-structured interviews. The interviews allowed for the specific questions and directed conversations. It enabled flexibility, allowing the participants to tell their story as well as answer specific questions. Most importantly, semi-structured interviews align perfectly with the aural traditions of the Akan. Choosing a method that is the primary mode of communication to the Akan, built trust between the participants and the researcher. The participants had confidence in the researcher and provided in-depth responses to the questions. Another important step that aligned perfectly with Akan culture was that the interviews took place on the business premises of the participants. The visit by the researcher to the participant, is in Akan a mark of respect, resulting in quality data for the research. Participants were comfortable having the interviews recorded for analysis and received the researcher in follow-up visits.

The research question and aim were adequately answered by the data collected through the interviews and observations. From the data collected and analysis results, AIEKS plays a key role in

the operations and strategies of all the participants interviewed. The interviews supported the identification of key indigenous Akan characteristics such as language skills, family, and community, matrilineal, and attitudes to risk. The interviews identified indigenous financial strategies, indigenous business skills, indigenous business development strategies, indigenous knowledge and transfer strategies and indigenous educational systems. Observations of the businesses over a period of 4 years, demonstrated the businesses to be operating as going concerns, providing employment, quality products and strategies in place for future development. The research showed that with careful management AIEKS can intersect with western knowledge in equilibria, allowing the business to function successfully within the modern economy that is both national and international. The businesses were resilient with sustainable strategies that allowed them to survive through Covid 19 and post covid. However, in the absence of proper intersectional management, the business does not survive.

Table 4. 2: Section A Interview Results

Family background	Research Results
1. Age	37 to 66 years range
2. Marital status	8 out of 9 is married
3. Children	8 out of 9 have children
4. Age of Children (years)	Ranges from 3 to 29 years
5. Have you formerly educated your children?	Yes, all are educating their children
6. To what level?	Secondary to tertiary

	level
7. Apart from your immediate family (spouse & children), who else do you care for?	All have extended family responsibilities
Ethnicity	
8. Which ethnic group do you belong to? If mixed, please identify all.	All are Akan
9. Where is your hometown?	Various Akan villages
10. Is that your mother's hometown?	Yes, all referenced their mother's hometown
11. Are you patrilineal (father's line) or matrilineal (mother's line)	All indicated matrilineal
Languages spoken fluently.	
12. How many languages do you speak fluently?	Ranges from 2-5 languages
13. Name them	Various ethnic and western languages
14. Can you read in any of these languages? Name them	Yes, mainly English & Twi
15. Can you write in any of these languages? Name them	Yes, mainly English & Twi
Education	
16. Did you attend school?	Yes, all had some level of formal education
17. How far did you go in your school education	Ranges from middle school to secondary

	school
18. Do you speak English? (GLSS7 standard)	Yes, for all
19. Do you write English? (GLSS7 standard)	Yes, for all
20. Do you read in English? (GLSS7 standard)	Yes, for all
21. Do you write in Twi?	Yes, for all
22. Do you read in Twi?	Yes, for all
23. Do you speak Twi?	Yes, for all
24. Can you do basic mathematics?	Yes, for all
25. Where did you learn mathematics?	At school and in training
Religious beliefs	
26. Which religion do you belong to?	All indicated Christianity
Attitude to Risk (Finance)	
27. How did you get money to start your business?	Family or worked and saved
28. Do you have a loan or lean on the business?	None had a loan on the business
29. Have you ever used a loan to support the business?	2 out of 9 had borrowed before
30. Do you use credit for purchases?	Never
31. How would you rate your attitude to risk?	All rated themselves as low risk
32. What is your reason for your approach to risk?	Need to consider the family and extended

	family
Gender	
33. Male or Female?	8 male, 1 female

4.3.1 Family Background

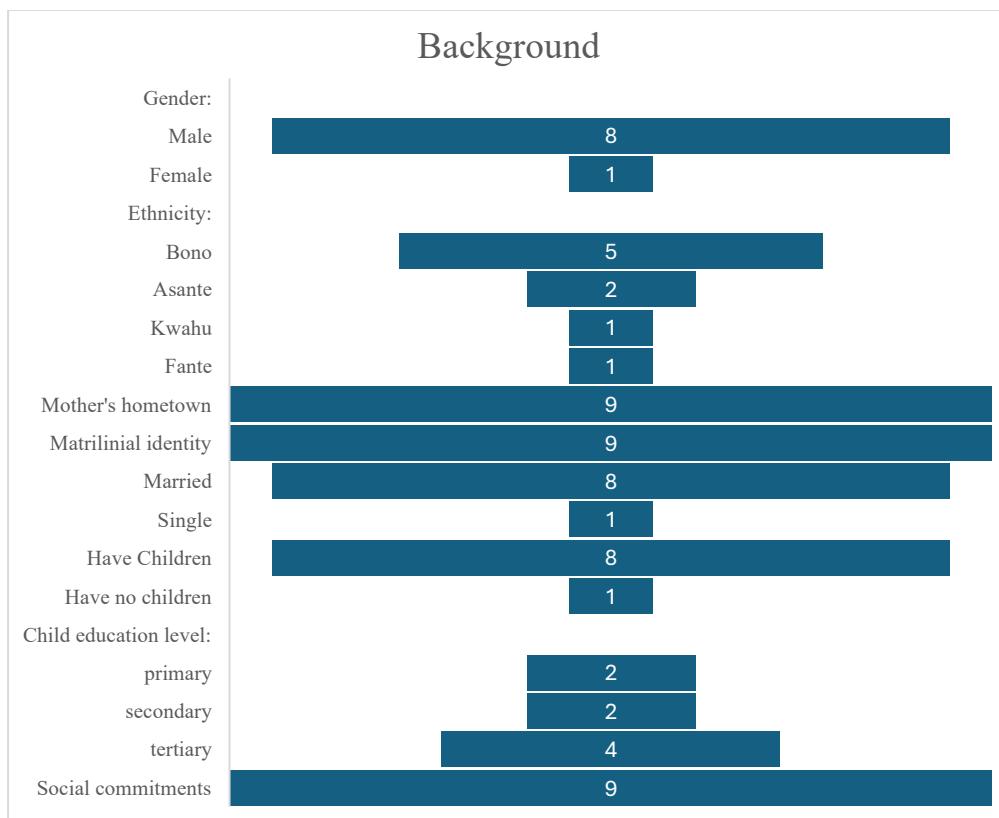


Figure 4. 1: Entrepreneurs Family Background

Of the nine entrepreneurs engaged in the research, eight are male and one is female. All the entrepreneurs are Akan from the Bono, Asante, Kwahu and Fante ethnic groups. Each entrepreneur identified their hometown as being their mother's hometown and identified themselves as being matrilineal. This is perhaps the most important identifying mark of the Akan. Eight of the

entrepreneurs are married and one is single. They all have children and in addition to indigenous training, they are all putting their children through the formal educational system. Some of their children have been educated to tertiary level, some are younger and still going through the primary and secondary level. One entrepreneur indicated asking his son to end his education at secondary level to join the family business. Another entrepreneur expressed concern about the demands of formal education and its interference with indigenous training. All the entrepreneurs are committed to supporting the extended family and the wider community.

4.3.2 Level of Education at Inception of the Business

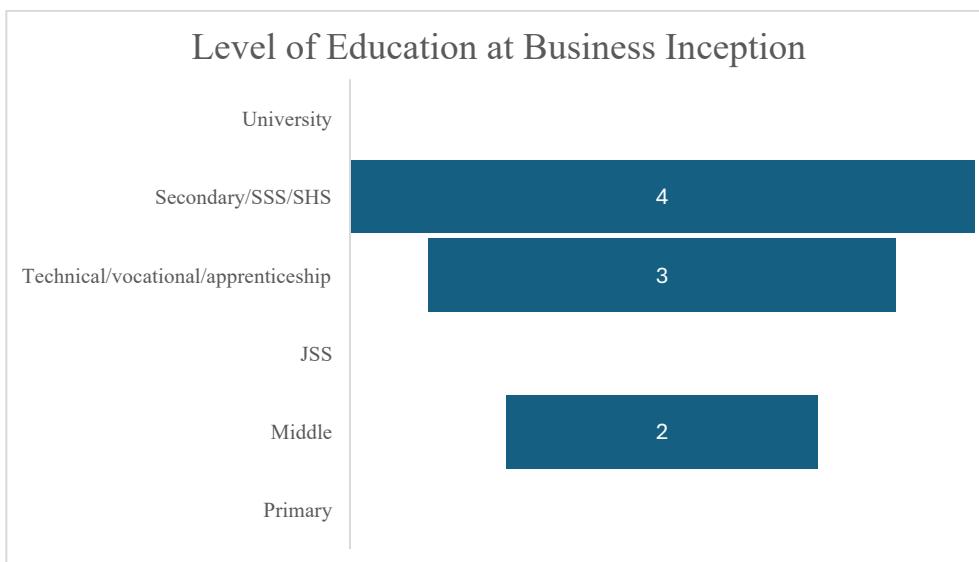


Figure 4. 2: Entrepreneurs Level of Education

For all the entrepreneurs, at the point of starting their businesses the highest level of formal education was secondary level.

4.3.3 Language Skills

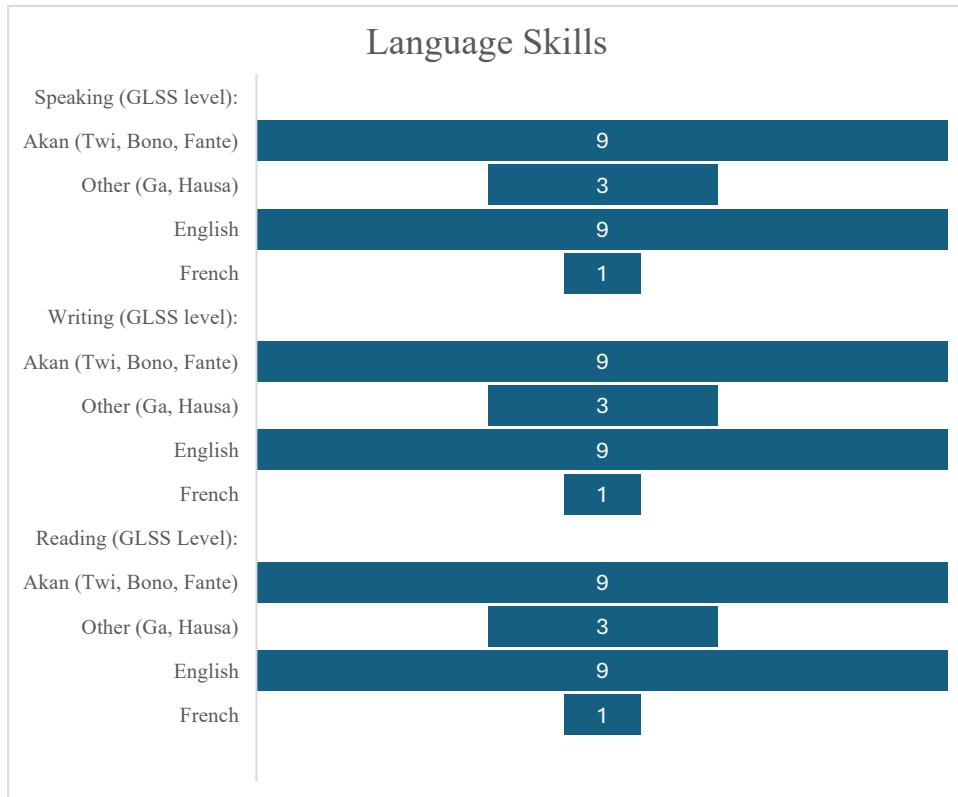


Figure 4. 3: Entrepreneurs Language Skills

According to the Ghana Living Standards Survey GHANA (2019), literacy is defined as “the ability to read and write a simple sentence in English, Ghanaian language(s) or French with understanding”. Based on this definition, the entrepreneurs are all literate in English and Akan. Some are also literate in other Ghanaian languages.

4.3.4 Attitude to Risk



Figure 4. 4: Entrepreneurs Attitude to Risk

Each of the entrepreneurs indicated that family contributed towards the starting capital for their businesses. Starting capital was not just financial but included physical assets such as land and operational workspaces, social capital such as free accommodation and subsistence and free labour. Two of the entrepreneurs worked for a few years to save financial capital for purchasing equipment and supplies for starting the business. Only two of the entrepreneurs indicated taking a bank loan at any point in the history of the business. However, these loans had been limited to small amounts that could easily be paid off. High interest rates and collateral demands from the banks were given as the reasons for not going for higher loans. Entrepreneurs that had never taken bank loans specified the concern of losing valuable assets to the banks in the event of nonpayment. In most cases assets such as land are family owned and should be preserved for the next generation. The entrepreneur's commitment to and their provision for the extended family,

make bank loans a risk too far. Indigenous financial strategies were the preferred option, enabling the entrepreneur to build at a reduced financial, social, and operational risk.

4.4 Primary & Secondary Themes

Table 4.3: Summary of Primary and Secondary Themes

Level	Themes
Primary Themes	Akan Indigenous Entrepreneurship Education & the Educators
	Occupation of Indigenous Educators
	Business Skills Developed
	Business Development
	Knowledge Transfer
	Indigenous Financial Strategy of ' <i>nkakra nkakra</i> ' (little by little)
	The Future & Diversification
	Knowledge Intersections
Secondary Themes	Resilience
	Government interventions
	Indigenous Philosophies in Practice

4.4.1 Akan Indigenous Entrepreneurship Education and the Educators

The results indicate that the entrepreneurs were primarily trained by both of their parents. The second most important people mentioned are the grandmothers (Table 4.1). There is a mention of training by a brother and an uncle (Table 4.1).

The only entrepreneur that did not mention his mother is ENT HM. It is probable that his father took him at a very early age to start this training which is much more extensive. However, although not mentioned it is probable that his mother had influence in his early training. The involvement of the brother and uncle is also expected. In a matrilineal society these are blood family and they are as interested in the education of the child as much as the parents. So, both the uncle and brother would play as crucial a role in their development as they do for their own children. The results also indicate that although parents and extended family provided the knowledge and training of the entrepreneurs, the entrepreneurs did not necessarily follow in the same line of business. They acquired the business skills and then utilised it in some cases in a different industry. This was the case with Ent PC and Ent FD.

4.4.2 Occupation of Akan Indigenous Educators

Ent SM identified his mother and grandmother as the source of his indigenous knowledge in soap manufacturing. His grandmother passed the knowledge to his mother and both women were instrumental in passing the knowledge to him. Although, he did not mention it, it is implied that the grandmother also received the knowledge from earlier generations.

Yes. So, my mother also learned it from her mother. In that area, it was my grandmother who was making the soap. [ENT SM]

Ent PC's father was a soldier in the Ghanaian armed forces and his mother was a Petty Trader. In his travels with his father, he learned to do odd jobs for other families and learned a lot about customer service. Supporting his mother's business also developed sales skill.

I would carry it. I had to travel to different schools. I would walk to go and give samples to the different schools and sometimes I would leave home at 8:00 o'clock and the whole day I'll be out. I did that for many years. [ENT PC]

The fashion designer Ent FD did not mention the occupation of her father whom she lived with for a while in her childhood but spoke extensively of her mother and grandmother who were the most influential people in her life. Her grandmother was a farmer but there was no indication that she received any extensive farming training. There are minor mentions to helping her grandmother on her farm and later as an apprentice, helping her madam's mother on her farm. However, Ent FD's mother was a Petty Trader and it was here that she worked at weekends and school holidays selling farm produce and gained much experience and business skills. After junior secondary school, she worked full time for 3 years to save money for her secondary education.

She was just selling. She's sold farm produce in the market, cocoyam, and plantain, gari and yam, so that was how she was surviving just a few things to sell. [ENT FD]

So, I worked like that for three good years with my mom and then I got to know the business very well. [ENT FD]

So, my mom would entrust part of the business to me. [ENT FD]

This is typical of petty traders, carrying their goods from place to place, they do not limit their products by location. For the construction entrepreneur Ent C, although his father was a poultry farmer, his maternal uncle who had the biggest influence on his entrepreneurial journey was not a farmer. He was a merchant of firewood and roofing sheets and it was these two businesses that he used to train his nephew.

I sold the firewood and went to school, after school I would continue finishing at 9pm. I would do my homework while selling or manning the shop. Weekends I would go to his shop and sell the roofing sheets. So, I had the practical from working with my uncle and I was learning the accounting in school. [ENT C]

So, I reached the stage where I wanted to start my own roofing sheets business. I didn't find it difficult because I knew how to wake up very early to start work, I knew how to sell and treat the customer very well, 'I was perfect' and I knew how to manage the finances. [ENT C]

Entrepreneur TM, focussed on his father's occupation as a traditional healer and did not allude to anything other occupation. He mentioned that his father was a renown healer who practiced the 'payment according to ability' principle. Interestingly, when Ent TM took over the business after the death of his father, he quickly realised that the income was not sufficient and he needed to pursue a second career to be self-sufficient so he went back to formal education to train as a teacher.

When I was young, my father used to say that I'm his right hand. So, when he goes, I'm with him when he's coming, I'm with him. When people come for their medicine, I'm the one who will pick and prepare the medicine for him and all this time I was going to school. [ENT HM]

The remainder of the entrepreneurs had a primarily farming background from which they developed their entrepreneurial skills.

Yes, my father, my mother, none of them went to school so they were all farmers and that's who I learned from. [ENT CF2]

So apart from the farming, my father also taught us about land as well. It's not everything that you grow on the land that is good. My parents used to grow cocoa but where we are right now, we cannot grow cocoa. What we can grow is cashew. Coconut will be fine and pawpaw will be fine and some Palm nuts. [ENT CF2]

My father and my mother taught me. My mother was a farmer. She used to grow yam. So, she was named after this species of yam. And my father was also a farmer. He grew cocoa. [ENT CF4]

The agricultural focus is to be expected as the Akan are primarily farmers. Farming is the primary entrepreneurship activity among Akan and in this business exists a lot of indigenous knowledge. Apart from those who are full time farmers, according to GHANA (2019), about 40% of people in Ghana own farms that contribute towards providing food for their family. Many Akan invest in farming as a hobby and many professionals return to the farm to enjoy their retirement years. Farming is in the blood of the Akan (Bowdich, 1819). ENT C and ENT FD, however moved away from their farming background.

4.4.3 Business Skills Developed

Analysing the results revealed a wide variety of skills gained by the entrepreneurs through their training years with their parents and family. With this level of skills, it is not surprising that indigenous students are ready to set up their own businesses by the age of twenty (Kwadwo, 2002).

The major business skills such as marketing, sales, finance, customer service, business development, credit management, product diversification, hard work and self-reliance, judgement/wisdom, resilience, and sustainability have been learned by these young entrepreneurs. In addition, they have picked up a lot of ancestral knowledge from their parents and have begun experimenting and self-testing their own ideas. By the time they are in their late teens, early twenties they have business experience of close to 15 years, not only observing their parents but actual hands-on practical experience and in some cases have been given the opportunity of running the family business or their own trial business. This has been done while attending their formal education under difficult circumstances.

Ent SM learnt every aspect of the soap manufacturing process and knew how to produce all the ingredients. He also started to improve the quality of the product.

Oh yes, it changed a lot. The quality changed, everything changed, even the preparation of the raw materials changed. I also learned how to do the oil preparation. So, my mother used to do all the raw materials you know. I had done the palm oil, and I had done the coconut oil. [ENT SM]

So, everything is useful and I know how to do all of it. [ENT SM]

The study also indicated that the entrepreneurs were taught self-financing skills, how to establish the business with little or no money. Considering the financial barriers that had prevented all the entrepreneurs from pursuing their educational ambitions, these self-financing strategies have been critical for their business success.

My mother also helped me a lot. All the time I was not married, I would eat in my mother's house; so, I wasn't buying food. So, this is how I managed to get my capital. [ENT PC]

So, I decided that whatever I could see I would grow. So, I started to grow orange and then I grew some more cocoa and then I started on the cashew. You know, so I was relying on all three for my income. So, always I had something set aside so that I would not be in financial need because every season I would have something. [ENT CF1]

So that's why we also have the animals to add to the farm. You can also use them for food as well when you get to a place where you have no money. We also use the farm for growing our food. We eat from the farm. We grow everything that we need, we grow plantains, yams, vegetables, and everything that we need and we eat off the farm. [ENT CF1]

Minimisation of expenditure through diversification of products, support by family members to reduce personal expenses and living off the land were strategies used by the entrepreneurs to secure their flow of income and maintain self-reliance. Diversification also extended outside the industry to further increase security of income. For example, combining farming with transportation, water, medical and hospitality services. Ent PC also ventured into microfinance; however, the business failed.

So, we left the growing of corn and went to grow tomatoes and papaws and plantain and Cocoyam and yam. I've asked one of my sons to stop school and help me with the farm. I'm going to add a car to that so that he can also do some transportation work. [ENT CF4]

The entrepreneurs also acquired marketing and sales skills which they used to build their businesses.

So, one of the problems we have is marketing and sale of our products. So, when I grow my tomatoes, I have somebody who will buy them. I have people who I have organized in different places for buying my tomatoes. If you have just one person, or if you sell to just anyone who comes to you, you're going to be in trouble. [ENT CF4]

So, when I graduated, I had to start at home. I didn't have any customers so whatever little I had I would sew my own designs and wear them as a form of advertisement. People who saw and liked my clothes, would give me business. So, I was able to get my first customer. And that first customer, she was good, but she was such a troublesome customer but she became an advert for me as well. [ENT FD]

There is recognition that much of this knowledge is ancestral knowledge as there is no indication from the interviews that any of these trainers had any form of formal education.

So, my father, who taught me, didn't make money a priority and that has been the case since now. And this is traditional medicine. It was left to him by his ancestors, and it wasn't a money matter. And so, I followed that. [ENT HM]

The farmers indicated the indigenous knowledge they learnt about the land was from their parents, their ability to read the land and know exactly what to grow on it.

Yes, if I look at the earth, I can see what I can grow. [ENT CF2]

We don't have any machine to test the soil. We use our mind. What you'd look at are the plants that are growing on it. You look at the fruits that are growing on there and you can see that if this one grows on there then you can see similar plants and they will also grow. [ENT CF2]

So, when you get the land, you walk through it and you look at the original plants that are sitting there and then you work out from there what will work on the land. There are also some things that you can't use your eyes. You've got to grow the plants on the land before you can tell. [ENT CF2]

The farmers also indicated their concern about the destruction of the land and valuable food crops like cocoyam from pesticides, weedicides, and chemical fertilizers. Cocoyam, a valuable and nutritious food crop in the dry season has become scarce because it is destroyed by chemicals. For this reason, the farmers mostly avoided these chemicals and used indigenous knowledge to manage pests and fertility of the land. However, one farmer indicated that some farmers do not like organic fertilisers. Ent CF3 also indicated that he uses weedicides and pesticides on his cashews and corn.

And then there is a pest control. The cashew fruits in dry season and the insecticides that they brought, if you spray it, it destroys the cashew flower. So, if you spray it during the dry season, it doesn't fruit. And we also don't climb the tree to pick the fruit. It just falls. So, we use the small insects that live off the trees for pest control. [ENT CF1]

So, when we also weed, we leave the leaves because they provide protection and it also turns into fertilizer for the ground. It keeps the ground moist and protects the land from drying. It's called mulching. So, the sun doesn't reach the Earth to dry it because the weeds that we've cut protects the land. So, we cut the weeds we don't use weed killers. So, when it rains it rots and then becomes organic fertilizer for the ground. This is the wisdom of our grandfathers that we use. [ENT CF1]

Entrepreneur TM indicated that his training was such that he was able to find supplies anywhere, medicines are not limited by location.

Oh no, no, the medicines will never be gone. Wherever I am, I'm looking at the trees and I'm able to find the medicine. You know, wherever you take me, I can go into the forest and look at the trees and be able to find medicine wherever I am, I see the medicines, I see the trees. Well, it is a gift. It is a gift that I have. [ENT HM]

You know, I can even right here and now, you know, at the back of this house, I can show you a few leaves that's medicinal. [ENT HM]

The entrepreneurs were also taught the importance of experimenting with their products and as such have also continued to add to the body of knowledge transferred to them by their parents and family.

I drunk the medicine, you know and see. So, I tried it on myself and I also gave some of it to my friends. And they would try it and then I'll ask them to go to hospital and check. [ENT HM]

So, we also started even changing the boundaries of the farms because people's farms were burning. We started to look at all these things so that we could improve our farms for future generations so that everybody's farm would also work well. That's why we started the nursery to really experiment. [ENT CF1]

I've never been to hospital. I have no hospital card. The only time I went to hospital was to give blood donation. I've never been sick because of the natural herbs that I use, and I use all the time. I use it for eating, inhalation, for bathing, and so I've always had good strength. [ENT HM]

Some of the materials were not good, so we had to change the way we do it. Something like palm kernel oil, we roast the nuts before we make the oil and sometimes it burns so when you finish making the oil, it is dark. So, I changed the way it is done. I stopped and found a way of making the palm kernel oil. [ENT SM]

All the entrepreneurs exhibited the values of resilience and hard work which is part of the Akan value systems. Each overcame initial disappointment with the financial barriers that prevented their continued formal education and found alternative routes into entrepreneurship and success. In addition, they also overcame lack of financial resources for their business ventures and built success 'little by little' through the application of indigenous strategies. Hard work and self-sacrifice played a key role in their success.

She (my grandmother) would encourage me to work hard. But the way she taught me to understand how hard work is important is what has helped me in my life today. [ENT FD]

So, when I started my first shop, I was ready by 4.30-5am to open the shop. At that time the wealthy shop owners that were money changers would open their shops around 9-10am. By the time they arrive in their shops I would have taken all the customers. [ENT C]

Customer service is important for all businesses but especially for businesses that are mostly customer facing. Ent FD and Ent C are especially customer facing as they are directly dealing each day with many customers. Their training also taught them the importance of good customer service.

My grandmother also told me when you work with people, treat them well, treat them well even if they're not going to treat you well so that is also in my head. So, whoever I work with, I try to do well for them. I try to do good things for you and leave the rest to God. [ENT FD]

So, every Saturday morning, I would go round and see the women and find out how everything was with them so they always knew that we were thinking about them. They could even ask us for credit and my uncle would give it to them. So, the whole area we really sold the wood. This is where I learned how to talk to people, customer service and humility, little by little until you have received your money. My uncle advised me that the customer is always right, you must always be humble to them, when you treat them special, they will always come to you. [ENT C]

Weekends, I would travel to meet with the customers, to Volta Region and talk with them. 'How are you, how is business, how do you find my products, how is the quality, do you like the colours? I would thank them and promise to come again. Then following month, I would go to the Eastern Region and visit the customers there, I would travel all over the place to see my customers. So,

customers would now call me and say they're not coming. I organised for them to pay the money into my account and then I would supply them. This initiative really helped me. [ENT C]

Language is also important in business and being able to communicate with people in their own language is an advantage. In Ghana where there are multiple languages, all the entrepreneurs gained multilingual skills in their training, with a minimum of two languages and a maximum of five languages.

So, I didn't go to school in the Ashanti region. I had my education from class 1 to class 6 and 6 to 11 in Upper East Region, so that's where I learned the languages. [ENT PC]

4.4.4 Business Development

With the experience gained under the leadership of their parents, the young entrepreneurs gained deep insights into the family business. In most cases this resulted in ideas of how to improve the business and how to launch their own businesses. Apart from the soap manufacturer all the entrepreneurs launched their own businesses. Most of the entrepreneurs brought improvements into the family business before starting on their own with the family's support. The soap manufacturer took on the family business, improved the supplier chain by training farmers to manufacture the potash needed for the soap from discarded cocoa shells. Not only did this secure the supply chain but it also brought in additional income for the farmers. The construction entrepreneur developed credit facilities for the customers and with exceptional customer service, won the custom of most of the women. Such was his success that by age 16, he was running the business for his uncle. The knowledge gained and additional income earned meant that he could start his own business at aged 20.

From training with their parents and family, these entrepreneurs were able to transition into starting their own businesses, identifying gaps in the market and overseeing the growth and development of their businesses. The fashion designer took her experience of petty trading into fashion apprenticeship where she applied her creativity and hard work ethic to complete her course in record time.

So, I spent 2 1/2 years with my madam. I trained for about a year and a half before I became pregnant, and then I did another year after I gave birth. [ENT FD]

After graduation, she started her business in her sitting room, using the floor to cut her patterns and wearing her own designs to market her products. At the time of the interview, she had 22 apprentices under her training.

When I started, we had some wooden chairs, that is what I put my machine on. Then I sat on another chair in my kitchen. I had a couple of kitchen cabinets that I put a cloth over and it became my ironing board. So, what I put my machine on, wasn't even a table, it's a chair but little by little I was able to get some money and I was able to buy a small table. And then I bought a big table that I could cut. Otherwise, I used to cut my patterns on the floor. So, I had to use the curtains to divide the room, and that's where customers would stand to try their clothes on. [ENT FD]

Ent C successfully developed his roofing sheet business and strategically build his first factory by the age of 30 years.

By 16, I was managing my uncle's business and going to school. So, at 20 when I wanted to start my own business, I knew everything, sales, accounting, customer service, credit, marketing etc. [ENT C]

The next move was to build my own factory. Rather than buying and selling, I realised that if I produced my own, I could cut the cost and increase my margins. I bought a large piece of land to build the factory. In the year 2000 was when I opened my roofing factory. I started to import my raw materials. The wealthy merchants in the roofing business did not have that idea and didn't think I would go that far as I was very young. I was 30 years at this time. [ENT C]

Ent HM continued to develop the knowledge transferred to him by his father.

Yes, I've added so many things. For example, body massage. You see, my father showed me but I sat down and did my research. I sat down, I asked God and he showed me. So, at first you know when my father's father, was healing, as soon as a leg breaks, they put the medicine on it, but I don't do that. I use setting oils to massage it and massage gently for it to fall into place, and then I put the medicine on top of it to cover it so that it sets. [ENT HM]

Ent SM saw the business opportunity in the family's indigenous knowledge and joined his mother to develop the business.

I remember that we just used to do it and cover it with newspaper and I did that for about seven years. And I just realized that yes, if I develop it, it would be good. And then I just decided to change it. I was looking at the challenges and then I would look at ways in which to make it simple and quality control. [ENT SM]

With my little science knowledge from school, I made some changes. Then I went to show it to Ghana standards board. They didn't have a standard for black soap so we all sat down and wrote it down and they told me to go and test it and that became their standard. So, when the standard came, it was mine that they approved first. But the environment wasn't good because I was still

manufacturing in somebody's back yard. I realized that I had to buy land and build a large structure, that would make it presentable. [ENT SM]

Ent PC started his business during his government national service as a pupil teacher and working part time for a private school. It was here that he identified a gap in the market for relevant textbooks. He began to write for his students and the headteacher liked the books so he presented to other schools who also liked it.

When I was sent on National Service, I was a pupil teacher. I had a problem with physics, so I couldn't go to university. [ENT PC]

I had to travel to different schools. I would walk to go and give samples to the different schools and sometimes I would leave home at 8:00 o'clock and the whole day I'll be out. I did that for many years. When the school opens and they are going to buy the books, then I would take a car and put them in it and transport and distribute to the schools. And little by little I reached that place where I was able to buy a car. [ENT PC]

The farming entrepreneurs equally had challenges in starting and developing their businesses. Generally, family land and support were provided to start the business and some had to work for the initial capital.

I went to the farming training before I went to manage the man's farm. So, I trained for one year and I managed for three years and by then I was 30 years. [ENT CF2]

My brother and I decided to start alone. At that time the government forest was available for us. So, we got some of that land and we started to farm. At that time the type of farming was cocoa. We also had different type of cocoa. It was seasonal and it was the best. [ENT CF4]

So, when I finished SS one of my brothers told me that there's no money in yam so I should grow corn. So, I listened, I went to a grow corn. I remember I got 20 bags from my first crop. They used to sell it one bag at 10 cedis, that was in 1995. I was able to get 200 cedis. I gave it to somebody as a loan and it's been repaid. I continued to grow the corn for a long time. It was corn that I used to build my first house. Then I decided to do a drug store. So, I went to get a license for the drug store. And then I wrote the exam for the drug store and passed, and that's what I've been using to operate. [ENT CF3]

I started with garden eggs, corn and other vegetables. I got the cash and then I started to grow the cashews. So as the cashew is growing, you grow the vegetables underneath it to generate cash as well. The money from the vegetables cannot be used for building or anything else, but rather to grow the cashews and oranges so you keep extending the tree crops keep growing the vegetables. That's how you do it. [ENT CF1]

Well, to be honest, I didn't see them doing anything like that because I didn't grow up seeing them because when my father died, I was small. But it is something that we do, we took from them and we are also using our minds. It's not everything that they taught us. We are also adding our own things to it. Yes, what they gave us, we are adding a lot to it. [ENT CF2]

4.4.5 Knowledge Transfer

All the entrepreneurs acknowledge the acquisition of ancestral knowledge, both business and values, through their parents and other family members. The entrepreneurs are also adding to the body of knowledge through experimentation. Most critically each of the entrepreneurs indicated commitment to passing on the knowledge to the next generation of entrepreneurs. Firstly, each of them indicated that they are passing on the knowledge to their children and family members. The exception was the fashion designer whose children are not old enough to be incorporated into the business. Even the cashew farmer who is not yet married is passing on the knowledge to younger members of his family who are interested. Secondly, the knowledge is being passed on to members of the community. Those mentioned included, secondary and university students, prisoners, local farmers, community members and apprentices. One farmer mentioned that it is becoming difficult to train his own children as he was trained because of the demands of formal education and the scarcity of land for farming.

Ent SM has become a trainer to pass the knowledge on to locals and students and government prisons. He also trains local farmers he works closely with to strengthen the supplier chain and provide additional income for the farmers.

Yes, I've trained a lot of people in this area. We have a program with the government where they bring people to us for training. Sometimes we go from village to village and I have also taught prisons how to make the soap. They are now making the soap for use in the prisons. [ENT SM]

I'm giving it to one of my sons. The one that I asked to stop school after he's finished secondary school. So, he is the one that I'm giving my knowledge to. [ENT CF4]

So, my children and my nieces and nephews and then other people too who are with me as well, anybody who is willing to learn. I'm willing to teach them so it doesn't get lost. [ENT CF1]

I have three seniors who are about to graduate. When customers come, the apprentice can cut with my patterns, I want to make sure that they know how to do everything. So, I start them early. We use patterns because it saves material and then it is easier to use as you move along. So, I cut it and then I let them put it onto the lining and cut it. By the time they graduate they know the cutting and everything. I teach them everything. [ENT FD]

All the entrepreneurs are committed to passing on their knowledge to their children and extended family. Those who are old enough are already being transitioned into the business. The farmers have already distributed some land. They are working in the businesses during school holidays.

Yes, and if we don't pass it on, we will die with it and then the foundation would have been lost and then it would not have been fruitful. [ENT SM]

I have big plans for my children, my youngest child, the boy. So, my dream is for him to be a doctor and then to use the herbs in addition. I've started teaching him already. So, I've decided that when he's seven years, I'll take him. I'll start taking him to the bush with me and then I'll start training him in the same way that my father trained me. Apart from that, he's brilliant, he's young, but he's brilliant. So, my main aim is when he's older, he will follow his dream with further education and then come and I will also teach them. [ENT HM]

The results also indicated a phased approach to knowledge transfer that starts as early as six years old. The entrepreneurial journey of ENT CF3 demonstrates this very clearly. However, the same structure can be identified with all the entrepreneurs. *Phase 1:*

I would say that it was in my childhood, from the age of 6 years my father would take us to the farm. So, I started very, very early. [ENT CF3]

Phase 2:

Later I went to live with my grandmother, my mother's mother. My grandma gave me 20 pieces of yam, at that time I was in primary school. I grew that yam every year until I finished senior secondary school. [ENT FC3]

Phase 3:

When I finished school, my brothers told me that there was no money in yam so I should grow corn. I listened to their advice and I went into growing corn. I remember I got 20 bags from my first crop. They used to sell one bag for 10 cedis, that was in 1995. So, I was able to get 200 cedis, which was a lot of money. I gave it to somebody as a loan and it's been repaid. [ENT FC3]

Phase 4:

I continued to grow corn for a long time. It was corn that I used to build my first house. Then I decided to do a drug store. I studied for the license for the drug store, wrote the exam and passed, and that's what I've been using to operate my drug store. But I was still doing the farming and I continued to do that for so many years, still just growing the corn. I was growing as much as 100

bags of corn. Then the cashew started coming into the system, and I realized that I could combine that with the corn. [ENT CF3].

The entrepreneurs reached phase 4 between the ages of 16-30 years:

My father died in 2005, I was 24 and that's when I started. So, I was doing it little by little, but it wasn't big like now. [ENT HM]

So, when I was in national service, I had to teach in a private school, and it was within the time that I started to write for my students. The headmaster said it was good and that gave me the idea to do it and send it outside. [ENT PC]

The next move was to build my own factory. Rather than buying and selling, I realised that if I produced my own, I could cut the cost and increase my margins. I bought a large piece of land to build the factory. In the year 2000 was when I opened my roofing factory. I started to import my raw materials. The wealthy merchants in the roofing business did not have that idea and didn't think I would go that far as I was very young. I was 30 years at this time. I have continued until this time. [ENT C]

Figure 4.5 illustrates the indigenous educational cycle and the path taken by all the entrepreneurs. The square (*Anannan*) is an Adinkra symbol of Odumankoma's universe. Within this is the community consisting of the matrilineal and extended family, community experts and the wider community. The family and the community are the primary educators in entrepreneurship. However, at a very early age the student is also taught the importance of giving back to the community. Indigenous education starts as early as 6 years old, and it is expected that by the time

the student is 16 to 20 years old, they have acquired sufficient business skills to start their own business. These entrepreneurs will input into the indigenous educational system.

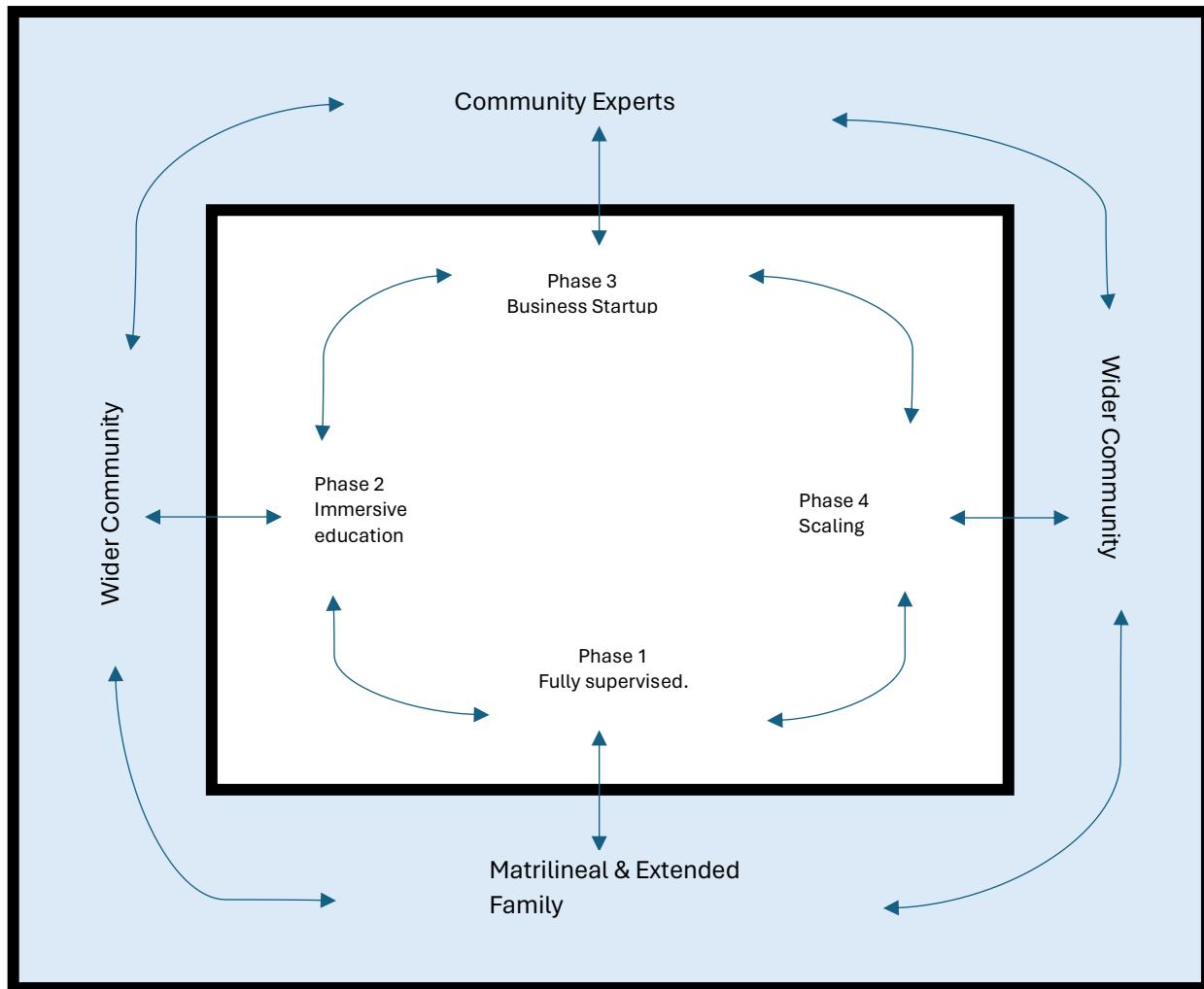


Figure 4.5: Akan Indigenous Entrepreneurship Education Cycle

4.4.6 Indigenous Financial Strategy of ‘nkakra nkakra’ (little by little)

The study showed that Akan Indigenous Finance is risk averse following the Akan philosophy of ‘nkakra nkakra’ (little by little). The investigation showed that except for Ent SM and Ent PC, none of the entrepreneurs accessed any bank loans. Financial capital came from a variety of interest free options including savings and support from family members (Ghana, 2019). The concept of organic growth is clear across all the businesses. Each started small according to the capital available and then gradually built the business using strategies that excluded borrowing. In addition, certain physical assets such as land and premises were provided as either a gift or at no interest by family. Family and community members also provided for living expenses so the entrepreneur could build savings that could then be ploughed into the business.

Oh yes, I have contract with them. So sometimes when I showed them how to do it. I then give them some seed money so that they can begin to produce. Uh, so as they do it and they sell it to me, then you know they pay their debts little by little. So that's how I do it. See, it's because I need it and I didn't make it. (Seed funding and supplier chain establishment) [ENT SM]

Little by little I learned to make the soap. [ENT SM]

So, I've just been doing little by little. When the service (students who are completing their national service) people come, you must pay them, you know. So right now, what I have are the attachment, those who are in polytechnics and IPS (Institute of Professional Studies). For them they just come for attachment. [ENT SM]

Yes, and it's just little by little by little. I am always thankful to God for how my life has gone I'm grateful because not everybody has been able to achieve what I've been able to do. [ENT FD]

She (mother) was just selling. She's sold farm produce in the market, cocoyam and plantain, gari and yam, so that was how she was surviving just a few things to sell. So, little by little I finished school. [ENT FD]

So, I decided to do it little by little. Later, I spoke to one of my brothers and said I wanted to go back to school and he said he will help me and my mother also helped me and a few other people. So, I was doing distance learning but all the time I was healing. I was, you know, preparing my medicines and giving it to people and it was really working. [ENT HM]

So, this is where I learned how to talk to people, customer service and humility, little by little until you have received your money. [ENT C]

My father died in 2005, I was 24 and that's when I started. So, I was doing it little by little, but it wasn't big like now. [ENT HM]

I would carry it. I had to travel to different schools. I would walk to go and give samples to the different schools and sometimes I would leave home at 8:00 o'clock and the whole day I'll be out. I did that for many years. When the school opens and they are going to buy the things, then I would take a car and put those things in it and transport and distribute to the schools. And little by little I reached that place where I was able to buy a car. [ENT PC]

The following month I would go to the Eastern Region and visit the customers there, so little by little I would travel all over the place to see my customers. [ENT C]

I didn't really have much money to start. You know we started little by little with the help of other people especially with my nephew. I told him that I wanted to go in in a big way. And whatever we needed; he would come in with the help. So, I never went to the bank. It was family support. The family helped little by little to bring us to where we are today. So, the farm is really a family farm. [ENT CF1]

Yes, that is how we do it. We know how to economize. Yes, so the 100 acres was done little by little. But right now, it is matured. [ENT CF1]

It was my father who gave me most of my land. That's the work that he was doing and he had a lot of land. Wherever he saw land, he would buy it so if you are his child and you are not lazy, there was plenty of land for you to work with. And sometimes he would also rent his land as well, or leased his land and he would let his children do that as well. So, you could lease it from him as well and then when you did the farm you will share with him. [ENT CF1]

I decided that whatever I could see I would grow. I started to grow oranges and then I grew some more cocoa and then I started on the cashew. You know, so I was relying on all three for my income. So, always I had something set aside so that I would not be in financial need because every season I would have something to sell. [ENT CF1]

Labour costs, which are amongst the largest expenditures of any business, are reduced through multiple strategies. Initially, reliance is placed on family labour at low or no cost. Ent PC used the

free labour of his wife, mother, and community youth to support his operations at the start of the business.

Yes, my wife and I were the only employees and we will do the work. So, we will just line the papers on our veranda and pull everything together. Once you print and then come back and line it up and then pull it together then the children in the neighborhood would come and help us as well. [ENT PC]

The use of apprentices and trainees provide additional income and free labour. In the apprenticeship program, the student pays a fee to be trained. Since the training is very practical, the student is also working for the entrepreneur for free, thus reducing their labour costs. Ent FD utilises this method extensively in her business, with 22 apprentices at the time of the interview.

We had about 16 apprentices working, lots of business was coming and we were still doing all of this at home as the building was being put up. So, I was not spending anything on myself because every money I had was going into the building. And then, little by little, about four years ago, we finally moved in. Right now, I've graduated (7) seven apprentices. [ENT FD]

Various forms of work arrangements from full time to daily labour rates were also used and provided flexibility to keep costs to a minimum. The farmers also mentioned community farming practices where they work together as groups to support each other's work. This practice provides skilled labour at key periods such as clearing the land, planting, and harvesting at no cost.

No, I don't have any permanent workers that I pay monthly. When I need them, I call them and they will come. I have certain people that I call, they are from the local villages and I have people that I rely on. And so that's why when they need help, I also help them. So, I build that relationship. If you don't help them, then obviously they're not going to help you. [ENT CF2]

So, I have right now 20 acres which is now mature farm and I have somebody who is looking after the farm. So, I pay them by dividing the products in three and then we share 2:1. [ENT CF3]

And then I have another 20 acres as well. I do the same thing there. I have another 40 acres and I do that myself. I do that, but I have laborers there who work. Some of them I pay monthly others I pay annually. [ENT CF3]

So, people thought I had money but no, I was also labouring to earn the money to supply labourers for my farm as well. [ENT CF3]

Diversity of products was found to be a major financial strategy. For the farmers producing a diversity of crops ensured that they could live off the land and minimise costs and plough most of their profits into expanding the business. When crops were combined with animal husbandry, they could live completely off the land. Intercropping vegetables, which can be harvested within 3 months, with tree crops provided the finance needed to expand the cultivation of tree crops and make optimal use of the land. Seasonal crops are carefully chosen to ensure income can be generated year-round providing protection against seasonal and economic uncertainties. Land can be leased and rented with payments made after harvest with no interest. Farmers also limited the use of chemicals on the land; in some cases, they were completely organic. Farmers were not

aware that organic products fetch higher prices and were simply following organic practices to preserve the land, protect animal life and valuable plants such as cocoyam and reduce waste since according to the farmers organic produce has longer shelf life.

So that's why we also have the animals to add to the farm. So yes, you can also use them for food as well when you get to a place where you have no money. Yes, we also use the farm for growing our food as well. We eat from the farm. We grow everything that we need, we grow plantains, yams, vegetables, and everything that we need and we eat off the farm. [ENT CF1]

So, when I left the mason work, when I started the farming, I didn't start with Cashew or oranges I started with vegetables because every three months you were harvesting and selling, so that's how I got my cash to begin to develop the farm. To grow the cashew and the oranges that takes time. [ENT CF1]

Yes, to begin with it was just us. We grew, peppers or tomatoes, garden eggs, corn and that's what we would grow and every three months, will be harvesting and selling and getting money that way. [ENT CF1]

A unique financial strategy based on Trust Capital was also adopted by Ent CF1. One of the largest costs in cashew farming is maintaining the weeding or clearing of the land during the first five years as the cashew grows to maturity. The cost of labour can be high where farmers do not want to grow vegetables. This is usually where farmers opt for weedicides. Ent CF1 however, leases the land to another farmer who wants to grow organic vegetables purely on a relationship of trust. The vegetable farmer, through the growing of the vegetables keeps the weeds at bay, giving the cashews

room to grow. The arm's length agreement is that both farmers will not use chemicals, protect each other's crops, and will not harvest without permission.

4.4.7 The Future

Expansion and diversification appear to be central to the future of all the entrepreneurs. Expansion is mainly local and national but also international. Diversification is in terms of product diversification but also industry diversification. This applies mainly to the farmers whose plans include combining farming with transportation, hospitality, and community water production. Interestingly, one entrepreneur is focussed on family diversification to secure the future of the family as the publishing industry has experienced a lot of recent challenges. As such it is important to the entrepreneur that the family is not just reliant on the business.

Ent FD is planning to establish a fashion design school. She is currently adding a second floor to her studio to increase the number of apprenticeships. Ent CF2 is looking for expansion through organic business growth by focussing on cash crops, like tomatoes and corn to generate funds for growing cashews. Ent SM is now looking for partners but cautiously which is the indigenous way. The future include land, vehicle, factory for production and marketing. Ent PC is planning family diversification for eldest son to join the publishing business; the wife is an accountant and daughter a doctor. For Ent CF1 the future is building on the harvesting and processing of the cashew, building sustainability into utilising the by-products. Currently, the cashew farmers are focussed on the cashew nuts but there are many lucrative by-products from cashew. For Ent CF4 the plan is to combine tomato farming with commercial transportation. Ent C is expanding internationally into Togo, Nigeria, and USA and into other roofing products. Ent CF3 is diversifying into water for the community, transportation, and hospitality.

Yes, I need qualified people who will do the job. Right now, if we're doing costing, I struggle. Things are changing. You know today prices are changing all the time. Water, energy, transportation, and taxes and so forth, it's not an easy calculation to do. [ENT SM]

Yes, I could get a lot of people, but there are certain people who come in and with their conversations, I know that these people I cannot work with them. So, then I change my mind. Some people think that I don't want the business to expand, but it's not because of that, the kind of people I'm looking for, I have not found them. [ENT SM]

It could be that this business will never die. If we look after it well, you know. It is something that is very important. Soap is constantly needed. So, you can do so many products we can expand into so many products. All of it is natural and originating from Ghana. I am also adapting my business to the environment. The things that I'm surrounded with is what I want to use. The black soap is so popular. [ENT SM]

Yes, I'll do a showroom and display the products. Customers can make their selections, then we make the adjustments. [ENT FD]

No, I'm planning to design my own. I'm planning that there won't be so much pressure on me. I'll have the time to sit down and design my own things. [ENT FD]

Get licensed, that allows me to be seen as a registered herbalist. (ENT HM).

So right now, I do the medicines at home. I want land, vehicle and a place where we can build a factory and the machines for that factory. For the medicine, I want to be able to bottle my products so that I can start displaying my products. My future is finding a hospital or clinic that I can create my own medicine, do my medicine and use it to heal. I get calls from all over the country, but because I don't have anywhere for them to stay, to sleep and I can't receive them, I must package it and send it to them. But if they were with me, I could take proper care and make sure that I administer the medicines properly. [ENT HM]

OK, for now I have not gone into the secondary level. We are up to the JHS level. Government books dominate at the secondary school level. So here in Ghana it is the poor that go to government schools at primary level. Everybody goes to international. None of the ministers send their children to government schools, no minister. They all go private. [ENT PC]

I would like one of my children to come and handle it because I'm growing old. So, it's the first boy. He can do it alongside with the pharmacy. So, if he does pharmacy, I'll open the pharmacy shop for him. You can employ the pharmacy technicians and then you supervise. There are many pharmacists whose parents do not have money to open shops for them. I'm hoping my second boy will enter the business before I leave. [ENT PC]

The inclusion of business professional is important for the future of these businesses but this must be done with careful consideration.

I have trained the intellectuals; they know how I run my business. It has been the tradition that everyone knows how director wants things done. I have told them how I want things done. For

example, there's no way you are going to shout on a customer. What my uncle taught me, I have yearly passed it on to the team. I have trained them on all platforms, sales, accounts, productions etc. The traditional knowledge is in the system so even when I'm not around it is working. I have the top guys who are also making sure that things are happening as they should. When I travel and come back, everything is intact the way I want it to be.

4.4.8 Knowledge Intersections

All the businesses exist within the modern Ghanaian economy which immediately implies that they must interact with international business systems. As Ghana was formerly under British rule, the western systems in operation are British. In economics as well as in education, it is the British systems that dominate. As such Ghana has a dual economic and educational system that is commonly referred to as the formal and informal economic sector and formal and informal education sector. What are the intersections between these sectors and how important is this to the entrepreneur's success? The research revealed many points of intersection between the entrepreneur's indigenous education and their formal education which also translated into their business. There were also points of disequilibrium identified which were antagonistic to the businesses. Table 4.4 provides an outline of some of the intersections between indigenous and western knowledge systems that the entrepreneurs spoke about. Some are positive, creating equilibrium spaces where both knowledge systems can exist productively, others are destructive to indigenous knowledge.

Table 4. 4: Knowledge Intersections

Variables	Equilibrium	Disequilibrium
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<p>Labour:</p> <p>Labour costs are expensive, however other farmers have a way round this without resorting to weedicides.</p> <p>Does it really work out cheaper when you count the cost? Loss of valuable crops, health, eventual yield reduction</p>	<p>One farmer said he has discovered a way of using the weedicides without destroying the cocoyam</p>	<p>Weedicides and the destruction on important local food crops/reduction in yield.</p> <p>Destruction of soil animals and fertility. Being encouraged by government agricultural professionals</p> <p>Erosion of trust in government as they work against the interest of indigenous people</p>
<p>Introduction of professional services into the business</p> <p>Entrepreneurs use experience to carefully manage transition of professionals into the business.</p> <p>Exchange of knowledge between entrepreneur and professional</p>	<p>Construction – order of introducing professional: production, administration, sales, marketing, security, IT successfully introduced into an Indigenous business</p>	
	<p>Basic secondary science used to improve the quality of soap. Ghana Standards Board worked with entrepreneur to improve overall quality of soap, packaging, move from home to factory</p>	
	<p>Ghana standards board worked with entrepreneur to develop the first standard for black soap</p>	
	<p>Government agricultural experts very</p>	<p>Government agricultural</p>

	helpful for marketing of products	professional also pushing practices that are not helpful to indigenous entrepreneurs such as use of chemicals. Lack of understanding of the needs of indigenous businesses and therefore not adequate support provided
	Standard prices for cashews now set for farmers	Government still not supporting the processing of cashews meaning that most revenue goes out of the country
	Record keeping, packaging, measurements, calculations, experiments, accounting and financial management, mobile technology, internet, and general operational skills	
	University students brought graphic design skills to make the books attractive	
The use of machinery means that indigenous businesses have come to rely on electricity. Therefore, Ghana's energy crisis has	Modern energy sources such as electricity has helped to increase productivity	Lack of energy availability forcing indigenous businesses to export work abroad, job losses or factory closedowns

impacted indigenous businesses with jobs lost		
Introducing machinery into indigenous businesses without providing the maintenance knowledge is counterproductive.	Machinery and various equipment used in indigenous businesses	Lack of maintenance knowledge for these machines
Government appears to be doing well in providing training and certification for indigenous medicine business	Product preservation, improvements, experimentation, certification	
Indigenous children are trained in business from age of 6 so by the time they are teens, they can manage the family business. By also providing European education to this age provides opportunity to bring the 2 knowledge systems together. If this is managed well, it could be very beneficial to the	Government supporting communities and families with free secondary education. Reducing financial burden on indigenous families and increasing business skills to support indigenous businesses	Concern over loss of IK as European knowledge increases its grip

country		
Well-meaning people with book knowledge but lack practical experience of indigenous business often provide solutions that are problematic rather than beneficial to the business		<p>There's a disconnect between professionals and IK entrepreneurs. Generally, professionals do not understand how indigenous businesses work and this can be dangerous for indigenous businesses.</p> <p>Book knowledge does not translate well into indigenous business practice</p>
Indication of quality of indigenous firms that large firms are threatened by them. Government must develop strategy for protecting smaller businesses		<p>Large multinationals destroying the supplier chain of Indigenous businesses.</p> <p>Government supporting multinationals.</p> <p>Business has reduced as a result and therefore unable to support training of university students therefore preventing the transfer of IK to next generation of entrepreneurs</p>
For indigenous businesses that rely on local water bodies for their businesses, the		<p>Destruction of major resources, water, needed by indigenous businesses.</p> <p>Lack of water destroyed factory,</p>

destruction of major rivers, has had a negative impact		breakdown of water pump, unable to repair.
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From education, the basic sciences, mathematics, and technology have been mentioned.

University students also brought in specialised skills such as graphic design.

OK, the book must look good and nice. So, they had the knowledge to do the designing of the books with the pictures and they designed it nice, so it looked good. Made it look attractive, designed the cover so that when it goes outside it will be attractive. So, they helped to lift the work. [ENT PC]

The careful introduction of business professionals was also important. Professionals such as administrators, marketing, accounting, sales, and production. However, it was stressed by the entrepreneurs that to be successful, the professionals had to be introduced one at a time and carefully monitored. Proper knowledge exchange had to take place slowly between the entrepreneur and the professional to ensure they understood each other's role. Especially important was the understanding of the indigenous culture by the professional.

As the factory was set up, I started to introduce professionals. I first got myself a production manager to oversee operations. Then I got myself an administrations manager, who is the general manager. Then the sales manager. The cashier, the sales personnel and the security, the factory hand, the carpenters came in one after the other. Production, administration, Sales, marketing, security. Also have accountants. Use IT a lot and comes under accounts. [ENT C]

So, it has been the tradition that everyone knows how director wants things done. For example, there's no way you are going to shout on a customer. So, what my uncle taught me, I have yearly

passed it on to the team. I have trained them on all platforms, sales, accounts, productions etc. The traditional knowledge is in the system so even when I'm not around it is working. I have the top guys who are also making sure that things are happening as they should. So, when I travel and come back, everything is intact the way I want it to be. [ENT C]

Sometimes they will do their calculations and bring it to me and I will correct them, because of the in-depth knowledge I have of the business. They know that if they don't do their homework well, they are in trouble. [ENT C]

The prepress people, those who do typesetting, designing, three of them were degree workers. Right now, there's only one left. They came from Tech (KNUST) and the university itself used to give us the people to come and understudy us. Yeah, from the university. Every year, about three students would come and study here, and some of them would come and work with us. [ENT PC]

The government has also contributed some positive steps that were mentioned by the entrepreneurs. This includes, free secondary education, setting of standard prices for cash crops, the Ghana Standards Board to support entrepreneurs, agricultural professionals to support farmers and providing opportunities for marketing products, government support for the development of herbal medicines through proper training for entrepreneurs, provision of certain equipment and machines, energy supplies such as electricity.

So, Food and Drug came to do a workshop for us and it was fantastic. It was there that I learned about preservation and I learned how to do cream. So right now, I can do my own cream. I learned a lot from them and that's government help. So far so good, that workshop was very fantastic, and that's also helped me to cook my medicine, I didn't used to do that before. [ENT HM]

The people we have used is the agricultural people mostly. So, these are the people that come in to help us. You can contact them and they can come in to help. So, you can take for example Ministry of Agricultural people and ask them to show you how to use the chemicals. They can teach you how to use it, those are the things that they can help with. [ENT CF1]

However, the entrepreneurs also highlighted disequilibria created by the government. This included government agricultural professionals lack of respect for indigenous knowledge and pushing for the use of chemicals, government not supporting the processing of cashews leading to the loss of much revenue, inability to maintain energy supplies, protect water bodies from destructive illegal industries, provide technical knowledge for maintenance of machines and protecting indigenous businesses from the destructive behaviour of large multinationals. Most importantly, there appears to be a complete disconnect between the formal and informal educational systems such that those professionals being trained by the formal system have little understanding of indigenous knowledge systems.

4.5 Secondary Themes

The data analysis also identified some secondary themes that are important in the answering of the research question.

4.5.1 Resilience

In a complex and ever changing global and national markets, businesses and entrepreneurs must be resilient to survive and grow.

Observed resilience in the entrepreneurs:

I sold the firewood and went to school, after school I would continue finishing at 9pm. I would do my homework while selling or manning the shop. Weekends I would go to his shop and sell the roofing sheets. [ENT C]

So, when I started my first shop, I was open by 4.30-5am to open the shop. At that time the wealthy shop owners that were money changers would open their shops around 9-10am. [ENT C]

I work for three good years with my mom and got to know the business very well. My mom would entrust part of the business to me and sometimes I will be away for two to three days. While I was waiting for them to harvest the plantain and cocoyam. I would use the money mom gave me to buy spinach, come back to the village, sell and go back and get the plantain and cocoyam. And so sometimes I will come back even with profits on the money that my mother gave to me. [ENT FD]

I would walk to go and give samples to the different schools and sometimes I would leave home at 8:00 o'clock and the whole day I'll be out. I did that for many years. [ENT PC]

Observed resilience in the businesses.

The company got government on their side, came to buy the farms and of course gave shares to the government. And they came here to tell me that they would not give me anymore oil you know, and that really crushed my business. [ENT SM]

It went down in 2014, after only two years and it went down. The amount of money I have wasted in that business, I could have bought about 5 articulators or even buy land. [ENT PC]

So last year we had a terrible incident, it was a big setback but it did not have any effect on the business. The studio burnt down completely but thankfully; all the apprentices were able to escape. Police and fire service came to do the investigation. It happened 10th of June. We've been able to rebuild it now to this beautiful place. So, when you work, you need to put some money aside; and that's what we've used. [ENT FD]

4.5.2 Government Interventions

The government of any country controls the economy through its governance structures, policies and budget. Therefore, the decision of the government directly impact the success of all businesses.

Government Interventions Requested:

Government has not decided to help individual industries. [ENT PC]

I'm not a politician but sometimes you need to mention it. During the last administration there was something called dumso by electricity operations. Sometimes you will come to the office the whole day and there will be no electricity to do your work. I'm also a businessman, the business was being destroyed. [ENT PC]

Yes, I need qualified people who will do the job. Right now, if we're doing costing, I struggle. Things are changing, prices are changing all the time. Water and energy, transportation, and taxes and so forth, it's not an easy calculation to do. [ENT SM]

So, because of the water in this area, that's why we built the factory here. I needed water, but they have ruined the water now. We need the water for everything, but now they've ruined the water. It is very sad. [ENT SM]

4.5.3 Indigenous Philosophies in Practice

The results identified Akan philosophies undertones throughout the research. Some were more clearly identifiable but the details were not specifically explored by the research. This is important as it would likely impact their business decisions and therefore directly impact the success of the business.

Community Engagement:

When the farmers finished selling the cocoa, they can also use the pods to get extra money. So, I showed them how to do it. [ENT SM]

This is a big question. I look after a lot of people. In my family, I take care of all the young people. Some have finished university; I'm still looking after some. Apart from that, in my church I look after a lot of the young people. And there are some who are also not in the church, I look after them too. Right now, I've got about 30 people apart from my family that I am looking after. Some are in university, some in training colleges, some in senior high school. [ENT PC]

It's true I'm not married, but some of my older brothers and sisters have got children, so I help to take care of them. I also have my parents, and some of my younger siblings as well. Then I also have the farm workers and the farmers around here who are also trying to build their farms. They're not as

advanced as I am, so I help them as well. I show them what I do and I help them so that they can also advance in their work. [ENT CF4]

I also do transportation and I've also created some water wells, that helps to supply water to the village. [ENT CF3]

4.6 Justification of Research Methods

The results indicate that key themes have been identified that contribute directly to answering the research question of whether AIEKS can be used to drive successful businesses within the modern Ghanaian economy. Since the answer is in the affirmative, the aim of investigating AIEKS as a viable pathway to context driven employment within the modern Ghanaian economy is also achievable. The use of in-depth qualitative semi-structured interviews was therefore an appropriate method for collecting relevant research data that answered the research question. However, a mixed methods approach to collect some quantitative data would have contributed further to answering the research question. For example, collecting employee and revenue statistics and asset valuation.

4.7 Chapter Summary

The chapter has covered the profiles of the nine participants. Using the results of section A of the interviews, each participant has been identified as an indigenous Akan through their matrilineal identities, language skills, level of formal education, risk profiles and community centeredness. The key findings of the research included a four phased Akan indigenous entrepreneurship educational system that begins at age six and graduates between ages sixteen to twenty years. The primary educators were identified as parents, extended family and community members. The participants

exhibited significant business skills and business development skills. Generational knowledge transfer was also evident across the group. Various indigenous financial strategies were identified which were community centered and aligned with the risk profiles of the entrepreneurs. These indigenous financial strategies supported scaling of the businesses organically without the need for borrowing. All the entrepreneurs were committed to the future of their businesses through diversification and knowledge transfer to the next generation. Operating within the modern Ghanaian economy means interactions with other knowledge systems. The study found that the entrepreneurs worked in intersectional spaces with western knowledge systems. Some of the knowledge created equilibrium and others disequilibrium and it was important for the entrepreneurs to manage these spaces to maintain business success.

The results also identified important secondary themes that impact the answering of the research question. This included resilient entrepreneurs linked to the Akan value system of hard work and resilient businesses based on combinations of business strategies. Government interventions were also found to be important to the success of these indigenous businesses. Finally, the undertones of Akan philosophy were identifiable in the results. Indications are that Akan indigenous entrepreneurship offered a viable career option to the participants and the results answer the research question.

Chapter 5: Analysis of the Key Findings

5.1 Introduction

The research outcome suggests that AIEKS can be used to drive successful businesses within the modern Ghanaian economy with the following findings: 1) Indigenous entrepreneurship education is common for Akan young people and the primary educators are parents, extended family and community experts making such education accessible to most young people. 2) The occupation of the indigenous educators was in various areas of entrepreneurship including farming, petty trading, soap manufacturing, herbal medicine and merchandising. 3) The acquisition of significant business skills by the age 16 to 20 years. 4) The young entrepreneurs can innovate to improve their family businesses and identify new opportunities for creating new businesses. 5) There is a four phased approach to knowledge transfer that results in the significant business skills development. 6) The study also identified various indigenous financial strategies utilized by the entrepreneurs to manage their businesses. 7) Expansion and diversification were found to be central strategies for the entrepreneurs. 8) In a modern economy the entrepreneurs operated in spaces where western knowledge intersected with indigenous knowledge and careful management of the two was needed to ensure success. 9) The constant challenges of the modern business environment meant that the businesses had to be resilient and sustainable to survive. The analysis identified resilient entrepreneurial journeys and sustainable practices in most of the businesses. 10) Finally, government plays a key role in supporting the success of SMEs and the results indicated some level of government support for the entrepreneurs.

5.2 Interpretation of Key Findings

5.2.1 Indigenous Entrepreneurship Education and the Educators

The research agrees with Arthur (2017) that the Akan indigenous entrepreneurship education is primarily from parents, extended family members and other community experts making such education accessible to most young people. Among the nine entrepreneurs interviewed, each of them mentioned the important role that both parents played in their entrepreneurial education. Grandmothers and uncles are also specifically mentioned as extended family members. Training primarily by parents, with special mention of mothers and grandmothers. Adjaye & Aborampah (2004) also identify sociocultural transmission primarily through the extended family and elders. Wiafe (2023) likewise notes the importance of Africa's community approach to education which ensures that all children have an equal opportunity to education irrespective of financial background. Another factor that is clearly identified is how invested the entrepreneurs are in their communities. All of them are committed to giving back not only to their extended families but also to the community. There is an implication here that perhaps the entrepreneurs are reciprocating for what they have received from the community in the past. Figure 4.1 supports the strong connection to community and the matrilineal system. Figure 4.4 also highlights family in terms of risk considerations and starting capital. This agrees with GLSS7 (2019) that family and friends are the biggest providers of financial support for entrepreneurs.

The identification in Figure 4.1 of each of the entrepreneurs with their mother's hometown is a key indicator to the matrilineal system in which inheritance and social structures follow the female bloodline (Oduyoye, 1995; Badejo, 1998; Arthur, 2017). We are dealing with Akan indigenous knowledge systems in the education of the entrepreneurs in this research.

This is in line with literature which indicate that in indigenous communities, training is primarily by parents with women playing an important role (Kwadwo, 2002; Arthur, 2017). At a certain stage training is gendered and the males are given under the care of fathers to train their sons although mothers continue to play an important role (Kwadwo, 2022). Akan entrepreneurship education is immersive education that begins at an early age and as such would seem natural for the mother and grandmother to play important roles in the young people's education.

Akan women, however, have an elevated and equal position to their men in society and therefore have an equal responsibility to educating the next generation (Oduyoye, 1995; Badejo, 1998). Perhaps more so since socially the children belong to their bloodline (Arthur, 2017). Their role as educators is also an indication that they are also entrepreneurs and experts enough to educate future generations. Dabic et al. (2022) indicate that there are more female entrepreneurs in Africa than anywhere else in the world.

5.2.2 Occupation of Indigenous Educators

The study identified the educators as entrepreneurs in various businesses and it was the skills and knowledge from these businesses that they used to train the young people. Apart from the father of ENT PC, who was a soldier, none of the participant entrepreneurs mentioned that their parents had any form of formal education. However, as a soldier, he did not have much influence on the entrepreneurial training of his son. The research suggests that the knowledge of these educators was Akan indigenous entrepreneurship knowledge as they were all identified as indigenous Akan by the participants.

ENT PC and ENT FD identified their mothers as being petty traders. ENT FD clearly outlines working for several years with her mother while she was at school and being intrusted with the business by her mother at secondary school age. Although ENT PC did not provide such a direct account, the influence of his mother's training was evident in the early stages of his business. He recounts carrying his manuscripts, on foot, from school to school as his sales strategy. This method is very typical of petty traders. The findings agree with Otoo et al. (2011) on the importance of women food venders in poverty alleviation and meeting family needs. ENT SM mother and grandmother were soap manufacturers. He indicates clearly that he gained all his knowledge from them and went on to take over the management of the business. The identification of soap manufacturing as a traditional industry is supported by Ogunbiyi and Enechukwu (2021) who traced the production of black soap to Ghana and Nigeria.

ENT HM's father was a well-known herbal medicine practitioner in his community and this was the knowledge used to train him. Recent research supports the wide knowledge of herbal medicine and its integration into the national hospital system. Boateng et al. (2016) highlight the growing interest internationally and how Ghana is integrating herbal medicine into its hospitals. ENT C was trained by his uncle who was a merchant of firewood and roofing sheets and these were the two businesses used to train him. Akan is an agrarian society and all the parents and grandparents of the farmer participants were mentioned as farmers, specialising in various crops. Of the industries identified, the most established is farming. Ozainne et al. (2014) traced agricultural production in West Africa to 2200BC. Havinden (1970), indicates centuries of cultivation by the Akan of West Africa and Bowdich (1819) describe Akan farmers of 200 years ago. Each generation are the educators of the next generation. The knowledge of the educators identified support Adjaye and

Aborampah (2004) that the Akan have a systematic approach to knowledge management, both verbal and written codes.

The research suggests that the indigenous educators, through the medium of entrepreneurship have successfully preserved knowledge that has national and international value. Ghana's agricultural products are already world renown. Olajuyigbe et al. (2017) comparing the antibacterial activity of black soap with popular medicated soaps found black soap was significantly more active in inhibiting and killing bacteria than medicated soaps. Asase (2023) indicate that the herbal medicine industry is one of the fastest growing industries in the world. The Akan of West Africa, with their indigenous knowledge and entrepreneurship prowess are set to fuel these industries in the coming decades as they have done for farming.

5.2.3 Business skill Developed.

The analysis identified the acquisition of significant business skills by the age 16 to 20 years. Various business skills were displayed by the entrepreneurs. Some of these skills were learnt directly from the educators, and include customer service, resilience, sustainability, diversification, production, financial management in the form of self-financing and expenditure reduction, language skills and sales. However, marketing, supply chain management, quality control, experimenting with new products, practices and supplies, appear to be new or improved skills acquired by the participant entrepreneurs. These findings agree with Buame et al. (2013) who found that formal education was not the key to entrepreneurial success for women, but skills, knowledge and attitudes acquired through self-knowledge, social knowledge, interpersonal skills and experience from society. The important business skills needed were goal setting, decisiveness, being pragmatic, resolute, flexible and self-confident. The findings also support the research

question. The skills identified are important for the success of any business and the entrepreneurs indicated their direct contribution to their business success.

Young people when given useful practical skills are prone to experiment and innovate with it. The entrepreneurs innovated with their family businesses bringing improvements in sales and quality control. Biney (2019) also found that even in difficult entrepreneurial environments such as street vending and hawking, the young people were innovating. The entrepreneurs have also learnt resilience to overcome financial barriers and educational disappointments. Such resilience appears to have impacted their drive to improve quality, secure supply chains and find novel ways of marketing their products. Ent SM identified that the basic sciences he learnt in school was useful in the quality control of his products (Table 4.4). There is a certain level of freedom that is given to these young entrepreneurs that allows them to experiment, make mistakes and learn from it. ENT CF3 received land and yam at the age of just 10 years old to grow and keep the proceeds

5.2.4 Business development

Young entrepreneurs are especially capable of innovating to improve their family businesses and identify new opportunities for creating new businesses. The results suggest the development of an entrepreneurial mindset through the immersive education that led to deep insights into the family businesses. These insights provided opportunities to identify gaps, innovate and create solutions or new businesses. ENT C identified a customer service gap, came up with a customer engagement plan, operationalized it and expanded the market share of his family business. ENT SM identified gaps in the areas of supply chain development and quality control for his family's soap manufacturing business. He saw the demand for soap and the possibilities for expansion of the business. He innovated to fill these gaps to take advantage of market demands. ENT SM, ENT C,

ENT HM and the farmers continued in the same industry as their family businesses. ENT FD and ENT PC developed their businesses in a different industry from their educators who were both petty traders. The findings affirm the entrepreneurship definition of Akinyoade et al. (2017) as identifying opportunities, allocating resources and creating value. Per the definition each of the participant identified opportunities in their respective environments, allocated the necessary resources and subsequently created value.

AIEKS provides alternative, affordable training in business development to young people who cannot afford formal education. This agrees with Wiafe (2023) that Africa's community approach to education ensures that all children have equal access to education irrespective of financial means. AIEKS develops an entrepreneurial mindset that identifies opportunities to create new businesses, improve and expand existing businesses. Such abilities drive business success in a modern economy. The aim for context driven employment is also achieved here. The entrepreneurs are innovating and creating businesses and jobs that fill gaps identified in communities. The community benefits directly from these businesses. ENT PC identified a gap in educational materials for pupils in his own school. These pupils were the first beneficiaries of his business before extending to other schools in the community then regions across the country. The identification of gaps, innovating and creating new businesses to fill these gaps translates to new knowledge. This concurs with Levine (2002) that ordinary people are also creators of knowledge.

The success of these entrepreneurs beyond that of their educators implies additional factors that contributed to their success. Although some are outside the scope of this research, they are worth mentioning here to highlight the complexity of creating an entrepreneurial mindset in a modern economy and perhaps trigger possible future research. The first is greater exposure to the modern

world than their educators and the impact that this may have had on their business mindset. Table 4.4 indicates interaction with government experts who are directly supporting their businesses, the introduction of business professionals into some of the business spaces with great care and access to modern media tools such as mobile technology and internet that provides exposure to the wider world. The second is greater access to basic western education and its impact on their business mindset (Figure 4.2). Howell & Signe (1995) and Zegeye & Vambe (2006) both indicate that IK is impacted by external contact. The third is the notion that the entrepreneurs faced many barriers that became the springboard for seeking solutions, which led to the identification of market gaps that they were able to fill through their own experiences. Finally, there is the possibility that there exists a ready market, in the modern economy, for indigenous products and services as the world also becomes more exposed to indigenous ways. These suggestions will require further research.

5.2.5 Knowledge transfer

The data also suggests that there is a four phased approach to Akan indigenous entrepreneurship knowledge transfer that results in the significant business skills development. Valuable knowledge should not be lost but passed on to future generations. All the entrepreneurs acknowledged receipt of indigenous knowledge from their educators. In turn they are committed to following the cycle of education by transferring it to their children and to the community. All the entrepreneurs are involving their children in their business planning to transition the business to them. It is interesting to note that these entrepreneurs share their knowledge with the community and beyond. ENT SM trains prisons to manufacture their own soap. He does not manufacture the soap to sell to the prisons for profit but rather teaches the prisoners to make it. University students, other young people, employees and local farmers are examples of community members who have benefited

from the indigenous knowledge of the entrepreneurs. The research identified a structured cycle of education within the Akan indigenous entrepreneurship system. There appears to be four distinct phases that takes the student from observation to business creation and development over a period of approximately 15 years. Figure 4.5 provides a diagrammatic representation of the indigenous entrepreneurship education cycle.

Phase 1 which is fully supervised by the matrilineal and extended family can begin as early as 6 years old. Here the child is learning mostly by observation with small responsibilities that are fully guided by the parent educators. Phase 2 the student takes on increasing responsibility in the business but still under the supervision of family and community members. Towards the end of phase 2 the student will take on responsibility of running part of the family business. Phase 3, the young entrepreneur is given the responsibility of managing the family business or starting their own business. At this stage the young entrepreneur is free to innovate and apply their ideas to improving the business. Phase 4, the young entrepreneur is now a business expert and moves into scaling and diversifying the business. Each of the entrepreneurs transitioned through these stages. By the ages of 16 to 30 year the entrepreneurs had reached phase 4 leading to a lifetime of productive employment and creating employment for others.

An important pillar of entrepreneurial success is a well-structured entrepreneurial education and mentorship program that prepares young people for success. The research aligns with Akan cosmology, in which Odumankoma first creates order, then knowledge then death (Arthur, 2017). There is also agreement with Adjaye & Aborampah (2004) who indicate that the Akan have a systematic approach to knowledge management. It is therefore not surprising to see a system of order and structure in Akan indigenous entrepreneurship education which graduates students by

the age of 16-20 years. Education that creates youth capital that contributes over a lifetime into the economy of Ghana.

Another factor that may impact the results is the Akan value system of hard work which is demonstrated by the entrepreneurs. Antubam (1963) and Arthur (2017) stress that this is one of the most important value systems of the Akan. In fact, in Akan, to be lazy is a disgrace to the family and this may explain the diligent involvement of family and community in the entrepreneurship education of the young people to ensure the value of hard work is learnt from an early age.

Akan cosmology has significant impact towards the sociopolitical organisation, which may also apply to Akan socio-economic leadership (Apaw and Tang, 2023). The Akan cosmology directly impacts the behaviour of the entrepreneurs in their business decisions and ultimately the economy. The research results also support the concept of community knowledge or knowledge commons. Sen (2005) asserts that knowledge is owned by the community and not the individual. Joranson's (2008) and Gupta (2010) extend this further to the importance of crediting the benefits of community knowledge back to the community. The research showed that Akan indigenous entrepreneurship knowledge was shared freely with community members so the community can benefit from knowledge that is seen to be community derived. The behaviour of the entrepreneurs in sharing the knowledge is not typical of western entrepreneurship which focusses on the protection of intellectual property.

There is a contrast here between the Akan philosophy verse western philosophy, the community worldview verses the individual worldview. The behaviour of the entrepreneurs aligns with the Akan philosophy underlying community and knowledge, the idea that Odumankoma created knowledge

and gave man the ability to also create knowledge. Secondly that knowledge is both physical and spiritual (Safo-Kantanka et al., 2023). The impact of philosophy on how the entrepreneurs conduct business is significant and perhaps highlights the many challenges educationalist have faced in advocating for the inclusion of indigenous knowledge into formal education, two different worldviews that can be very antagonistic to each other. Dei & Jaji (2018) have suggested that changing education as it is now will require spaces where multiple knowledge systems can co-exist and benefit each other. Ezeanya-Esiobu (2019) stresses that western philosophy and traditional African philosophy must come together to learn from each other. However, in entrepreneurship, this research suggests that the integration of the two knowledge systems could create a real competitive advantage (Table 4.4).

The findings disagree with research that has hitherto seen indigenous knowledge as unstructured. Moris (2010), Grier (1992) and Zegeye & Vambe (2006) highlight early literature as discounting indigenous knowledge as irrational and limited. This research results show otherwise. The reason for previous findings is possibly the application of a western worldview to interpreting the results, the two are not so well aligned and could lead to wrong conclusions. As indicated by Boven & Morobashi (2003), there's a mismatch in trying to define IK through western theoretical perspectives because of its holistic nature.

5.2.6 Indigenous financial strategy of *nkakra nkakra* (little by little)

The study also identified different indigenous financial strategies utilized by the entrepreneurs to manage their businesses. Finance is undoubtedly one of the most important resources needed by entrepreneurs to succeed in business and the skills to manage the funds. Money is needed to purchase business assets such as buildings, land and equipment, pay labour costs, purchase

business supplies, cover family expenses and to generate revenue. The study indicated that indigenous entrepreneurs are risk averse, avoiding debt and preferring organic growth. Figure 4.4 indicate that only 2 of the entrepreneurs accessed business loans. Reasons for not accessing loans are overwhelmingly family considerations and for the two entrepreneurs it is the high interest rates. Figure 4.4 also indicates the entrepreneurs' sources of capital. All of them received various forms of business capital from their families. Figure 4.1 also indicates that all the entrepreneurs have social commitments to family and community. This level of connection to family and community is likely to impact decisions on debt.

So how do these Akan indigenous entrepreneurs purchase assets, pay for labour, buy supplies, provide for their families while developing the business? The study identified many different capital innovations used to cover 'costs' without the necessary exchange of funds. Embedded in a family and community (Social Capital) of trust relationships (Trust Capital), entrepreneurs can form labour partnerships with workers, family members and fellow entrepreneurs to meet all labour requirements (Human Capital). Akan indigenous entrepreneurship education graduates the students at 16 to 20 years, bringing strong, hardworking youth into the economy for a lifetime of productivity (Youth Capital). Hard work and health are two of the important values of the Akan and these young entrepreneurs would have been trained to work hard and maintain good health (Health Capital). The research results give many examples of the hard work that the young entrepreneurs had to do as part of their training from a young age. Knowledge is wealth and the world now operates in a knowledge economy. The Akan knowledge systems is unique to them and therefore offers a competitive advantage in business which in turn translates into capital (Knowledge Capital). Danso-Abbeam et al. (2021) and Cadbury & Mondelez (2024) showcase examples of how the Akan have used their knowledge in products such as cocoa, yam, pineapple and Kente.

The study identified the critical role played by the women of the family in each of the lives and experiences of the entrepreneurs (Gender Capital). They were a critical part of the entrepreneurial education of the entrepreneurs, provided assets of various kinds, and the social and moral support needed by the entrepreneurs in the starting phases of their businesses. To estimate this family input over a period of approximately 15 years would outweigh investor capital in small businesses. The matrilineal system of the Akan (Oduyoye, 1995) makes gender capital particularly valuable.

As an agrarian society, land for the Akan is very important. The Akan have land systems that ensures every family has rights to land or can obtain land from the government or traditional leaders to provide for the family (usufructuary rights to land). Thus, all Akan can obtain free or leased land to become an agricultural entrepreneur (Governance Capital). The research results indicated that all the farmers were supported by family or government land to start their businesses. Here economic activity is largely influenced by Akan philosophy; the matrilineal family owns the land (Arthur, 2017).

Entrepreneurs diversify products to ensure revenue can be generated in every season (Diversity Capital). Such diversification supports organic growth at a slow but steady rate. The farming community is especially excellent at diversification enabling the family to live off the land while generating funds for expansion. The conference paper on Akan Indigenous Farming and Sustainable Development Goals, detail the various diversification strategies used by the Akan to leverage the resources of the land. However, all the entrepreneurs leveraged this skill to scale the business without resorting to borrowing. It is important to note that traditionally cash-based transactions were not common among the Akan although they contracted international business with gold dust and cowries. Most business transactions were based on these relationship exchanges (Bowdich, 1879, Arthur, 2017). In the modern economy Akan indigenous entrepreneurs continue to use

indigenous strategies while generating financial capital from sales and plowing back into the business. The participant entrepreneurs are leveraging both financial systems but preferring to remain on the side of organic growth.

These findings support the answering of the research question. Akan indigenous entrepreneurship through its community theoretical perspective can innovate on many financial strategies to support the businesses needs for capital assets, labour and supply costs. In a cash based modern business environment, they are also able to generate sales to provide cash needs. The findings therefore support the argument that AIEKS can drive successful businesses within the modern Ghanaian economy.

The findings of the research have been interpreted through the lens of Akan philosophy. However, if we were to consider the results through western perspectives where the strong community base is missing and the first point of call for business capital is the financial institutions, we may see something different. Based on their financial background, educational background and therefore their ability to put together a credible business plan, it is unlikely that reputable financial institutions would lend these entrepreneurs any substantial amount of money to start their businesses. Secondly, it is unlikely that they could access these funds at any reasonable interest rate. Abor & Biekpe (2006) investigated factors influencing debt in SMEs and concluded that location, size, age, profitability, educational background and gender were the major factors. Certainly, our conclusion would likely be that the entrepreneurs do not qualify for business loans hence the observation of risk aversion. In other words, they face substantial financial barriers and therefore intervention is needed. However, it is clear from the theoretical perspectives of the entrepreneurs that there are more important factors than interest rates or loan qualification.

Although some level of low interest loans may be helpful, family and community considerations and the concept of organic growth appears to be more important. This agrees with GLSS7 (2019) that family and friends are the main source of business capital for SMEs.

5.2.7 The Future

The results indicate that expansion and diversification were found to be central strategies for the entrepreneurs. The research found that all the entrepreneurs have pathways to expansion and diversification that aligns with their principles of organic growth. Expansion is both national and international. Interestingly at the point of scaling nationally and internationally, business professionals become important to the businesses. Marketing, Sales, Production, Finance and IT professionals become important. As the business crosses into national and international markets, the business is entering spaces where western knowledge dominates and must be able to engage in such spaces. These challenges have existed since the Akan started to engage with European traders. It is for this reason that the first Asante kings sought European education for the young people (Kwadwo, 2002). Today the challenge remains for indigenous entrepreneurs. However, they can now employ business professionals to work for them in these international spaces. The study suggests that the entrepreneurs are navigating the national spaces comfortably and some are also handling the international spaces well, namely ENT C, ENT PC, ENT HM, and ENT SM.

The results support the research question that the entrepreneurs can navigate the complexities of the modern business market. Their indigenous knowledge plus their basic western education supports expansion into the community and nationally. The integration of business professionals supports international expansion as seen in ENT PC, ENT SM, ENT C and ENT CF1. Although ENT HM has internationalized without employing business professionals, his products are mailed

internationally to clients which he handles himself. The entrepreneurs are also educating their children to tertiary education (Figure 4.1). This generation are expected to input this knowledge into the businesses. However, this needs to be handled with care. The data implies that the businesses have a future.

According to the plans being made by the entrepreneurs; the results suggest that they all intend to maintain the businesses for their children. From a western perspective, entrepreneurs have the option to sell their businesses rather than pass it on to family. However, is selling any of these businesses an option for any of these indigenous entrepreneurs considering the contributions of family and community into the businesses?

According to Ochonu (2018) the entrepreneur holds the economic hopes and aspirations of many African communities. For the Akan community, Arthur (2017) also states that precolonial entrepreneurial activity was primarily for the provision of the family and community. Beyond community borders, business was handled by the chief and community leaders. Some of the entrepreneurs have already broken these barriers, and it is expected that for all the businesses, the next generation will operate nationally and internationally.

5.2.8 Knowledge intersections

In a modern economy the entrepreneurs operate in spaces where western knowledge intersects with indigenous knowledge and careful management of the two was needed to ensure success.

Table 4.4 outlines the knowledge intersections identified by the indigenous entrepreneurs, the spaces where western knowledge and Akan indigenous entrepreneurship knowledge intersect and what happens when they intersect. The results indicate that some intersections create equilibrium

and others disequilibrium. Equilibrium occurs when the two knowledge systems align to support the success of the business. Disequilibrium is when there is antagonism between the knowledge systems resulting in damage to the business. For example, the introduction of free secondary education by the government was seen by the entrepreneurs as creating equilibrium. It appears that the type of western knowledge and how it is introduced is the key to success. Free secondary education offers knowledge such as basic science, mathematics, technology, reading, writing and language skills, record keeping etc. which is knowledge that the indigenous entrepreneurs have already identified to be beneficial to their businesses. When the government provides it free of charge it also supports the community, it is therefore accepted. However, the introduction of weedicides to reduce labour costs is antagonistic and create disequilibrium with the farmers. Such products reduce community engagements where farmers once got together to support each other to clear land, the weedicides destroy the quality of the soil, the source of their wealth and it destroys valuable food crops that feed the family. Both interventions are government led but receive different reactions from the indigenous entrepreneurs.

The results suggest that the indigenous entrepreneurs consider more than profitability in their acceptance or rejection of any interventions in their business spaces, they also consider the short- and long-term impact on the community. The western entrepreneur, except social enterprises, has the primary aim of achieving maximum profitability. They make profits first and then contribute to society later in their corporate social responsibility mandate. The Akan indigenous entrepreneur is community centered from the beginning because as the results indicate they are also community created. From the beginning family and community input into these businesses and the business inputs into the community. Thus, profit accumulation would be at a much slower rate than for a western enterprise. In this respect the research agrees with the work of Ackah et al. (2018) who

found that collective culture negatively impacts capital accumulation and human resource management. Although these businesses are profit focused, they are not territorial, they will share knowledge and support the generation of other businesses. This finding supports Darbi & Knott (2022) on coopetition, a system widely used in Akan where businesses collaborate for mutual benefit rather than seeing each other as competitors. The philosophy of the collective appears to dominate that of the individual. Prof. Sefa Dei (2015) stresses the importance of education for the collective good as opposed to the education of the west that privilege the individual self-interest. Looking through these lenses explain why certain variables in Table 4.4 created disequilibrium and others equilibrium.

Another example that supports this argument is the disconnect that can occur between professionals and the indigenous entrepreneurs. Both approach business decisions from different philosophical standpoints. The professional, although they may be Akan, has been educated to think maximization of profit. The indigenous entrepreneur has been educated to think community. The two will collide unless careful bidirectional education is implemented. ENT C and ENT PC stressed the critical importance of educating every member of the team to ensure that the business is run according to their mandate even in their absence. The education of the next generation to tertiary level and their introduction into these indigenous businesses should be carefully managed. Otherwise, their western educated mindsets can also create disequilibria in the indigenous businesses created by their parents. These findings support the research question as it identifies important factors that could support or prevent the success of Akan indigenous businesses.

These findings are well supported by previous research. The antagonisms that exist between indigenous knowledge and western knowledge has long existed and been widely documented. Nakashima & Roue (2002) and Acharya & Shrivastava (2008) emphasize the multidimensional nature of IK and its existence on multiple platforms or spaces. Soh & Omar (2012) also stress the holistic nature of IK and its focus on conservation and sustainability as core values. Boven & Morobashi (2003) indicate that there is a mismatch in trying to define IK through western perspectives because of its holistic nature. Heto & Mino (2023) researching 3 Ghanaian communities, identified communities of multiple consciousness and lived realities. Agrawal (2005) points to the destructiveness of IK by scientific knowledge. The antagonism also exists in the field of development and education. Vijayan et al. (2022) argues that there is a lack of political will for the recognition of IKS which could transform food systems to ensure ecological and socio-economic sustainability. Muyambo et al. (2022) also interrogates the injustice meted against IKS by Eurocentric thinkers. Ebhuoma & Leonard (2022) on the role of IKS in climate change adaptation in Sub Saharan Africa; Tawil (2013) on the inclusion of IK in global citizenship education; Oloruntoba et al. (2020) on the contribution of Akan indigenous knowledge to global knowledge production and development; Ogunyemi et al. (2022) emphasizes the value narratives of African IKS in management and business ethics. Each of this research identify the contributions IK could make to solving global challenges but faces many challenges.

The question that needs to be asked is through which theoretical perspective should indigenous research be interpreted? The research results would suggest that it should be primarily through the theoretical perspective of the indigenous participant. Contextualizing data through the world view of research participants would bring better understanding to indigenous knowledge. Better understanding in intersectional spaces could lead to better integration of IK and better outcomes

for global challenges. Many researchers continue to warn against theoretical frameworks developed in the west being applied in non-western environments (Chamlee-Wright, 1997; Quaynor, 2018; Keterere et al., 2019; Gumede et al., 2021). However, there is hope for integration. Ezeanya-Esiobu (2019) suggests western philosophy and traditional African philosophy coming together to learn from each other. Dei & Jaji (2028) suggest new educational spaces where multiple knowledge systems can co-exist and benefit from each other. Most importantly, Knaus et al., (2022) researched African youth activism for the decolonization for the academy to include African thought, languages and structures. Secure global commitment to African IKS to sustain an Ubuntu based humanity. The navigation of the participant entrepreneurs in their own intersectional spaces to create equilibrium provides an example of what could be achieved on a global scale.

5.2.9 Resilience

According to UNESCO (2021) resilience is not only the ability to plan, prepare and withstand adverse events but also the ability to recover and adapt for the future. The constant challenges of the modern business environment means that the businesses must be resilient to survive. The analysis identifies resilient entrepreneurial journeys and resilient businesses. The article published in the Australian Academy of Business Research in 2024, titled Akan Indigenous Entrepreneurship: A model of sustainability and Resilience, covers in detail the findings on resilience for this research.

The research observed resilience operating at the level of the entrepreneurs and at the level of business itself. Most of the entrepreneurs demonstrated resilience in two ways. Firstly, in terms of overcoming the formal education barriers they encountered. Secondly, their self application and discipline to hard work. They were prepared to consider alternative careers and to apply themselves to the hard work needed to succeed. They used their youthful strength to work long

hours and apply themselves to physical labour thus tapping into their youth and health capital. ENT C, ENT FD and ENT PC demonstrated this clearly. These young people were prepared for the challenges of entrepreneurship.

The businesses also showed resilience. ENT SM records a multinational company completely taking over his supply chain and refusing to sell to him. His business almost closed. Roostaie et al. (2029) use the term deliberate attacks and in this case, it was a deliberate attack on ENT SM's business with the intent of shutting it down. ENT FD's studio was burnt to the ground with the content of the building. This falls within Roostaie et al. (2019) definition of an accident impacting the business. ENT PC invested in a second business which failed due to government fiscal policy and hypergrowth putting a strain on the resources of the publishing company. There were multiple factors that negatively impacted this new business. The second company had to close to sure the survival of the publishing company. COVID 19 had a negative impact on most of the businesses. However, these businesses implemented their survival strategies revived and grew beyond their original level. According to Apaw & Tang (2024), the research identified some key descriptives of Akan resilience. These included the physical, mental and spiritual ability to withstand tough training, the development of new skills, adaptation to community value systems, the vision to identify new opportunities and the courage to pursue them. These enabled the entrepreneurs to withstand the shocks and rebuild their businesses. Indigenous Akan resilience therefore goes beyond the UNESCO definition by recognising that indigenous capital and an entrepreneurial mindset are part of resilience. Resilience cannot exist without identifying new opportunities after a negative event, reallocating resources to meet current needs and thus recreating value (Akinyoade et al., 2017).

5.2.10 Government support

Finally, government plays a key role in supporting the success of SMEs and the results indicates some level of government support for the entrepreneurs. Government policy and competence directly impacts the successes of the indigenous businesses. ENT PC spoke of the lack of government intervention on behalf of SME publishing companies in an industry that is highly competitive. Government mismanagement of electricity supplies daily impacts the non-farm businesses. ENT SM also spoke of the impact of currency fluctuations, water, energy, transportation and taxes on the business. These impact the cost of production especially the destruction of water bodies which is of great concern to ENT SM.

The importance of government intervention especially in the new industries is well identified by researchers. Asare et al. (2021) stress the importance of including herbal medicine under national health insurance coverage to make it available to all Ghanaians. Missodey & Arhinful (2022) stresses the need for the industrialisation of Ghana's herbal medicines from home remedies to standardised herbal medicines. Droney (2016) focusses on the need for plant medicine research. Considering that the herbal medicine industry is one of the fastest growing industries in the world (Asase, 2023), government intervention in all the mentioned areas is critical for Ghana's successful participation in the industry. Similarly in the construction industry, Arthur-Aidoo et al. (2018), identify stakeholder involvement as the most important factor influencing the growth of the industry. Asante et al. (2018) highlight the needs of SME building contractors to include anti-corruption measures, technical and technological assistance, financial assistance and favourable fiscal policy. In this highly competitive but growing industry, these are areas that government intervention can be critical for SME success.

5.3 Implications of the findings

5.3.1 Methodology Implications

Of the nine research participants only one was female. The entrepreneurial journey of the female entrepreneur followed similar themes to those of the male entrepreneurs, however, the scarcity of female participants in this research is of a concern especially in research centered on a matrilineal population. The methodological implications are that future research should emphasize a gender balanced participant group or female participants only. Such a study should produce results that account for gender bias and allows for educational policies that is effective for both the male and female young people. However, recruiting female participants for the research was problematic. Those identified were unwilling to participate in the research indicating a lack of trust in the participant researcher relationship. Future research should factor in time to build relationships with potential female participants.

5.3.2 Theoretical Implications

The research found that some secondary level western knowledge was supportive of the indigenous entrepreneur's business success. The intersection of the two knowledge systems either created equilibrium spaces of interaction or there was disequilibrium. Where there was no alignment, the impact was negative on the business and therefore care was needed to manage these intersectional spaces. The research also indicated that theoretical perspectives of the participants were critical in identifying the western knowledge systems that align with the indigenous knowledge. The findings imply that further exploration of the intersectional spaces could lead to expansion of equilibrium spaces and increase positive impact on the indigenous businesses.

The study was limited in its focus on these intersectional spaces. Future research focused on these intersectional spaces is encouraged to gain further understanding of how Akan indigenous entrepreneurial knowledge systems interact with western knowledge to achieve optimum support for indigenous businesses in the modern Ghanaian economy. It is suggested that the research uses the interpretivism approach to enlarge the beliefs, values and perspectives of the indigenous entrepreneurs in managing the intersectional spaces.

Where a conflict lies between the theoretical perspective of the researcher and the theoretical perspective of the participant, the interpretation of the results is likely to be problematic. The results indicate that there are knowledge intersections that can either lead to equilibrium spaces conducive for business or disequilibrium space that can negatively impact business success. Wrong interpretations, leading to wrong conclusion can ultimately lead to wrong business decision. These possible conflicts imply that future research should involve researchers whose theoretical perspectives can also align with those of the participants to ensure that the participants voice is accurately interpreted. To apply the researcher's theoretical perspective when it is foreign to that of the participants will most likely lead to wrong interpretations. The implications are that a researcher studying indigenous knowledge should already share the theoretical perspective of the participants. There are opportunities for future research into structures in indigenous knowledge systems, intersections between other indigenous knowledge systems in Ghana and Africa and western knowledge systems.

Of immediate importance is research into the valuation of Akan capital innovations to ascertain the financial value of these capital structures used by the Akan to support their businesses. Similarly,

as demonstrated in Figure 4.5, valuation of the reciprocal input of the participant entrepreneurs into their communities would add further credence to this research. In the longer-term further research into indigenous capital innovations of other indigenous knowledge systems could support financial institutions and other key stakeholders in creating financial products and services for indigenous entrepreneurs.

5.3.3 Practical Implications

For Educators: The research found that the primary educators of the Akan indigenous entrepreneurs were parents followed by extended family members and then community experts. Both mothers and fathers were equally identified as well as grandmothers as playing significant roles in the indigenous entrepreneurial education of the young people. The study highlights the critical importance of family and community in building human capital. The practical implications of the research are that schoolteachers in Akan communities should partner with indigenous parents and the community in the education of the young people. For example, through engagement with parents, schoolteachers can identify the indigenous entrepreneurial activities the young people and use them as case studies in the classroom. Parents can also be invited into the classroom to share their indigenous knowledge.

For Education and Employment Policy: The research identified a four phased structured approach to Akan indigenous entrepreneurship education. The four phases covered a period of approximately fifteen years between the ages of six to twenty. This research supports the assertion by Kwadwo, (2022) that under the training of expert parents, Akan young people would graduate by the age of 16-20 years as experts.

The findings have implications for government policy on education and employment. The research implies that should educational policies prioritize the integration of Akan indigenous entrepreneurial knowledge into mainstream education at primary and secondary levels, students would graduate with entrepreneurial expertise. This would have impact on reducing unemployment. High school graduate would have the entrepreneurial skills to improve their parents' businesses or create new businesses, thus contribute to the modern Ghanaian economy.

The study of intersectional spaces could also support the current challenges of integrating indigenous knowledge into the current formal educational system. The study's findings on the tremendous impact of Akan indigenous entrepreneurship education on the productive life of young people implies that integration could have a lasting effect. Educationalists have long advocated for the integration of Akan indigenous knowledge into the current educational system (Tawil, 2013; Wiafe, 2023; Dei, 2015; Dei & Jaji, 2018; Agbenyega et al., 2017). However, they have faced barriers to integration. Vijayan et al. (2022) and Siwila (2022) speak of the politics of knowledge as barriers to IK. At tertiary level education, Arthur & Arthur (2020) highlight the demands of balancing academic work with entrepreneurship while Dzisi & Odoom (2017) highlight the passive approach to teaching entrepreneurship in higher education. There is also the concern for the lack of academic libraries for IKS hence reducing accessibility to such knowledge (Afful-Arthur et al., 2022). Asogwa (2022) considers some occultic undertones of AIKS and the challenges it poses for scientific and technological advancement. Opoku & James (2020) highlight the challenges of teaching Akan indigenous environmental science at secondary school level. The implications are that the findings of intersectional spaces combined with a four phased indigenous entrepreneurial educational structure suggests a way forward for integration despite these barriers. Chapter 6 explores a possible model.

For Business Schools: The research found that Akan indigenous entrepreneurship education is a fully immersive form of education that leads to the development of significant business skills. The research also indicated the development of an entrepreneurial mindset that identifies market gaps and business opportunities, innovates to improve business functions, and creates new businesses. The findings have implications for government policy on education at all levels as well as for employment. The integration of Akan indigenous entrepreneurship education into mainstream education will graduate students that are business ready either for employment or to become entrepreneurs. There are also practical implications for business schools in research and application. Business schools should research into the entrepreneurial mindset of the indigenous entrepreneurs, understand how they identify local challenges and opportunities and partner with them to create appropriate products and services for the Ghanaian market. Such an approach will in the long term reduce the level of imported products into the Ghanaian economy and increase locally innovated and produced products and services.

For Financial and other Key Stakeholders: The research found that the risk averse Akan indigenous entrepreneurs utilized a vast array of community centered financial innovations to support their businesses. These financial innovations enabled them to build and scale their businesses without resorting to high interest bank loans. The research identified different forms of indigenous capital. The findings have significant financial implications for government, financial institutions, non-governmental organizations (NGO) and other key stakeholders working with Akan indigenous communities. There are many forms of community centered capital innovations that can be leveraged to reduce costs and therefore stretch budgets further. For example, financial institutions understanding that Akan indigenous farmers are risk averse, utilize indigenous capital

innovations and are careful about saving their financial capital can create financial products that align with Akan indigenous ways. They can increase their market share into Akan communities by creating indigenous financial products that are Akan sensitive.

5.4 Proposals to Extend the Impact of Practical Applications

The study suggests that there are many practical applications for this research. A few options are considered in this section.

Option 1: Maintain the educational system as it is now with no changes.

The formal education system continues to be funded by the government and the indigenous entrepreneurial educational system continues to be supported by the family, extended family, and the community.

Option 2: An addition to option 1.

Option 1 but with full recognition and funding from the government. Ghana will thus have two parallel systems of education, both fully funded by the government, one will be the current formal system and the other the indigenous entrepreneurship education. Each system will follow their own philosophies, teaching and learning practices. For this option, parents have a choice as to which system to enroll their children.

Option 3: An addition to option 2.

Option 3 is a combination of the two systems, it integrates indigenous entrepreneurship education fully into the current system of education with full funding from the government. Students can engage in indigenous entrepreneurship throughout their primary and secondary education years. The schools engage family, extended family, and community of students to establish this course. The course is provided with equal importance as all other courses and a requirement for

graduation. This is probably the easiest option to implement as the infrastructure is already in place. However, each school will need to forge strong relationships with their community which can only be good in the long term. This option will require careful navigation of intersectional spaces to ensure long term success. Chapter 6 explores this option.

Option 4: From Petty trading to entrepreneur.

Two of the entrepreneurs fall into this category. They took the transferable skills from petty trading to develop successful businesses. The streets of Ghana are full of petty traders who are selling all kinds of items and wasting their entrepreneurial skills. There is an opportunity to take them off the streets and train them to manage their own small businesses. One afternoon or evening per week to learn missing skills over a period of 2-3 years can transform them into fully trained entrepreneurs. The service and sales sectors are growing rapidly with the growth of the hospitality industry. Traditionally, women are the largest participants in this industry. Systematic organization of female entrepreneurs (petty traders) in preparation for a hospitality boom is good planning for the economy as this sector is set to grow. Further research will be needed to support this work.

Option 5: Government and indigenous entrepreneurs

The research also offers application options for business. Insights from the research indicate that although the government is providing some level of support to SMEs, it is minimal. The entrepreneurs consistently complained about the lack of government support for their businesses and how much more productive they could be if proper infrastructure and government services were in position to assist them. This option suggests the government partner with indigenous entrepreneurs, understand needs and ensure government policies and economic strategies are aligned.

5.6 Chapter Summary.

The research set out to investigate Akan indigenous knowledge systems as a possible pathway to employment in Ghana's modern economy. The question of whether AIEKS could drive successful businesses was tackled. The results point to the research question being answered. AIEKS contributes to business success in many ways including creating and establishing new business. The aim of the research has also been achieved. Through innovating, identifying market gaps and business opportunities, improving operation and profitability of family business and creating new businesses, the Akan indigenous entrepreneurs have all contributed to employment.

Results indicated that Akan indigenous entrepreneurs are formidable educators, utilizing their businesses to pass their indigenous knowledge to the next generation. They provide a four phased educational approach that immerses the young people into business, resulting in the development of significant business skill. Such education can begin as early as six-year-old under the careful supervision of educators who are primarily parents, extended family and community experts. By the age of sixteen to twenty years old, the young entrepreneurs are graduated with an entrepreneurial mindset that can innovate, identify market gaps and business opportunities, improve the operations and profits of existing family businesses and create new businesses. These indigenous entrepreneurs have also embraced a certain level of western knowledge systems that support their business success but show high level of protectionism for their indigenous ways. Where western knowledge conflicts with indigenous knowledge, the entrepreneurs mostly reject its use.

The research highlighted an impressive array of innovative indigenous financial strategies used to lower operational costs and support organic growth. The indigenous entrepreneurs are risk averse

and these strategies support their indigenous values. These innovative strategies are embedded in the community structures that enable capitalization. Those identified in the research included social capital, trust capital, human capital, youth capital, health capital, knowledge capital, gender capital, diversity capital, and governance capital. The indigenous entrepreneurs capitalize on the inherent value the community places on social structures, trust, people, youthfulness, health, knowledge, gender, diversity and governance to support their businesses. The research was limited by gender representation with only one female participant. More time was needed to build relationships with probable female participants and create trust in the research process. Future research will be needed to include more female participants or to undertake all female group research.

Some novel results were uncovered. The four phased Akan indigenous entrepreneurship educational system is novel to this research. Although some business skills and capital structures have been identified in other research, their identification within Akan indigenous entrepreneurship knowledge systems and the comprehensive list identified in single research is novel. Finally, the combination of the four phased approach and the knowledge intersections within the same research provided the novel opportunity to interpret the relationships between them, understand the synergies and suggest possible integration of the two knowledge systems.

These novel areas provide opportunities for future research into structures in indigenous knowledge systems, intersections between other indigenous knowledge systems in Ghana and Africa and western knowledge systems. The valuation of Akan indigenous capital innovations also offers new areas of research.

Why are the findings of this study significant? Despite modernity and lack of government funding, Akan indigeneity continues to thrive. Finally, this chapter has identified several practical applications options of the research in the areas of education and business. Option 3 will be considered in greater detail in the next chapter.

Chapter 6: Application Proposal

6.1 Introduction

The discussion of the research in chapter 5 suggests an opportunity to integrate the Akan indigenous four phased entrepreneurship education into Ghana's mainstream formal education system. The results imply that the combination of the two knowledge systems could maximise the potential of primary and secondary education, leading to graduates who are well prepared with an entrepreneurial mindset, for further education, employment or entrepreneurship. This chapter on my thesis therefore presents an outline proposal, describing how the two systems can be combined and utilised in the primary and secondary education system. Such an integrated system could contribute substantially to reducing youth unemployment thus achieving the aim of the research.

The Ghana Educational Service (GES) is facing challenges in improving the standards of education in rural basic education. Shortages of trained teachers, educational resources and infrastructure are highlighted as contributing factors to the low performance of such schools <https://ges.gov.gh/about-us/>. Under a project called the Ghana Accountability for Learning Outcomes Project (GALOP) the government has identified 10,000 under performing schools for intervention, to improve results and reduce the performance gap between rural and urban basic schools. Unfortunately, the government does not have the enormous budget that would be needed to solve this problem. Instead, the government is open to novel ideas and partners to support this challenge. Some of the GALOP basic schools exist within the Akan regions and would be appropriate centers for piloting the application of this proposal.

Certain sections of educationalists advocate for the integration of Akan indigenous knowledge systems into mainstream education. Amponsah (2023) advocates for the inclusivity of Akan philosophical thought in education. Prempeh (2022) suggests polishing the pearls of Akan indigenous wisdom for education. Amponsah (2023) indicates that Sankofa and tete wo bi kyere philosophies should be the foundation of inclusive education. Agbenyega et al. (2017) stresses the importance of Akan oral storytelling in developing children's reflective thinking in early childhood education. Dei & Jaji (2018) propose changing the face of education through creating spaces where multiple knowledge systems can co-exist and benefit from each other. The researcher believes that this integration would be of great benefit to young people, improve rural education outcomes and reduce unemployment through building the entrepreneurial mindset in all young people who are educated in such an integrated system. This would extend the value of the research.

6.2 Integration of AIEE into Formal Education System

The current thesis proposes the application of Option 3, the integrated educational system, as summarised in chapter 5, to support improvements in Ghana's primary and secondary education system. Figure 6.1 provides a diagrammatic overview of the proposed system, an integration of Akan indigenous entrepreneurship education into the primary and secondary educational system. Such an integration is not misaligned with the GES strategy for tertiary education where entrepreneurship education is already being integrated in universities (Dobson et al., 2018; Arthur & Arthur, 2020). This research results suggest that entrepreneurial education should start at primary school following the Akan indigenous entrepreneurship education which has been practiced for centuries. Although the two systems follow different theoretical perspectives, there are equilibrium knowledge intersections between them creating enhancements for both systems as indicated on

the diagram. Each system has its strengths and weaknesses. When combined the synergies enhance performance.

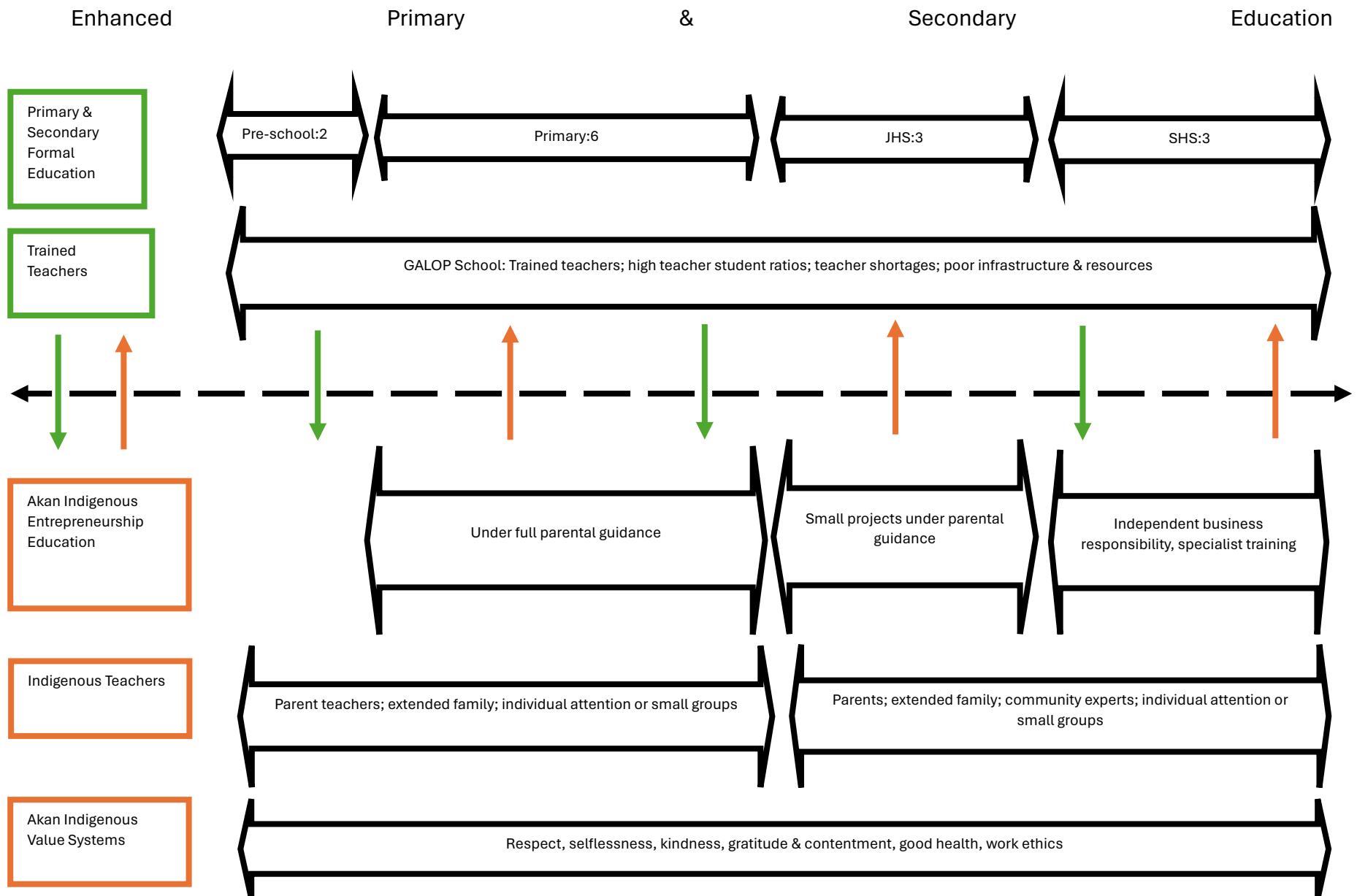


Figure 6. 1: Integrating AIEE into Formal Education

Proposed Embedded Plan

Table 6. 1: Curriculum

Categories	Pre-School (2 yrs.)	Primary (6 yrs.)	JHS (3 yrs.)	SHS (3 yrs.)
Teachers – Formal	Nursery teachers	Trained primary teachers	Trained JSS teachers	Trained SHS teachers
Teachers - Indigenous	Parents, grand parents	Parents, extended family	Parents, extended family, community members	Parents, extended family, community members
Curriculum – Formal <u>https://nacca.gov.gh/wp-content/uploads/2019/04/National-Pre-tertiary-Education-Curriculum-Framework-final.pdf</u>	Language and Literacy, Environmental Studies, Mathematics/Science and Technology, Creative Activities (Music and Dance and Art), Music Dance and Drama, Physical Development, Psychomotor Skills, (cuts across all areas)	English, Maths, Science, history, creative arts, religious and moral education, physical education, French, Ghanaian language, Computing	Mathematics, Ghanaian Language, English, Integrated Science, Social Studies, French, Information and Communication Technology (ICT), Religious and Moral Education, Music and Dance, Basic Design and Technology, Physical Education	Mathematics, English Language, Integrated Science, Social Studies, Information and Communication Technology (ICT). Physical Education OR Science, General Arts, Business Education, Agricultural Science, Home Economics, Technical and Vocational Education.
Curriculum - Indigenous	<ul style="list-style-type: none"> Indigenous values 	<ul style="list-style-type: none"> Under full instruction of family and school. Immersion into the family business or school project 	<ul style="list-style-type: none"> Experimental years with minor business responsibilities according to students' ability 	<ul style="list-style-type: none"> Exploring first business ventures or managing family business. At this age group, apprenticeships can also

		<ul style="list-style-type: none"> • Indigenous values • Indigenous values 		<ul style="list-style-type: none"> • Indigenous values • Indigenous values <p>be included where the student attends their master 1 day per week.</p>
Instructional style - Formal	Classroom based	Classroom based	Classroom based	Classroom based
Instructional style - Indigenous	Home based	Home and business based	Home and business based	Home and business based

Table 6. 2: Weekly Cycle

Weekly Cycle	Pre-School	Primary	JHS	SHS
Monday	Formal classes	Formal classes	Formal classes	Formal classes
Tuesday	Formal classes	Formal classes	Formal classes	Formal classes
Wednesday	Formal classes	Formal classes	Formal classes	Formal classes
Thursday – Practical Day	Indigenous Creative activities	Entrepreneurship day (ED), immersion in business activities	Entrepreneurship day (ED), immersion in business activities	Entrepreneurship day (ED), immersion in business activities
Friday – Practical Day	Indigenous Creative activities	<ul style="list-style-type: none"> • Reporting on ED activities and skills • Business related classes • Innovating for community challenges 	<ul style="list-style-type: none"> • Reporting on ED activities and skills • Business related classes • Innovating for community challenges 	<ul style="list-style-type: none"> • Reporting on ED activities and skills • Business related classes • Innovating for community challenges
Saturday				
Sunday				
School holidays		Holiday classes	Holiday classes	Holiday classes
School holidays		Supporting family business	Supporting family business	Supporting family business

According to my research results, Akan indigenous entrepreneurship education is firmly rooted in the community. The educators are parents, extended family and community experts. The family businesses used in training also exists within the communities. The suggested curriculum design has taken this into consideration. Trained teachers will work alongside the indigenous educators. Curriculum design also considers the weekly timetable. Since Akan indigenous entrepreneurship is immersive, this element is included in

weekly activities and school holidays. The trained teachers should ideally posses an entrepreneurial mindset, with their own side businesses or encouraged to get directly involved in entrepreneurship. This is also important in targeting their commitment to the community.

6.3 Implementation Process

To implement the proposal, there are several key stages that need to be included. A careful analysis of key stakeholders is essential to ensure the appropriate people are included. It is A community-based approach and an innovative capital structure is critical with some of the capital innovations identified in my research have been considered for the proposal. The integration process for the two knowledge systems have been considered through the strengths of each system and the benefits they bring to create equilibrium spaces. Reciprocal training of the trained teachers and indigenous educators is essential to understanding each other's theoretical perspective. Finally, government permissions for using some GALOP schools in the pilot is considered.

6.3.1 Key Stakeholders and Expected Inputs

Akan indigenous entrepreneurship education is a community-based system that is reliant on multiple teachers at different stages to achieve success. An underperforming school within a rural area in an Akan region will exist within a cultural setting that operates according to indigenous values. The following stakeholders will be required to achieve success:

- A GALOP school in rural Akan region
- Children and youth between the ages of 6 - 16 years attending the GALOP school.
- Headteacher and teachers in the GALOP school with an interest in entrepreneurship
- Parents, extended family, community members and specialist entrepreneurs in the community. These are the teachers of indigenous entrepreneurship at various levels and will work closely with the trained teachers.

- An initial project team consisting of the researcher, a community liaison officer, and an administrator to manage the project, build community relations and maintain proper records.
- Religious organisations such as churches and mosques operating within the community.
- These organisations have the trust of the people, are influential and invest heavily in education at all levels. The prosperity of the people impacts the prosperity of the church. The government supports many religious educational institutions. Community members have also contributed to the infrastructure of religious organisations and therefore such infrastructure should be available for the benefit of the community.
- Traditional leaders in the community such as chiefs, queen mothers, knowledge keepers and elders are essential for success. They are the custodians of ancestral knowledge and community land. Traditional leaders are very supportive of education often gifting land to educational institutions to establish schools. Their involvement is good for their own reputation and addresses concerns of the younger generation losing the wisdom of the ancestors. They are respected by the people.
- Government leaders in the community include assembly men and women and local education authorities. Since the project involves a GALOP school, their involvement in gaining all the necessary permissions will be essential.
- Development Partners, Private Sector and Stakeholders who can provide critical insight and collaborate on the project.

The engagement of community partners is a critical part of the education process. An analysis of the stakeholders provides an understanding on managing relationships to ensure success. Figure 6.2 is the stakeholder framework of the major stakeholders for the proposal based on the Mitchel et al. 1997 model.

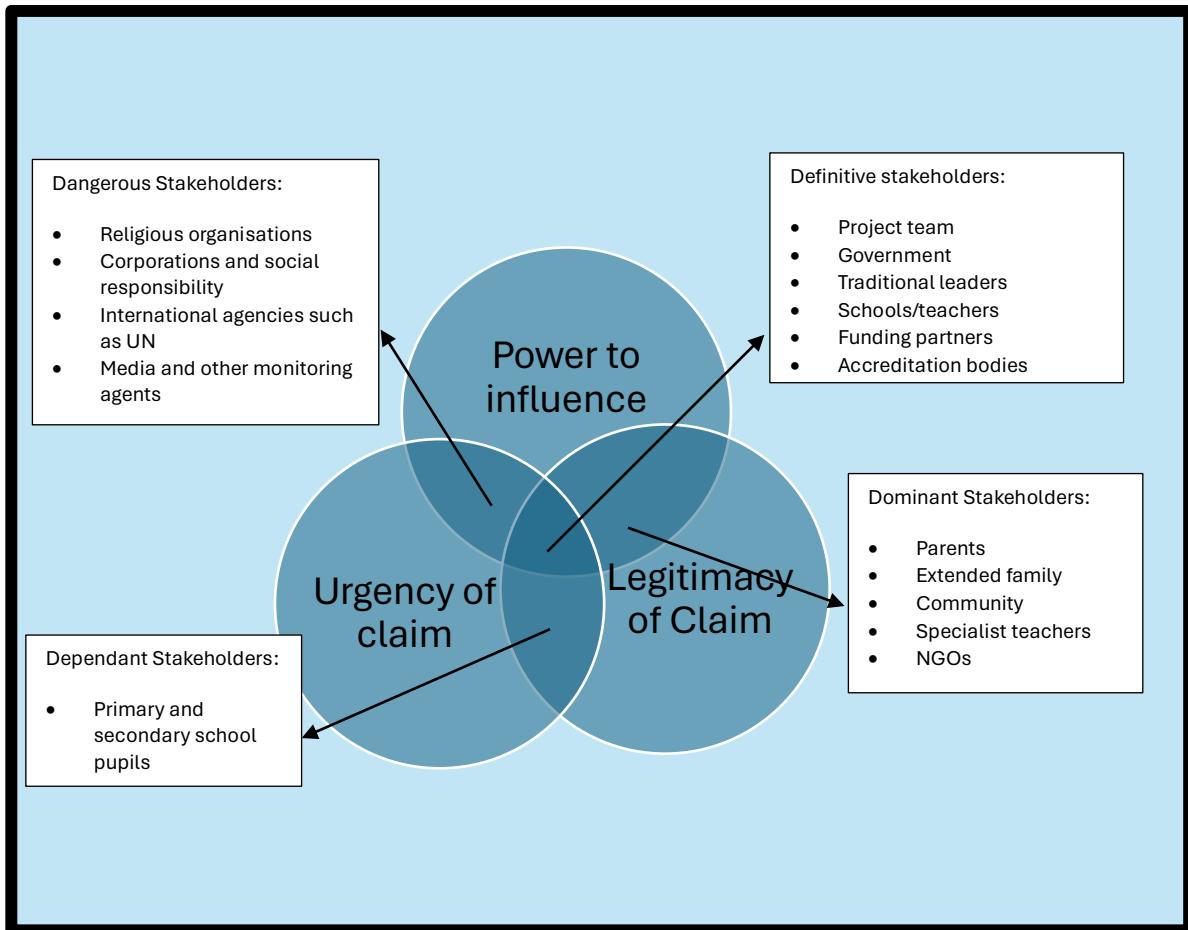


Figure 6. 2: Stakeholder Framework (Mitchell et al, 1997)

Based on the model by Mitchell et al., 1997, stakeholders are categorised according to the power they yield in the proposal, the legitimacy of their claim to the proposal and the urgency with which their demands must be met. Combining power, legitimacy and urgency will help to identify how engaging a stakeholder will be and how much attention they should receive.

Legitimacy is a measure of stakeholder rights. Power is a measure of the level of stakeholder influence over actions and outcomes. Urgency is a measure of how much immediate attention

should be given to the stakeholder. Stakeholders who have power, legitimacy and urgency are classified as “definitive stakeholders”. Undoubtedly, the government is the most powerful influencer of education, responsible for education policy in the country. The government determines the direction of education for the country and manages most of the funding that goes into education at all levels. The government, however, recognises that it cannot handle the task alone and works closely with many other stakeholders. For this proposal, other “definitive stakeholders” are the project team, traditional leaders, funding partners and accreditation agencies. Attention to these groups is essential for success. The “dangerous stakeholders” are also worth particular attention. Although religious organisations, corporations, and international agencies are collaborative partners with the government, they pose a potential danger to new entrants with a different approach to education.

6.3.2 Financial Strategies to support the project.

My research identified multiple financial tools used by the indigenous entrepreneurs. These included social community capital, trust capital, human capital, youth capital, gender capital, diversity capital, knowledge capital, health capital, governance capital, sustainability capital and of course financial capital. The multitude of tools can be used to create a reciprocal community system that will make the school a centre of entrepreneurship for the community, reducing costs, impacting the teachers, students, and community. Some examples are:

- **Physical Assets** - Savings, support from family members, the community working together to save money for key equipment for the school. Gifts of land, buildings, or any other physical assets to the schools. Supporting the living expenses of teachers coming into the community to provide a basic standard of living.

- **Labour** - Community coming together to provide free labour for school projects to reduce school costs.
- **Knowledge** - Parents, community members, traditional leaders, knowledge keepers offering their knowledge to the youth of the community as it has always been done and train them to give back to the community, eventually leading to the development of the community.

Investment into the school system by community members, creates a culture of accountability. When stakeholder capital is invested in the project, those stakeholders will require accountability from the project lead. This is a major advantage the private fee-paying schools have over the government free primary and secondary schools. Figure 6.3 is an illustration of the complex web of indigenous capital identified.

Reciprocity is built into the system. Children are taught from an early age to give back to their community. The diagram illustrates through the dense arrows where the connectivity is strong with the different capital tools. For example, youth are recipients of gender capital as women play a very important role in entrepreneurship education. However, once the young entrepreneur is generating revenue, they provide for mother, grandmothers of the family. Gender capital is directly supported by husbands and traditional governance which instructs that a wife should not be allowed to fall into debt. The wife in turn uses this capital to support the children and other vulnerable members of society. Children and youth receive a lot of knowledge from family and community. However, the youth also input into the knowledge capital through their innovations. The use of indigenous capital to support the indigenous entrepreneurship education is expected to produce a similar cycle. The primary and secondary school students will receive many assets from the community to enhance

their education but they will give back over a lifetime to the school and community, thus creating a sustainable cycle of improvement.

Akan Indigenous Capital (AIC)

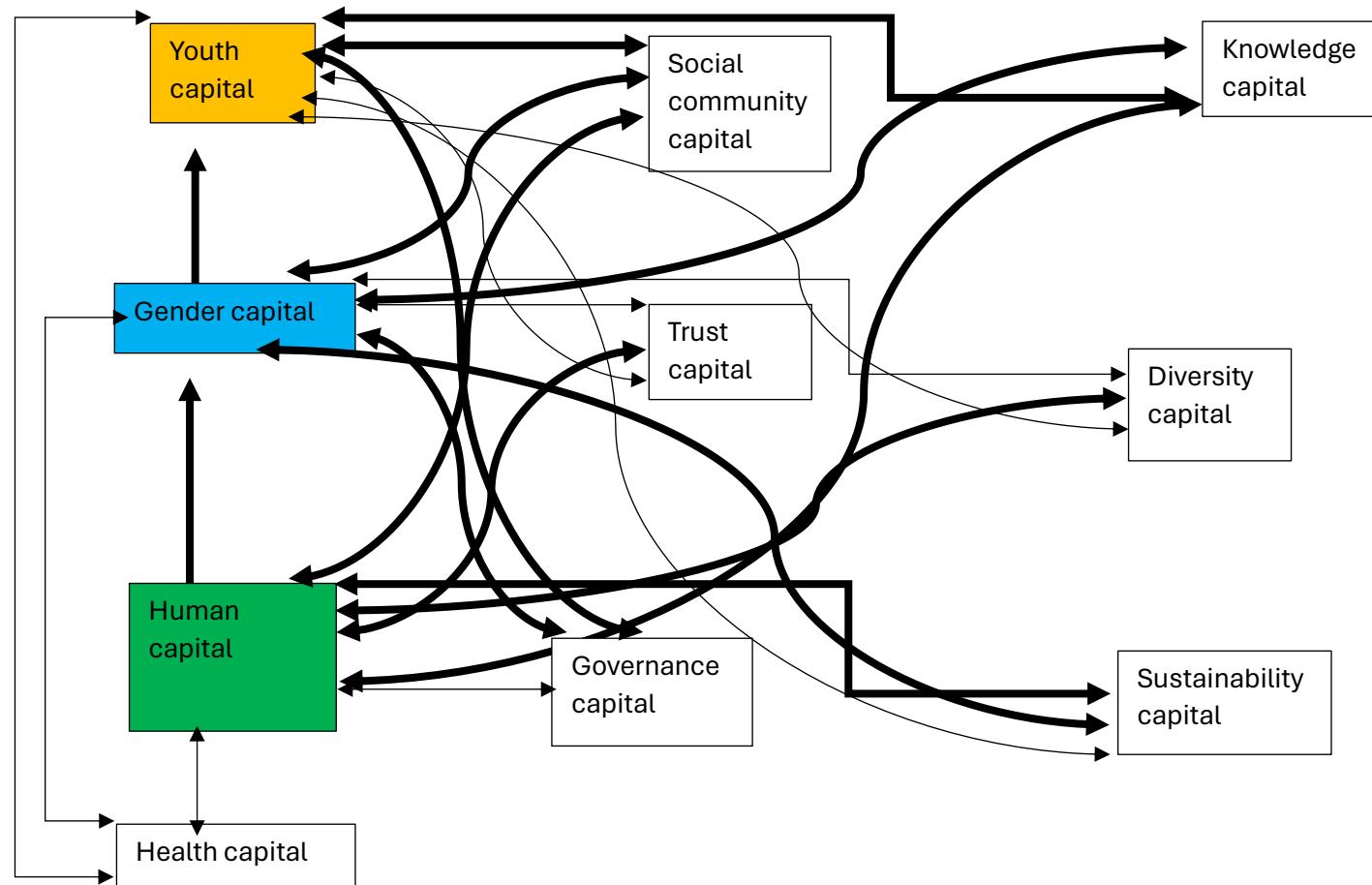


Figure 6. 3: Indigenous Capital Connections

6.3.3 Integration Considerations

Co-creation: It will be critical to bring all key stakeholders to the table to co-create the curriculum for success. The research provides the singular perspective of the researcher, however there are many stakeholders involved in this proposal and their perspectives will be important for success. There are, however, some key initial considerations to be noted.

Indigenous Teaching Tools: The implementation tools are stories, proverbs, songs, dance, music, art, games, ceremonies, adinkra, Kente, apprenticeships, role play, specialist training etc. Consultation should take place with traditional teachers on the best use of these tools. There is an opportunity for trained teachers to learn from the community and to collaborate as tools are shared between the two groups.

Division of Time: Equal importance should be given to indigenous entrepreneurship. The plan is that by the time the youth complete their secondary education, they will have the necessary business skills to start their own business. Their education should also be comprehensive enough to support university or other tertiary qualifications.

Language of instruction: Indigenous education should be provided in the local languages.

Indigenous education: Ensure the practical elements of indigenous education are maintained. One day per week should be set aside where the student attends work with parents or working with teachers on their projects at school. Additional immersion should be received during school holidays.

Indigenous Value Systems: These should be part of the curriculum at all levels.

Immediate Community Benefits of Entrepreneurship Centre

The entrepreneurship centre should quickly become a hub of activity for other youth and adults in the community. Since this is entrepreneurship education, parents will gain great support for their family businesses. The school becomes a community center not just for the education of children but the education of parents and the building of businesses. Community members become invested in the infrastructure of the school and the school becomes invested in the economic development of the community. Entrepreneurship clubs can be set up for students and community members. The proposal also creates time for teachers to become entrepreneurs. Their businesses can be used as teaching tools for students whose parents are not entrepreneurs. This will also incentivize teachers to commit to the community for the longer term.

6.3.4 Government commitment to entrepreneurship.

The government has a mandate to reduce youth unemployment. Entrepreneurship is one of the government's strategies. The proposal works with government to incentivise all high school graduates who complete their entrepreneurship education and start a business, with startup capital. To gain access to that money the student must complete the training to a level where they are competent to run a business, in other words they must graduate both from their entrepreneurial training and from their formal education. The funds can only be used to set up a business.

6.3.5 Expected Impact

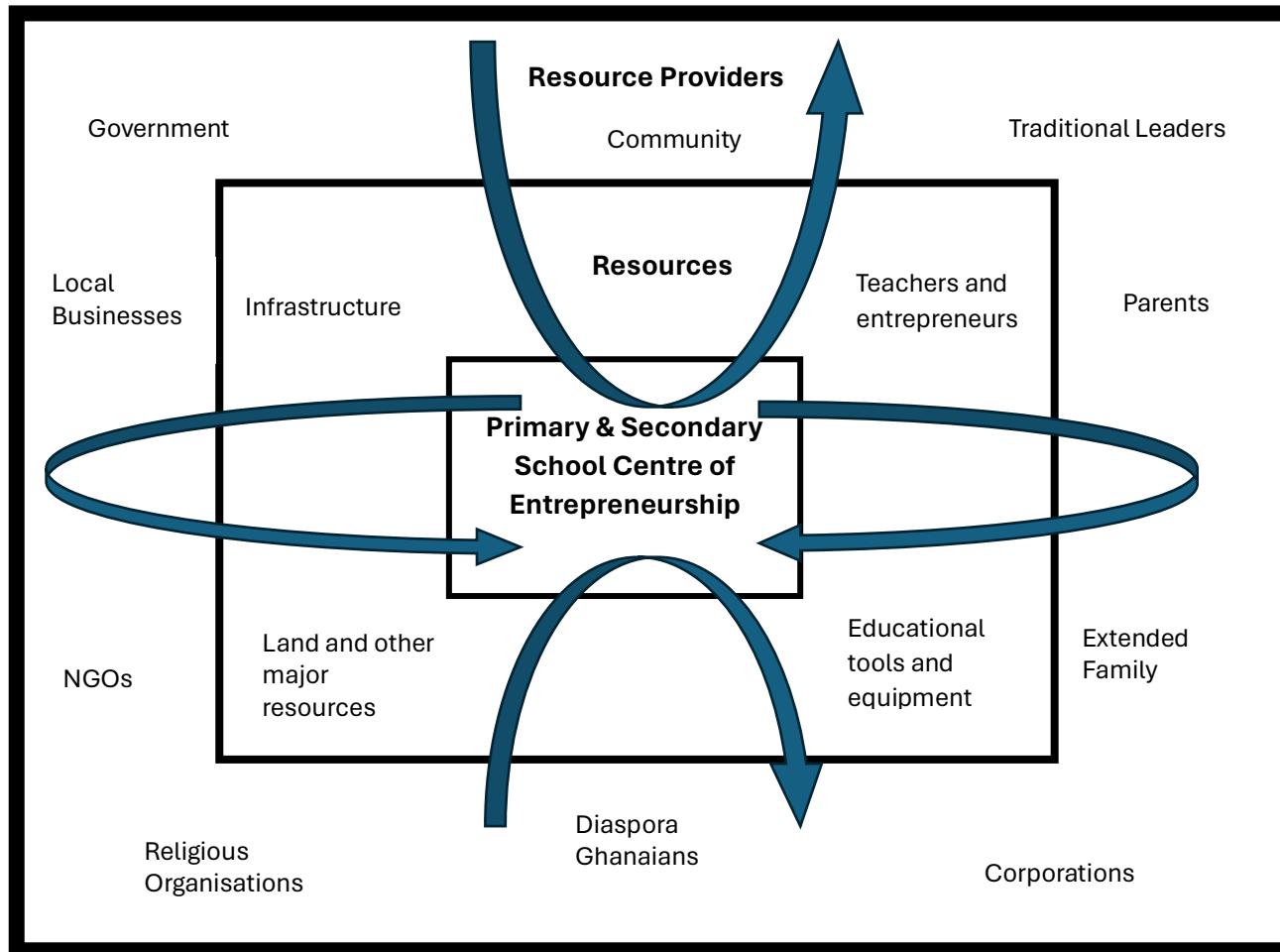


Figure 6. 4: Community Reciprocal Cycle (CRC)

The proposal is built around the GALOP primary and secondary School as a Centre of Entrepreneurship for the community. It recognises the multiple stakeholders that will be needed and the inputs that they will bring into the proposal. Figure 6.4 provides an overview of the proposal inputs and the expected impact on the community. For example, the government may provide infrastructure and trained teachers; Traditional leaders may provide land; Local businesses, family and community members may provide time and knowledge to teach the students etc. These resources will equip the Primary and Secondary School Centre of Entrepreneurship which will train students and community members. The expected impact back into the community are new businesses formed and existing businesses improved, unemployment reduced, knowledge transferred to the next generation, grades improved, local economy improved and poverty alleviated. Resources from the community into the school is expected to return to the community with dividends.

6.3.6 Measurement of Impact

The impact measures will depend on the resource providers and should therefore be established by the community at the start of the project. New measures will come into play as the project expands. There is a need for continuous monitoring, evaluation, and adjustment of the project. General measures that can be applied are as follows:

- Community members involved as collaborative partners.
- Contributions from Ghanaians in diaspora originating from the community.
- Primary, JHS and SHS graduation results.
- Number of initiatives created by students in their family businesses.
- New businesses that have been started by the students while in secondary school.
- New businesses create after graduation from secondary school.

- Family businesses managed by students after graduation from secondary school.
- Business skills acquired by the students at the different phases of their entrepreneurial education.
- Employment and unemployment numbers for secondary school graduates
- The number of students going on to tertiary education and the courses they are taking. Their success rates at tertiary institutions can also be measured.
- Gender equity measures including number of girls graduated from the program and subsequently managing their own business or working for another company.
- Feedback from parents, teachers, students, community members and other key stakeholders.
- Inputs back into the community

6.4 Chapter Summary

The argument of the educationalist is also valid for the economist; that a child's fund of knowledge is critical for success, the economy, leadership, lineage, and society. Indigenous Akan education is entrepreneurship education. Recentering entrepreneurship education in the current system of education will reestablish Akan communities for the modern economy.

This chapter has considered the application of my research to the education sector, specifically to primary and secondary education. The GALOP schools identified by the GES has been the focus of application for this proposal. The integration of the formal education system with the indigenous entrepreneurship education has been considered together with the advantages of integration, each

system supporting the weaknesses of the other. A proposed model for embedding the two systems together has been presented. Extensive consultation will be needed with all key stakeholders. The various resources needed to progress the project has been considered in detail in this proposal, including stakeholders and indigenous capital options. Finally, the expected impact of the proposal has been considered together with appropriate success measures. The research supports the inclusion of Akan indigenous entrepreneurship education at every level of the formal educational system. The knowledge of Akan ancestors has strategies to combat the current unemployment crisis in Ghana. Akan indigenous entrepreneurship education offers unique competitive advantages to Akan entrepreneurs that enable them to thrive in the modern economy. Including such education in the mainstream educational system can only bring advantages to local, regional and the national Ghanaian economy.

Chapter 7: Conclusions

7.1 Introduction

This final chapter of the research provides a reflective perspective of the key findings of the research in relation to the research aim and question. The novel research contributions, in terms of theory, methodology and practice are covered as well as the limitations of the research. Finally based on the outcomes of the research, some possible future areas of research are suggested.

7.2 Reflections

This study began with the idea that western knowledge systems were perhaps not having the impact on the Ghanaian economy as intended, especially in the light of the high youth unemployment rates being faced by country (Ghana, 2021). With the informal economy, which is largely indigenous, thriving, was there a possibility that indigenous knowledge could contribute to youth employment. Focusing on the Akan ethnic group, the question was asked whether Akan indigenous entrepreneurship knowledge systems could be used as a driver for successful businesses within the modern Ghanaian economy, with the aim of impacting youth unemployment through Akan indigenous knowledge.

Overall, the study answered the research question by identifying important areas of a business operating in Ghana's modern economy that are positively impacted by Akan indigenous knowledge systems. These included a community centered, structured entrepreneurship educational system, entrepreneurial mindset, innovative financial management strategies, resilient entrepreneurs and

businesses, diversification and sustainability of products and services. language skills, and the ability to navigate between western and indigenous knowledge systems.

However, there are four novel areas that deserve to be highlighted here in the conclusion. The first is the identification of a well structured four phased immersive Akan indigenous entrepreneurship educational system that graduates students at age sixteen to twenty years with an innovative entrepreneurial mindset. These graduates hold significant business skills that bring improvements to family businesses, identify market gaps and create new businesses, products and services. This is important as it identifies an indigenous educational system with order and structure and opens a pathway for integration with the existing educational system.

The second novel result is the identification of different indigenous financial strategies that reduce operational costs and promote organic growth in line with Akan indigenous ways. Although some of these strategies have been identified in previous research, especially social capital and human capital (GHANA, 2019), the extent to which the Akan capitalise on their community assets to finance their businesses has been highlighted in this research. Trust, gender, youth, health, diversity, governance, knowledge and sustainability are all areas where the indigenous Akan has capitalised for their businesses. This innovative approach to finance is important for the research aim as it lowers the financial barriers of entry into entrepreneurship, allowing as many young people as possible the opportunity to become future entrepreneurs irrespective of their financial situation. A follow up quantitative research to value these various forms of capital will further support the aim of this research.

The third identification that is novel were the importance of the knowledge intersections and their impact on determining success or failure of the businesses within the modern economy. The entrepreneurs identified some western knowledge that was supportive of the success of their businesses within the modern economy. Such western knowledge could exist with Akan indigenous knowledge in equilibrium spaces to positively impact the success of the business. However, even this knowledge had to be carefully managed for success. Equally, the entrepreneurs identified some western knowledge that created disequilibrium with Akan indigenous knowledge. Intersections with other knowledge systems are critically important in a modern economy and entrepreneurs need the ability to connect with other theoretical perspectives to survive in a modern economy. Again, this finding warrants future research into intersectional spaces and their impact on business success. This will contribute to the work of Knaus et al., (2022) on the decolonisation of the academy and the inclusion of African thought, languages and structures; Dei & Jaji (2018) on changing the current educations spaces to spaces where multiple knowledge systems can co-exist and benefit each other and the research of Ezeanya-Esiobu (2019) on western philosophy and traditional Africa philosophy coming together to learn from each other. Due to the enormous cultural diversity within Ghana and all African countries, understanding the entrepreneur's ability to operate in such multiple conscious spaces (Heto & Mino, 2023) will be critical for business success and further research is required.

Finally, the research indicates that Akan indigenous knowledge systems embody a holistic approach to business, covering practically every aspect of business operations. This raises the question as to whether other indigenous knowledge systems would also embody a robust approach to business knowledge. It suggests that this research should be repeated in the context of other indigenous knowledge systems.

7.3 Research Contributions

To date four research outputs from this study has contributed to international conferences in Europe, Africa and North America. The first was Sustainable Lessons from Akan Indigenous Entrepreneurship. Presented in Rome at *the 11th International Conference on Sustainable Development (ICSD 2023)*. This paper focussed on two of the novel findings of the study, the Akan indigenous entrepreneurship education and the innovative financial strategies. The second was Akan Indigenous Farming and Sustainable Development Goals. Presented at *the 3rd International Conference on Information and Knowledge Management (IKM 2023)* in Nairobi, Kenya. This paper focussed on the farming entrepreneurs and their sustainable methods and how that contributes to meeting the United Nations sustainable development goals of life on the land. The third is Akan Indigenous Entrepreneurship: A Model of Sustainability and Resilience, published in the *Australian Academy of Business Research*, Vol 2 (1), 2024. This paper focused on the theme of resilience and sustainability that was observed in the research. Further research is needed to determine whether there is a direct link between the immersive indigenous education and the resilience of the entrepreneurs. Finally, the paper on Impact of Akan Cosmology on Sociopolitical Organization for *the 23rd Annual Africa Conference (AAC 2024)*. *University of Texas at Austin*, USA, highlighted the link between Akan cosmology and leadership. This was based on a section of the literature review and demonstrated how Akan cosmological thought pervades its society.

The research problem was that despite the heavy investment in western education (Ackah et al., 2018; Dzisi and Odoom, 2017) youth unemployment continues to be a challenge for the government. At the same time the informal economic sector which is largely indigenous is thriving and absorbing the majority of young people (Ghana, 2018; Ghana, 2024). The research sought to fill

this gap for the government by investigating these indigenous entrepreneurs to identify why they are thriving in the modern economy and whether such indigenous knowledge systems could offer solutions to creating more jobs for the young people. This research has contributed to addressing the gap. It has identified some important reasons for the success of the informal sector in creating employment opportunities. Akan indigenous knowledge education is accessible with low barriers of entry (Olaniyan et al., 2023). Indeed, the entrepreneurs when faced with the barriers of entry into formal education, turned to their indigenous education to establish businesses, some of which are now operating in the formal economy. Akan indigenous entrepreneurship education offers innovative ideas that are contextually relevant, business skills for the modern business market and innovative capital strategies that establishes businesses. It produces an entrepreneurial mindset that identifies opportunities, galvanizes community resources to improve or create businesses that input value into the community (Akinyoade et al., 2017).

7.3.1 Theoretical Contributions

The study has contributed to theory in a number of ways. The research found the importance of knowledge intersections to the success or failure of the businesses in the modern economy. The intersection of western and Akan indigenous knowledge systems either created equilibrium spaces of interaction or there was disequilibrium. Equilibrium spaces supported the success of the business whereas disequilibrium was problematic to the business. Even when the two knowledge systems aligned, the intersection had to be carefully managed to create equilibrium.

The research found that Akan indigenous entrepreneurship education is structured into a four phased approach. Phase one, under the full supervision of parents and extended family, is the learning phase. Phase two, under the supervision of parents, extended family and community is the

experimental phase when the youth take on partial responsibilities for the business. Phase three is the creative phase, where there is specialist training by community experts and the youth takes on full responsibility for the family business or starting their own business. Phase four is business expansion. The education spans the ages of six years to graduation between sixteen to twenty years on average and progressing according to the ability of the student. By the age of thirty, the entrepreneurs were in phase four.

Another theoretical contribution was the identification of multiple financial strategies used by the entrepreneurs to fund their business. These capital strategies are community centered ensuring that financial capital is not a barrier to entrepreneurship within a community setting. Akan indigenous finance can therefore create entrepreneurship opportunities in many vulnerable and disadvantaged communities, where financial capital is limited.

The research has also contributed to the increasing body of knowledge on the importance of indigenous knowledge on solving many major problems in the world today; Vijayan et al., (2022) on IKS and food systems; Ebhuoma & Leonard (2022) on IKS and climate change; Ogunyemi et al. (2022) on business management and ethics; Nakashima & Roue (2002) on IKS and healthcare, education, conservation and of course farming. Akan indigenous knowledge systems can contribute to solving the unemployment problem by lowering the barriers of entry and educating future entrepreneurs.

7.3.2 Methodology Contributions

Without intending to do so the research has contributed to a gender bias in favour of Akan indigenous men. The research largely portrays the theoretical perspectives of Akan indigenous

men. Of the nine research participants only one was female. The research therefore opens the door for an all-female participant research study.

The three-step research design focused on relationship and trust building, participant criteria and the interpretation. This method can be replicated for research in any ethnic group or vulnerable community. The first step is including time in the research design for networking, relationship, and trust building. For indigenous communities, knowledge is community centered (Sen, 2005; Joranson, 2008; Gupta, 2010), therefore this step is critical and will impact the quality of the data collected. The second step of the research is a focus on the identity of the participants and linking them to the key identifiers of their ethnic group. This is also critical in ensuring the research is based on genuine indigenous people who hold the indigenous knowledge of their community. The third step focused on the interpretation of the data. Interpreting the data from the theoretical perspective of the participants supports accuracy and suggests that, if possible, the researcher should be a native of the ethnic group under study. For centuries, western researchers have had the privilege of interpreting research through western theoretical perspectives; indigenous researchers should likewise have the privilege of interpreting research on indigenous communities through indigenous theoretical perspectives (Boven & Morobashi, 2003).

7.4 Practical Applications

The research has many possible practical applications:

1. Application for Educators: The research found the critical role played by parent, extended family and community experts in the education of the Akan indigenous entrepreneurs. This finding can be applied at primary and secondary level education where family and teachers can partner to improve performance in basic education.

2. Application for Education and Employment Policy: The four phased Akan indigenous entrepreneurship educational structure, can be applied to mainstream education at the primary and secondary level to ensure that all students graduate from secondary education prepared for further education, employment or entrepreneurship. Currently secondary level students are neither prepared for employment or entrepreneurship. Chapter 6 outlines a proposal for such an application.
3. Application for Business Schools: The research also indicated the development of an entrepreneurial mindset that identifies market gaps and business opportunities, innovates to improve business functions, and creates new businesses. There is an opportunity for Business schools to research into the entrepreneurial mindset of the indigenous entrepreneurs, understand how they identify local challenges and opportunities and partner with them to create appropriate products and services for the Ghanaian market. Such an approach will in the long term reduce the level of imported products into the Ghanaian economy and increase locally innovated and produced products and services. Business schools should specialise in the translation of such knowledge into products and services for the national and international markets.
4. Application for financial services sector. The research found that the risk averse Akan indigenous entrepreneurs utilized a vast array of community centered financial innovations to support their businesses. These financial innovations enabled them to build and scale their businesses without resorting to high interest bank loans. Financial institutions can utilize this research to create financial products and services that are aligned to Akan ways of doing business and increase their market share. The findings also find application in the

financial policies of non-governmental organizations (NGO) and other key stakeholders working with Akan indigenous communities. These findings could lead to new strategies that does not focus on finance as a barrier to development. Finally, the research is useful to business professionals who are employed in Akan indigenous businesses and organisations supporting SMEs looking for fresh insights and more effective ways of working with such businesses.

7.5 Research Opportunities

Two important opportunities presented itself during the research:

Each interview lasted for an average of 89 minutes This length of time was critically important in understanding context and identifying themes. In oral traditions, storytelling in an important mode. It is amid these stories that information is provided, but more than facts, stories have the power to transform the listener into the story and thus aid better understanding. For section B of the interview, without exception, all the entrepreneurs launched into story mode to share their entrepreneurial journey, covering their opportunities and challenges, their families and communities, their successes and failures and their plans for the future of their businesses. This section was designed to be semi-structured with the researcher only providing direction in terms of topics to be covered. The rest was left to the entrepreneur to provide as much detail as they felt comfortable with. The researcher is grateful with the degree of trust given by the entrepreneurs in the amount of depth offered in the stories. Personal information, feelings and even trade secrets were shared which the researcher has opted not to include in the results to protect these businesses and identities. The researcher here asserts that the time spent building relationships with these entrepreneurs was well worth the effort. The result has been the identification of some important themes of indigenous entrepreneurship. This process also highlights the critical

importance of adjusting methods or creating methods to be culturally and contextually relevant. Simply understanding the communication philosophies of the Akan, the value of respect and its importance in Akan culture and extending the time for each interview ensured questions were answered fully.

The second opportunity was on the third visit to Ghana. In a bid to delve deeper into Akan history, the researcher made a visit to Manhyia Palace museum. An opportunity to meet Prof. Osei Bonsu Safo-Kantanka, a palace historian became available. As a result of this meeting further opportunity was provided to meet with other palace historians. Unstructured interviews were conducted with Osei Bonsu Safo-Kantanka, Kojo Arthur at Manhyia Palace and Osei Kwadwo at Agona. Prof. Safo-Kantanka also provided an invitation to attend a cultural gala at Manhyia Palace. The event, hosted by the *Asantehene* (King) was an immersion into Akan culture. These opportunities provided significant history and cultural context for the research and have been invaluable in supporting the interpretation of the research results.

7.6 Research Limitations

The research presented several challenges:

The selection of the participants was the initial challenge. The researcher although Akan, lives outside of Ghana and had to travel to Ghana for the data collection. Apart from cost involved, time was also a major factor. The researcher had estimated a period of three months in Ghana to complete the data collection, however she had not anticipated participant recruitment challenges. The community element of knowledge became apparent; entrepreneurs are not going to share their business secrets with a stranger. To solve this problem, the researcher worked through family and friends to find participants who meet the research criteria. This was time consuming and took up

most of the three months allotted for the data collection. This necessitated follow up trips to complete the data collection.

The research criteria for the selection of the participants were threefold. Firstly, the participant had to be an indigenous Akan and secondly, their formal educational level had to be no higher than secondary school level at the time of starting their business. Thirdly, the participants had to be employers, employing at least one person in their business. Of the participants who qualified, eleven agreed to participate in the research. Two participants were later excluded due to time availability and over qualification. Recruitment of female participants was a major challenge. Many attempts were made to recruit women but, in the end, only one female entrepreneur agreed to participate in the research. This indicated a lack of trust in the participant researcher relationship. Future research should factor in time to build relationships with potential female participants. The scarcity of female participants in this research is of a concern especially in research centered on a matrilineal population. The methodological implications are that future research should emphasize a gender balanced participant group or female participants only. Such a study should produce results that account for gender bias and allows for educational policies that is effective for both male and female young people.

Location of the participants was a challenge. Participants were widely scattered within Ghana and required long distance travel to do the face-to-face interviews. Location of the researcher was also a major challenge and impacted the cost of the project, accessibility to the participants, directly affecting the duration of the research. Although saturation point was reached for the sample size, had the researcher been in Ghana, a larger sample size could have been obtained.

Relationship building. To ensure the collection of quality data, time was needed to build relationships with the entrepreneurs which the researcher had not anticipated. In Akan, relationships are critical because it is through these relationships that trust is built. This highlights the fact that telephone interviews would not have yielded results nor would getting someone to collect the data. The relationship building with the entrepreneurs has been a critical part of this research and has facilitated multiple follow up trips to monitor business progress. The data eventually took nine months to collect, three times the time allotted.

Research cost. Due to the many adjustments to the project plan, project costs increased significantly. This was a major challenge as the researcher was self-funded. Overall, these challenges highlight the importance of the researcher's understanding of the indigenous community under research. It has highlighted the importance of applying indigenous theoretical perspectives from the very start of the research. Some of these challenges could have been avoided had proper theoretical perspectives been applied to the project plan.

7.7 Future Research

The following are some suggestions for future research:

1. Due to the challenges encountered in recruiting female participants, a replication of the research for females only would provide useful insights and address the gender bias. For such research, extensive time would be required to build relationships of trust. *Research title: The Past has Something to Teach Us: Lessons from Akan Female Indigenous Entrepreneurs in the Modern Ghanaian Economy.*

2. The duplication of the research across other ethnic groups in Ghana and across Africa. The results of the research across multiple ethnicities should lead to the identification of common themes across boundaries and the creation of a generic model for vulnerable populations with limited financial resources. *Example Research Title: The Past has Something to Teach Us: Lessons from Ga Indigenous Entrepreneurship in the Modern Ghanaian Economy.*
3. Further research on the Akan indigenous finance: Research into the valuation of Akan indigenous capital innovations to ascertain the financial value of these capital structures used by the Akan to support their businesses. *Possible Research Title: Valuation of Akan indigenous capital innovations.* Having identified multiple capital innovations in the current research and developed trust relationships a follow up with this quantitative research would be appropriate. As demonstrated in Figure 4.5, valuation of the reciprocal input of the participant entrepreneurs into their communities would also form part of the research and add further credence to the current research.
4. The finding of a structured Akan indigenous entrepreneurship education system is important for indigenous knowledge theory. Indigenous knowledge is generally classified as unstructured and informal and therefore this find warrants further research. Firstly, more detailed research focussed on the various phases of Akan indigenous entrepreneurship education. Although the literature indicated that the Akan had a structured educational system, the researcher did not identify any specific research completed on such educational systems. Secondly to investigate if such systems exist within other ethnic

groups. *Possible Research Title: The Question of Structure: Investigating Akan Indigenous Educational Systems*

5. The study was limited in its focus on the intersectional spaces. Due to their importance in business success in the modern economy, further research is warranted. *Possible Research Title: Equilibrium space formations: Investigating the intersections between western knowledge systems and Akan indigenous entrepreneurship knowledge systems.*

7.8 Chapter Conclusion

This final chapter of the research has provided a reflective summary of the research process. Key findings of the research answering the research aim and question are summarised. It has covered the reason and motivation for the research and the final conclusions of the research. Key contributions made by the research to theory, and methodology have also been highlighted considering the research problem and identified gaps. Possible practical applications of the findings are also given. The opportunities and limitations encountered during the research process have been discussed. Finally, some suggestions for future research have been provided.

The world exists in a global economy that is mainly driven by knowledge. Indigenous communities have largely been excluded from this economy but increasingly researchers are providing evidence that indigenous knowledge systems have valuable contributions for the world. This research contributes to that growing body of literature. In this case, the contribution that an indigenous entrepreneurship education system can make towards employment. The example of the Akan indigenous farmer whose skill and quality products have become world renown, can be recreated for the emerging industries covered in this research, namely soap manufacturing, herbal medicine,

publishing, construction and fashion design. These industries offer tremendous opportunities for economic growth and the Akan have the indigenous education system to propel it!

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Appendices

Detailed Interview Questions

Permissions:

1. Name

.....

2. Do you agree to this interview?

Yes No Why?

3. Do you agree to the recording of this interview? (Explain that the interview is recorded for transcription purposes)

Yes No Why?

Family background

4. Age

30-40 41-50 51-60 61-70 71+

5. Marital status

Married Single Divorced

6. Children

0-4 5-10 11-15 16-20

7. Age of Children (years)

0-10 11-20 21-30 31-40

8. Have you formerly educated your children?

Yes No Other If No why?

9. To what level?

Primary JSS/Middle School SHS/Secondary College
225

University

Professional

Masters

PhD

Comments

10. Apart from your immediate family (spouse & children), who else do you care for?

Parents

Brother & Sisters

Nieces & Nephews

Other extended family

Friends

Workers

Community members

Ethnicity

11. Which ethnic group do you belong to? If mixed please identify all.

12. Where is your hometown?

13. Is that your mother's hometown?

14. Are you patrilineal (father's line) or matrilineal (mother's line)

Languages spoken fluently

15. How many languages do you speak fluently?

1

2

3

4

5

6

16. Name them

17. Can you read in any of these languages? Name them

18. Can you write in any of these languages? Name them

Ghanaian Ethnic, Western Ethnic and professional education

19. Did you attend school (WEAKS)?

Yes

No

20. How far did you go in your school education (WEAKS)?

Primary

JSS/Middle School

SHS/Secondary

College

University

Professional

Masters

PhD

21. Do you speak English? (GSS standard)

- None
 - Very little
 - Enough to communicate
 - Fluently

22. Do you write English? (GSS standard)

- None
 - Very little
 - Enough to communicate
 - Fluently

23. Do you read in English? (GSS standard)

- None
 - Very little

- Enough to communicate
- Fluently

24. Do you write in Twi?

- None
- Very little
- Enough to communicate
- Fluently

25. Do you read in Twi?

- None
- Very little
- Enough to communicate
- Fluently

26. Do you speak Twi?

- None
- Very little
- Enough to communicate
- Fluently

27. Can you do basic mathematics?

Addition

Subtraction

Division

Multiplication

28. Where did you learn mathematics?

29. Do you use these mathematical skills in your business?

Yes

No

Religious beliefs

30. Which religion do you belong to?

Gender

31. Male female

Attitude to Risk (Finance)

32. How did you get money to start your business?

Family Friends Bank Savings Other

33. Do you have a loan or lean on the business?

Yes No

34. Have you ever used a loan to support the business?

Yes No

35. Do you use credit for purchases?

Yes No

36. How would you rate your attitude to risk?

Low Medium High

37. What is your reason for your approach to risk?

Story telling Questions

1. Tell me about your childhood, who raised you? What did they do for a living? What business skills did you learn from them?
2. Tell me about how you started your business. At what point did you introduce professionals into the company? What happened? How did you manage the mergence of the traditional and professional knowledge systems?
3. What are you doing to make sure the traditional knowledge you used to create the business is not destroyed but continues in the company?
4. What is the way forward for the company?

