

UNIVERSITY OF EDUCATION, WINNEBA

**COMPARATIVE STUDY OF GLASS BEADS PRODUCED AMONG THE
ASANTE AND KROBO OF GHANA.**



2020

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ASANTE AND KROBO OF GHANA.**



**A Dissertation in the Department of Music Education,
School of Creative Arts, submitted to the
School of Graduate Studies in partial fulfilment
of the requirement for the award of
Master of Philosophy
(Arts and Culture)
in the University of Education, Winneba**

DECEMBER, 2020



DECLARATION

Student's Declaration

I, Theresa Addai, declare that this thesis “Comparative study of glass beads produced among the Asante and Krobo of Ghana” with the exception of quotation and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature:

Date:

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Thesis/Dissertation/Project as laid down by the University of Education, Winneba.

Name of Supervisor: Ebenezer Acquah, PhD

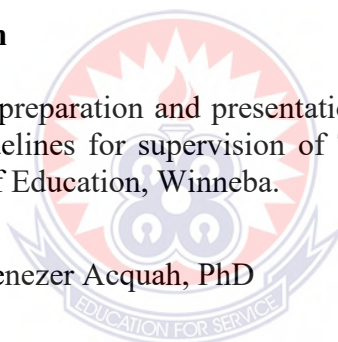
Signature:

Date:

Name of Supervisor: Osuanyi Quaicoo Essel, PhD

Signature:

Date:



DEDICATION

I dedicate this study to my mother, Abena Osaah, who has been my source of inspiration throughout my life and education.



ACKNOWLEDGEMENTS

I sincerely thank the Almighty God through whose guidance and protection I have been able to go through my education up to this level.

It would be difficult to write a study of this nature without incurring a lot of indebtedness to those who helped in diverse ways to make the research possible. I wish to express my sincere and immeasurable thanks to my supervisors, Ebenezer Acquah (PhD) and Osuanyi Quaicoo Essel (PhD) for their constructive suggestions and further the tolerance and attentiveness in supervising the study to its successful completion.

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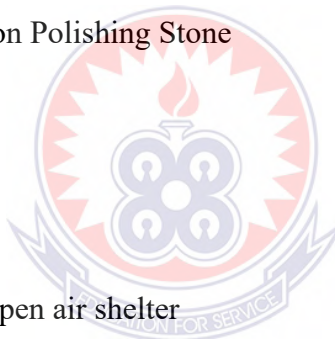
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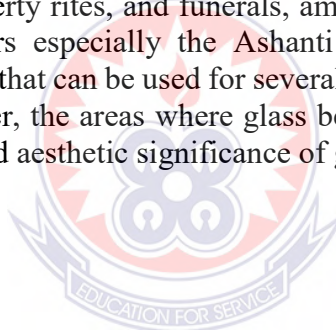


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ABSTRACT

There has been increasing predictability of the factors that influence the choice and perception of glass beads. This research tends to compare and analyse the similarities and differences in the glass beads produced among the Ashanti and Krobo of Ghana. The research adopted qualitative research approach using a case study research design. The study areas were Atwima Akropong and Kumasi in the Ashanti Region and Somanya and in the Eastern Region. Data needed for the study was gathered from traditional glass bead producers, bead users, youth and glass bead traders. Purposive and convenient sampling techniques were employed and the sample size was twenty five. Both structured and semi-structured interviews as well as participant observation were the data collection tools used for the study. The results were analysed thematically, interpreted and presented in simple descriptive statistics. The research revealed that customers of traditional glass beads preferred Krobo beads to Ashanti glass beads. The demand for glass beads produced by the Krobo motivates glass bead producers to produce in larger quantities. The study reveals that the preference for old beads is powered by the perception that they are authentic and more durable than recent versions of glass beads. The factors that inform the choice of glass beads are its appearance, attractiveness, beauty and proper finishing styles. The study also revealed that glass beads produced in the Ashanti region were currently used for funerary articles whilst glass beads produced by the Krobo were designed for several occasions such as birthday parties, engagement, puberty rites, and funerals, among others. The study recommends that glass bead producers especially the Ashanti are encouraged to produce new techniques of glass beads that can be used for several occasions and to attract customers all over the world. Further, the areas where glass beads are being produced should be educated on economic and aesthetic significance of glass beads in Ghana.





CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Jewellery production is an ancient art and can be attributed way back to the period of building homes in caves (Dierks, 1994). Personal ornament such as necklaces, brooches, rings and bracelets made from jewels, precious metals and other substances can be termed 'Jewellery' (Holland, 1999). Beads are one of the commonest jewellery used by most people. Beads have been in existence for ages and the use of beads has been consistent throughout the years and has become popular in recent times.

Glass bead making technology is among the oldest human arts (Dubin, 1987). Since the inception of civilization of the Egyptians to the societies today, there are grounds to suggest the usage of beads all over the world (Avotri, 2009). One of the highly esteemed skills across the world of art from ancient times is production of beads (Coles & Budwig, 1999). Most cultural practices in Africa have history in crafting and adornment with beads. Cultural practices are very specific to the people concerned and the celebration of puberty rites is no exception with the initiates decorated with beautiful and colourful beads which depict the appealing element of the traditional ceremony.

Traditional glass bead making as a skill has been with our indigenous communities for generations as skills are handed down from one generation to another through the informal way of training. Wood, bone and shell were initially used as materials for the production of beads but the innovation of glass later took priority and eclipsed the former (Dubin, 1987).

In Ghana and Africa at large, beads are usually a fraction of collection or assortment of materials such as twigs, seeds, shells, metals, bones, ceramic wares and glass used as a decoration around the neck or as a physical object of jewellery such that the beautification of the objects are not obvious (Avotri, 2009; Kankam-Dwumfour, 2011).

In Ghana, people who frequently use beads are the Krobo and they use it for many ceremonies such as outdooing, marriages, puberty rites and funeral rites (Afum, 2009). The Krobo of Ghana, wore and continue to wear glass beads from birth to death and are buried together with their owners. The beauty (attractiveness) of glass beads increases with usage and time (Adu-Agyem et al; 2012).

Ashanti is noted for its cultural heritage throughout the world. However, little is known about their glass bead making industry. This reaffirms Anquandah's (2003) assertion that the Ashanti glass bead culture is not well known and has not been much publicized like the kente and other art works. Traditional arts such as Kente cloth at Bonwire, wood carvings at Ahwia, adinkra printing of cloth at Ntonso, metal castings (lost wax) at Krofofrom are still in existence. These traditional crafts have been practiced in Ashanti since earliest times, and have sustained the rural economy and actually placed Ghana high on the world tourist map (Aidoo & Addai, 2017).

Bead-making remains a vibrant economic activity in the Krobo society, largely because the Dipo tradition is still in vogue and much cherished by the society. This is in sharp contrast to the case of bead-making in Asante which is on the verge of collapsing.

The decline of glass beads has been a problem for the people of Asante, Ghana. Reduced patronage, high cost of production, decelerated adaptation to modern ideas and technologies among others are the major causes of decline of glass beads in the

Ashanti region of Ghana (Aidoo & Addai, 2017). However, Krobo glass bead making industry has been expanded and creating employment for several people as customers prefer to patronize the glass beads rather than the glass beads produced from Atwima Akropong.

1.2 Statement of the Problem

Despite the long existence of glass beads production in the Ashanti Region, the contribution of this industry to the region's development and growth seem insignificant as compared to the Krobo glass beads. The production and usage of glass beads among the Asante, however, in the recent years have extremely dwindled. Perhaps, the marketing of glass beads among the Asante have suffered a major setback largely to its inability to compete favourably with the Krobo glass beads (Aidoo & Addai, 2017).

Glass beads production and usage, however, need recognition as essential aspect of Ghana's material culture. There has been increasing predictability in the choice and use of traditional glass beads by those who patronize the glass beads. In recent times, many people tend to appreciate traditional glass beads, preferably the ones produced by the Krobo people of Ghana. The high demand for glass beads produced by the Krobo motivates glass bead producers to produce in larger quantities. This study seeks to source views from traditional glass bead producers, glass bead traders and customers on the perception on glass beads as a product and also factors that inform the choice of the Asante and Krobo glass beads.

The researcher also observed that no comprehensive study has been conducted with regard to comparative study of glass beads produced among the Asante and Krobo of Ghana.

Though publications on glass bead production and bead making in Ghana exists, this research focuses specifically on the comparative study of glass beads produced among the Asante and Krobo of Ghana. It also delves into the customer's preference in selecting glass beads from these two areas. Kankam-Dwumfour (2009) study on recycled glass bead production in selected towns in Ashanti (Darbaa, Asuofia Asamang and Akropong) focused on identifying the well-known glass beads producing towns in Ashanti and examined the raw materials used for the recycled glass bead industry in Ashanti. Adu-Agyem et al (2012) explored into the traditional glass bead making techniques in Jewellery in Ghana and other countries. Avotri (2009) assessed the role of the bead in the contemporary life of the Krobo. Kotoku (2008) delved into the problems associated with the jewellery industry in Ghana.

Nonetheless, there has been a gap in analyzing the similarities and differences in the glass beads produced among the Asante and Krobo. There has also been the gap on the factors that inform the choice of Asante or Krobo glass beads. In view of this gap in literature, the researcher sought to embark on this study.

1.3 Objectives

The objectives of the study were to:

1. analyse consumers' perception on the Asante and Krobo glass beads as products.
2. investigate factors that inform the choice of the Asante and Krobo glass beads.
3. analyse the similarities and differences in glass beads production among the Asante and Krobo.

1.4 Research Questions

The research was conducted based on the following research questions:

1. What are consumers' perceptions on Asante and Krobo glass beads as products?
2. What factors inform the choice of the Asante and Krobo glass beads?
3. What are the similarities and differences of glass beads production among the Asante and Krobo?

1.5 Purpose of Study

This study sought to compare the similarities and differences in the production of glass beads among the Asante and the Krobo. It also sought to examine the factors that influence consumers' preference in selecting glass beads.

1.6 Delimitation

The study focused on Atwima Akropong in the Atwima Nwabiagya District of the Ashanti Region where glass beads is done. The study also focuses on Somanya in the Yilo Krobo District of the Eastern Region.

Specifically, the researcher interacted with the local glass bead producer at Atwima Akropong; Ashanti, Somanya in the Eastern region, bead users and youth at Kumasi and Koforidua, bead traders at the Kumasi Central Market which houses the largest bead trading centre in Ashanti Region and the northern sector of Ghana and Koforidua market.

1.7 Definition of Terms

Culture – It refers to the way of life, art, customs that are exhibited by a group of people with a common belief system.

Bead: It is a small coloured often round piece of plastic, wood, glass etc with a hole through it.

Bead making: It refers to the processes involved in making beads.

Bragoro: This is a rite of passage for Asante girls assuring them into adulthood.

Dipo: It involves puberty rites for Krobo girls assuring them into adulthood.

Glass: It is a hard, transparent material which is used to make windows, bottles or other containers and objects.

Glass bead: It is a bead made up of glass.

Kiln: It is an oven or furnace, for the purpose of hardening, burning and firing ceramics.

Stringing: This is the process of passing thread through the hole of bead.

1.8 Abbreviations Used

ADF -African Development Fund

GEPC - Ghana Export Promotion Council

KNUST -Kwame Nkrumah University of Science and Technology

NGOs -Non-governmental organisations

1.9 Organization of the Rest of the Text

The study has five chapters. Chapter One has already been outlined. Chapter Two focuses on review of related literature and Chapter Three explains the methodology used in conducting the study. Chapter Four deals with the presentation, analyses and discussion of results that relate to the objectives while Chapter Five presents findings, draws conclusions and makes recommendations made for implementation. This is followed by references and Appendices.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The chapter deals with review of related literature for the study. It covers the following headings: conceptual framework, concept of beads, earliest beads, earliest glass beads, development of Glass beads in Ghana, earliest glass beads in Ghana, uses of beads worldwide, cultural significance of Beads, similarities of glass beads worldwide, factors militating the growth of the traditional glass beads production, marketing challenges.

2.1 Conceptual Framework

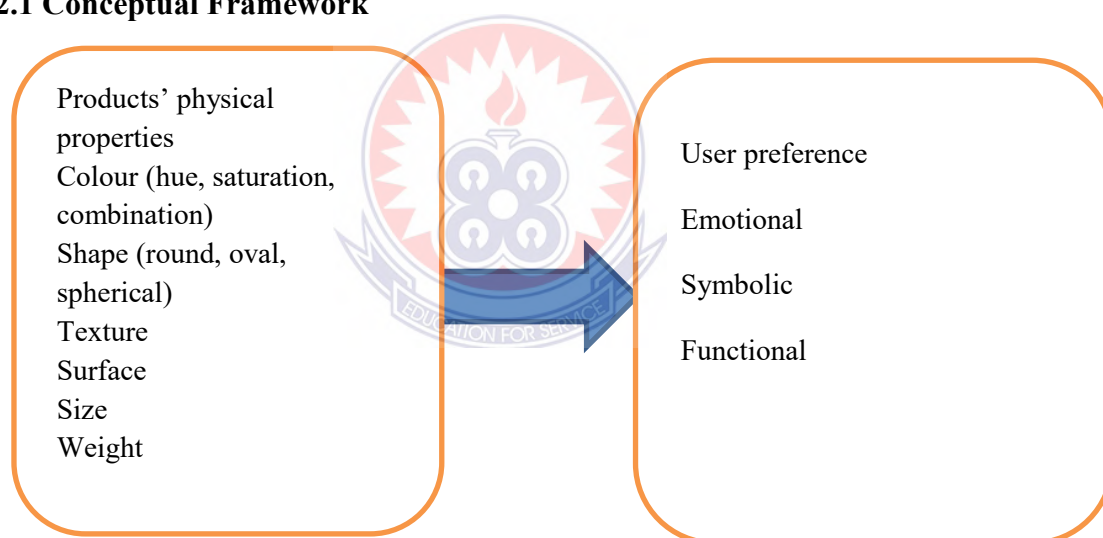


Figure 1: Product appearance perception and products physical properties

Source: Cruesen et al (2009).

Figure 1 highlights the model adopted by Cruesen et al, (2009) as a two-step model of product appearance perception. This is the same model that the research adopts in evaluation product preference by consumers. According to literature on product evaluation, one can assess whether consumers do actually perceive the meanings that the designer intended to design in the product using appearance or

attributes. According to Krippendorf (1989), in understanding that a product is meaningful depends on the product design. The appearance of a product helps the consumer to understand how to access the product on its functionality, aesthetic, symbolic or ergonomic motives. All these play a vital role in the overall product appraisal (Creusen et al, 2009). According to Creusen et al (2009) if the product meaning that is communicated to the consumer is unclear, people finds it extremely difficult to access the product and thereby limit the appreciation of the product.

First, when consumers appreciate a product appearance, consumers recognize certain physical properties that together make up the design of the product such colour, shape, and texture (Creusen et al, 2009). For example, refrigerators are rectangular and have a smooth, shiny white surface. Second, certain combinations of colours, materials and other physical aspects give a product a look that can be described by a certain appearance or attribute (Brunswick, 1952).

A DVD-player that is angular, metallic-looking and is made of a smooth material is perceived as modern. Attributes are considered to be more abstract than separate physical aspects (Kaul & Rao, 1994; Snelders, 1995; Veryzer, 1999; Geistfeld, Sproles, & Badenhop, 1977). The appearance attributes together provide the consumer with an overall impression of the product. When evaluating a product, one can assess whether consumers do actually perceive the meanings that the designer anticipated to design in the product using appearance attributes. Research by (Ellis, 1993; Orth & Malkewitz, 2008, Henderson, Giese, & Cote, 2004; Botti 2000; Colbert 2003; Botti 2000) introduced the following taxonomy of arts consumption benefits:

1. Functional or cultural benefits – or rather educational benefits (mb) – linked to a thirst for
2. Cultural knowledge.

3. Symbolic benefits linked to the need to demonstrate one's social position or personality.
4. Social benefits linked to the need for social contact and interaction with others.
5. Emotional benefits – or rather hedonistic benefits (mb) – linked to the desire for pleasurable experiences, which can be stimulating or relaxing experiences, and to the need to escape from daily problems and routine.

This taxonomy exhibits where arts marketing and thinking about the motives for arts consumption are considered.

2.2 Concept of Beads

Beads can be considered as small objects usually in a globe form with some also being cylindrical, polyhedral or irregular and are specifically made for personal ornament or beautify other wares used in chains (Newman, 1981).

Beads can be said to be small piece of glass, stone, wood, shells, metals or plastic etc with a small hole through the middle, usually strung together and used for jewellery or decoration. Beads are human artefacts that have been in existence since the dawn of civilization. Human beings, of different parts of the world, many millennia ago, were fashioning small objects of animal bone and teeth, seashells and colourful stones strung on especially plant fibre to adorn their bodies and clothing (Kotoku, 2008).

From the above, a bead can therefore be explained to be a small object which takes various shapes such as round, square, cylindrical and can be made from wood, plastic, stone, shell or glass with a small hole for stringing. This can take various shapes, colours and sizes and use for adornment or beautification. Bead is also a

round object made of glass, wood, metal, nut, shell, bone, seed or the like, usually small and pierced for stringing.

2.3 Earliest form of Beads

Various theories have made attempts to provide sufficient information on the origin of beads. The origin of beads is connected to a belief system where the Anglo Saxons used a bead article as a praying object (Cole & Budwig, 1994), They postulate that the term bead is derived from Anglo Saxon word “biddan”, that is to pray and “bede” meaning prayer. It was originally associated with “Rosaries” used in counting prayers by the world’s religions. Rosaries are a set number of beads for counting prayers, are used by more than half the world’s religion (Cole & Budwig 1994).

Dubin (1987), the evolution of beads and bead making has been discussed from 3000B.C. The earliest known beads were associated with Neanderthal man around La Quina in France approximately 38,000 BC, about 5,000 years earlier than the period of man’s figurative expressions (Dubin, 1987). Beads have been made on all the continents since they first appeared over 40,000 years ago (Coles & Budwig, 1994). Beads are thought to be one of the earliest forms of trade between members of the human race. It is thought that bead trading was one of the reasons why humans developed language (Pagel, 2015).

Archaeological findings revealed that a variety of gold bead necklace were worn in Mesopotamia. Egyptian nobles favoured wide collars of coloured gemstone, ceramic, or glass beads (Avotri, 2009). Beads made from earliest times and in all civilizations are of great variety of sizes and materials, including gold, silver or other metals, glass, porcelain, earthen ware, stone, coral, jet, wood, or other organic substance, jade or gemstone (Newman, 1981).

Beads were made from natural materials but were replaced by glass which the Europeans traded for salt, slaves, gold and spices. The Portuguese were the first to arrive in Africa followed by the Dutch, English, French, Belgians and Germans brought millions of Venetian, Dutch and Bohemian glass beads to Africa (Kumekpor et al, 1995). Most of the old, historical glass came from Venetia (Murano), Amsterdam; specially produced for the West African and maybe also for the North American trade (Kumekpor et al, 1995).

North America's native beads were made of materials such as quill and wampum and were replaced by imported European beads when the continent was colonized (Coles & Budwig, 1994). The migration progress together with the discovery of new continent through trade from the 15th century onwards when the world was flooded with European beads, aided the spread of beads designs and techniques (Cole & Budwig, 1994).

The exact tracing of the origin of beads and its routes have been difficult due to the migration and spread of beads making technology, Beads of all kinds are usually strung into necklaces, anklets, bracelets and waist bands or attached to clothing or furnishings. Strung beads are worn over, around, with or underneath everyday apparel. Beads of various types are generally grouped into the following; Glass beads, Plastic beads, Seed beads, Metal beads, Organic Materials (beads), Ceramic beads, Semi-Precious beads (Withers & Burnham, 1997). Beads are thought to be one of the earliest forms of trade between members of the human race. Bead trading was one of the reasons why humans developed language. Beads are said to have been used and traded for most of our history. In Ghana, beads are made of materials such as glass, shell, bones, twigs, seeds, metals, and are put on as necklace

in a way that the object may not appear to have been designed (Kankam-Dwumfour, 2009).

There are stories on the origin and powers of beads. Oral literature maintains that the precious stone and bodom beads are to be found at the point where the rainbow meets the earth. Stone beads are associated with thunder as they can be found after a heavy rainstorm and are believed to have been rained down in the storm. Among the Dangme of Ghana, the bodom bead is used as oracles because in the presence of this powerful bead one does not lie (Sutherland- Addy, Dagadu & Aidoo, 2011). The precious bodom bead was thought of as a living entity with the ability to breathe and to reproduce.

2.4 Earliest Glass beads

Glass was invented in Egypt about 9000 years ago. It has been crafted into beads by a technology developed by the ancient Egyptians and Romans (Coles & Budwig, 1994).

The origin of glass beads production began in Asia and the Middle East and spread through Egypt where various types of beads were made for special functions (Fish, 1992). Glass bead making is among the oldest human arts, with the oldest known beads dating over 3,000years (Dubin, 1987 & Gowlett, 1997). Glass beads have been dated back at least Roman times. The Egyptian faience beads are perhaps, the earliest glasslike beads. It was an enhanced form of clay bead with a glasslike coating. The spread of glass making technology was possible as a result of commercial trade. It is understood that the Egyptians were previously using faience, however established the core, wound and mosaic techniques of using glass to create beads and other decorations. They were the first culture to have glass-making guilds (Gowlett, 1987).

The art of making glass beads are originally designed to simulate semi-precious stones, from malachite and lazuli to diamonds, developed with the Ancient Egyptians and Romans, who also made an enormous variety of other glass beads (Coles & Budwig, 1994). Limitations of glass beads are not only to the Egyptians in the ancient times but between 2,000BC and 10AD in both Austria and Switzerland in archaeological sites, (Coles & Budwig, 1994).

Avotri (1999) reiterates that archaeological findings revealed a variety of gold bead necklaces were worn in ancient Mesopotamia and India. Byzantine courtiers and Mughal India nobility wore ropes of pearls. In Europe, pearls and glass beads manufactured since the 13th century were popular both for jewellery and embroidery. Women wore strings of pearls, first real, later artificial, a fashion that continued into the 20th century. Hundreds of tiny glass beads or seed pearls were embroidered on dresses, church vestments small pictures, boxes and baskets. Beads were also strung and knitted into ladies purses or used as fringe on dresses and lampshades. The history of glass bead making can also be traced from Western Asia and dates back to the third millennium BC (Fitch, 1992; as cited in Adu-Agyem et al; 2012). Glass beads are still produced in every corner of the world. Africans together with Native Americans incorporates the European beads with their own traditional color and jewellery design

Glass beads were initially made to imitate precious stones. Glass beads were used for decoration, trading, religious purposes, and even as a form of currency. The contribution of various cultures to glass bead making continue to refines our world from ancient times to present. The West African trade in glass beads falls into distinct historical categories starting with Islamic bead production and trade, between A.D.800 and A.D.1500 (Wilson, 2003). The Islamic faith originated in Arabia in the

seventh century and quickly spread to Africa, Asia, south-east Europe and China. Glassmaking centres were established in Egypt, Syria and the Levant (Lebanon). Between A.D. 900 and A.D.1000, Cairo became an important centre for bead makers who imported, processed, and traded coral, pearls, cowry shells and African ivory (Wilson, 2003). Glass is the artificial material that has the greatest variety of technique, both in its original manufacture and its subsequent decoration (Karklins, 2006). Perhaps it is for this reason that glass beads have been popular in West Africa and in Africa at large.

2.5 Types of Glass Bead worldwide

One of the most versatile and widely used material for the production of beads is glass. Glass beads have been produced since ancient times. Varieties of bead types produced from glass come in all shapes, forms, colours, sizes and undergo several production techniques. They include Venetian beads, lamp work beads, glass pearls, cateye beads, crystals beads, bumpy beads, among others (Kanungo 2004). In modern times, glass beads have become a popular form of jewellery, especially in African cultures where necklaces, anklets, and bracelets made of these materials. These beads are exceptionally colourful and bright, making them fashionable and famous in modern times for all cultures.

There are numbers of techniques in making beads from glass (Kanungo, 2004). They stressed that the categorization of glass beads are mostly done by the methods used to manipulate the glass such as wound beads, drawn beads, and moulded beads. They are also made up of multiple components, such as millefiori beads, where portions of a drawn glass cane are applied to a wound glass core.

Wound glass beads

It is believed that the winding method was used to produce the earliest beads using real glass. Glass are made at high temperatures are made to laid down or wound around a steel wire coated in a clay slip called bead release. The wound bead, while still hot, can be further shaped by manipulating with wood, graphite, brass, stainless steel, marble tools and paddles (Karklins, 1985). It may also be pressed into a mould in its melted state. While still hot, the surfaces of the bead are mostly decorated with fine rods of coloured glass called stringers. These are a type of lampwork beads (Beads library, 2014). Wound beads are often pressed with metal blades to produce a uniform shape. The most extravagantly decorated wound beads are known as fancy beads (Global Beads, 2019).

Drawn glass beads

The drawing of glass is an ancient method. Evidence of large-scale drawn-glass Bead making has been found by archaeologists in India, at sites such as Arekamedu dating to the second century (Kanunga, 2004). In making drawn beads, strands are pulling out of gathered glass in a way to assimilate a bubble in the middle of the strand to serve as the hole in the bead. It is done by inserting a hollow metal tube into the ball of hot glass and pulling the glass strand out around it, to form a continuous glass tube (Kanunga, 2004). The drawn tubes are cut, creating individual drawn beads from its slices. The created beads are rolled in hot sand to make the edges round without melting the holes created. The beads are then sieved into sizes and mostly strung onto yarns for sale. Drawn beads are also called Cane beads. Drawn beads were produced by dipping an iron blowpipe into molten glass and slightly blowing air through the pipe, allowing for gathering to form at the end. Puntil rod is

used to pull the gathered glass into a long hollowed form. They are then cooled and broken into single beads. (Davidson, 1972).

Drawn beads consist of all glass beads produced by drawing out a tube of glass from a large hollow tube like drawing out a thread of toffee. The globe might consist of several different coloured layers or adorned with rods of or lumps of coloured glass to form a strip. Usually the decorations on drawn beads are stripes of uniform thickness that run parallel in the direction in which the beads were drawn. As glassblowing technology did not exist in early Sub-Saharan African regions, locally produced drawn beads were made by trapping air bubbles in molten glass and then drawing the glass into a cane form (Carey, 2003). The different classifications of drawn beads depend on the number and shape of the different layers of glass. One of the most valuable drawn beads is the chevron bead, also called powa in Krobo. Powa is a multi-layered, drawn bead in which many of the layers are star shaped, and the usual colors are red, white, and blue. Koli bead is a type of drawn bead. The parallel lines in koli beads shows that they are reheated as the result of the air bubbles the glass burst (Wilson, 2003).

Moulded glass beads

In Sub-Saharan Africa there is evidence of beads produced from molds. (Davidson, 1972). The production of moulded beads was done by dropping heated glass into an already formed open clay mould. Punches are then created with a core to take the form of the clay mould. Holes could then be drilled through moulded beads or, beads produced from half moulds could then be adhered together (Robertshaw, 2010). They are produced by heating thick rods to melt and fed into a complex apparatus that stamps the glass, including a needle that pierces a hole (Wilson, 2003; Karklins, 1985). Rotary machines are used to mould the glass beads. Melted glass is

created in the middle of the mould and hard glass beads are formed. Molded glass beads are made in Czech Republic and Bohemia and are known for its ability to produce expensive and production of variety glass beads (Jargstoff, 1993).

2.6 Development of Glass beads in Ghana

The origin of Bead making in Ghana remains unknown, but the great majority of powder glass beads produced were made by Ashanti and Krobo craftsmen and women (Barbot, 1746). Glass beads were first developed by the Ancient Egyptians and were brought to Africa from India in about 200BC by Arab traders (Anquandah, 2003). By 1680, quantities of European glass beads had reached Africa. When the European nations- Portuguese, Dutch, Danish, British, French, Swedes etc. established trade with the locals, among the goods they used exchanged for slave, gold and ivory were glass beads. Archaeologists who have investigated settlements of the pioneers of farming and village life in prehistoric Ghanaian communities from Gambaga to Ntereso, to Daboya, Kintampo, Begho, Enchi, Kumasi and south ward to Accra plains, have consistently found remains of beads made of stone, agate, shell, bone etc. These earliest beads range in age between 4000 and 2500 years (De Corse, 1989). One such site was Boyase hill near Kumasi, capital of the Ashanti region. Archaeological site at Daboya in the northern part of Ghana produced a collection of imported glass beads. Many of these imported glass beads were made between A. D. 700-1800. Other excavation sites also uncovered glass beads similar to early Islamic beads. Apart from the imported glass beads, archaeologists have also uncovered glass wasters in Begho in the Brong Ahafo indicating glass bead work. This provides compelling evidence for local production of glass beads from the seventeenth or early eighteenth century (De Corse, 1989; Anquandah, 2003).

The earliest known beads in Ghana have been recovered from Late Stone Age sites (Kumekpor et al, 1995). It was discovered at the Kintampo rock shelters. Evidence of majority of large numbers of smaller shell beads have been discovered from Ntereso in the savannah grassland region of Northern Ghana (Davies, 1980). Originally beads were made from natural materials but subsequently replaced by glass beads which European traders brought to trade for slaves, salt, gold and spices (Kumekpor et al, 1995).

An enormous range of beads and raw materials for beads have been available to Africans for centuries and therefore have an ancient history in Africa. The date for the advent of Powder-glass bead making techniques in Africa is not certain, although it is thought that they began appearing in the sixteenth century. Since then, glass beads are concentrated in today's Niger, Nigeria and Ghana. This tradition remains intact, and today the Bida of Nigeria and the Krobo of Ghana are two of the most important African glass beads manufacturers (Dubin, 1987).

The revival of glass-beads in Ghana began in the 1950's when the industry faced the prospect of severe poverty. Craftsmen and artisans among the Asante and Krobo ethnic groups decided to pool their bead-making talents with the objective of producing glass beads on a massive scale (Anquandah, 2003). Anquandah (2003) opines that by the 1960's and 1970's' many Ashanti villages were engaged in powder glass bead production at villages such as Dabaa, Ohwim, Abrade, Adankwame, Esaso, Asamang, Mampong, Wiampoase, Tantakro, Wonoo etc. Also places where beads are produced in Ghana are Odumase- Krobo, Asuofua-Asamang and Sekusua Bamase, where beads were produced in nearly every household.

The popularity of beads among the Krobo has been enhanced greatly possibly because of their cherished puberty rite for girls in dipo (Kweku Amoako-Attah, 2001).

2.7 Background of glass beads production in Ashanti and Krobo in Ghana

Glass Beads have long had their place in Ghanaian culture, but it was not until relatively recently that artisans in the region began producing them in their own right. Glass beads production in Ashanti Region is known to have originated from Darbaa in the Atwima Nwabiagya district. Oral traditions have credited one Opanin Osei Kwame of Darbaa as the originator of the craft before spreading to the neighbouring villages and communities (Kankam-Dwumfour, 1999). Agya Osei travelled into a foreign land where he learnt the art of fused powder glass bead making and started its production at Darbaa upon his return. (Kankam-Dwumfour, 1999). The origin of glass beads production in Krobo land is not different from the Ashanti as it is unclear as to how glass beads production began in Krobo land. This is backed by Avotri (2009). However, it is not too clear how beads got to the ground but the earlier settlers in Krobo land used to mine beads. Beads were believed to have been dug from the ground by the earlier settlers in Krobo land. The beads are found usually at the ends of the rainbow. Bead making has been a generational business handed over to her by her parents (Avotri, 2009). The modern production of beads is in this sense a family tradition where tools and techniques are passed from one generation to the next. The industry was originally a family industry and the skill was passed on from one generation to the other within families. Currently, however, crafts persons may pass their skills on to interested individuals from elsewhere (Sutherland-Addy et al, 2011). The glass bead business is a family business and in times past has provided employment for her great grandparent and currently she has passed the business on to his son. Several properties including a house have been acquired through this business. The joy in making beads even at the old age of the producers led to them in the stringing finished beads for marketing.



Figure 2: Stringing beads for sale,

Source: Photograph by researcher.

The customers, both local and foreigners from Mali, Benin among other places locate the producers at home when absent from Koforidua Market on Thursdays.

The glass beads were produced when the glass bead production was vibrant and active in the towns where they were produced. Respondents indicated that the glass bead production became a lucrative source of livelihood with almost every member of a family engaged in its activities. It has been a promising business and the younger generations has learnt it from the older generation. People who assisted the beads producers ended up learning the craft. Others learnt the craft through traditional apprenticeship.



Figure 3: Meteye beads

Source: Wikipedia (2020)



Figure 4: Meteye.

Source: Photograph by researcher

Meteye beads were made by the Ashanti people of Ghana but production ceased during the 1940s. Longitudinal seams that can often be observed on these beads give evidence that they were made in horizontal molds. Meteye beads are often ellipsoid in cross section and they have a rough surface on the side which touched the bottom of the mold during firing. They can be dark yellow, and green, blue or white, with stripe decorations in combinations of blue, yellow, white or red (African Beads, 2013). The glass-making revival began in the 1950s when, faced with the prospect of severe poverty, several artisans among the Asante and Krobo tribes decided to pool their bead-making talents, and begin producing glass beads on a massive scale (African Beads, 2013). These small co-operatives paved the way for a multi-million dollar economy in this small corner of Ghana, which has since become known as the bead-making hub of West Africa (African Beads, 2013).



Figure 5: Akoso beads,

Source: Cedi Beads, Collection of the Newark Museum



Figure 6: Akoso and Bodom powder-glass bead, 1999,

Cedi Beads, Collection of the Newark Museum

Akoso beads are among the oldest glass beads and still produced today. Akoso beads are mostly yellow with green, and not often blue or black specimen. Most of the glass bead makers are inspired by the designs in these old glass beads and always produces new beads from it. Currently, Bodom bead from about two to eight

centimeters are mostly placed at the centre of necklaces as pendants (African Beads, 2013).



Figure 7: Bodom as pendant
Source: Photograph by researcher



Figure 8: Bodom as pendant
Source: Photograph by researcher

By the 1970's horizontal-mould bead making had become relatively rare; however, special beads continue to be produced by the Krobo bead makers using horizontal-mould techniques (Gott, 2014). The glass beads production was produced on massive scale in the 1980's.



Figure 9: Painted and transparent Glass Beads, 1980's.
Source: Photograph by researcher.



Figure 10: Women's waist beads, 1980's

Source: Recycled powder-glass beads,
Collection of the Newark Museum

The women's waist beads in figure 10 were made usually to resemble the "kente" designs. They were made in oval shape, so molds and mold marks are often evident along their sides. Currently, Ashanti bead makers produce similar waist bead.



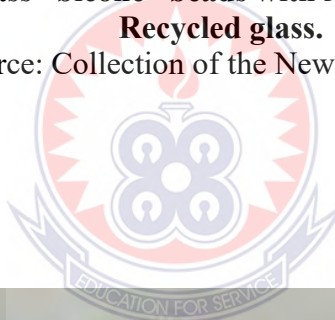
Figure 11: Powder-glass beads, 1990's

Source: Collection of the Newark Museum.



**Figure 12: Powder-glass “bicone” beads with Ananse design, 1990’s, Ghana.
Recycled glass.**

Source: Collection of the Newark Museum



**Figure 13: Painted beads imitating Venetian Millefiori, early 21st century Ghana
Recycled glass and ceramic dye pigments.**

Source: Collection of the Newark Museum

Figure 12 shows Powder glass bicones produced in the 1990's imitates long-established Venetian lampwork designs. Though there have been imitations of glass bead making as artisans are reproducing the old indigenous style. Gott in Sordinas, researching Krobo bead making from 1959-1960 were concerned about how European were copying the powder glass designs (Gott, 2014). Bead makers have reported of European agent sent to learn the locally produced powder glass designs. The agents sent the bead design to European artisans who produce in mass quantities at lower cost. Local bead makers through creativity have always come out of new designs to compete with these European beads imitation of the local beads (Gott, 2014). The "Ananse" design is produced using alternative layers of coloured glass, which are then pierced with vertical stripes.

Some of the Ghanaian beads came from elsewhere originally and became incorporated with the Powder-glass beads that the Africans made. Those beads have been referred to as African Trading Beads because they were originally brought over by Europeans and others, to various parts of Africa, including Ghana, and used in trading for goods or services (Wanda, 2014). The archaeologist Alastair Lamb, who admired and researched Ghanaian powder-glass bead designs said they are clear imitations of European types (Gott, 2014). European explorers and traders began to arrive in the 15th century and this was followed by a tremendous influx of beads during the colonial period. Today the tradition of beads continues to be fixed in African culture and old trade beads are still used for internal commerce.

During the twentieth century, powder-glass bead making became centered among Krobo and Ashanti in Ghana, with Krobo bead artisans becoming the primary produces and innovators in powder glass bead making (Gott, 2014). The entire household in the Yilo villages were and currently involved in the glass beads

production. Glass beads has become an integral part in dipo puberty rites celebration, because of this rites almost all the villages in Yilo Krobo are involved in the production of beads. This rite among the Krobo has contributed immensely to the popularity of the glass beads culture. Dipo rites ushers young girls to adulthood and all through the stages of the celebration various types of beads are used.



Figure 14a: Dipo Initiates
Source: Courtesy, Dede (2020)



Figure 14b: Dipo Initiates
Source: Courtesy, Dede (2020)



Figure 15: Dipo Initiates.
Source: Courtesy, Dede (2020)



Figure 16: Mother of the Initiates
Source: Courtesy, Dede (2020)

Dipo girls are adorned with beautiful and colourful beads on the neck, wrist, waist and knees. The quantity of beads used illustrates the wealth of the parents or family of the initiate. Because of the dipo many people are forced to enter into the glass bead production to produce their own beads for use and for sale. During the dipo rites, beads are given as gifts for the bride and the bridegroom. The Krobo uses beads at all ceremonies and stages of their lives.

Krobo bead makers have both international and local customers and work to their satisfaction. Productions are done to meet deadline this has helped the industry to grow. Houses and properties have been acquired through the production of glass beads amongst the bead makers (Gott, 2014).

In late twentieth and the early twenty first century Ghana, there have been innovations in the form of new translucent and painted glass bead making techniques. This have largely replaced the traditional mold-formed powder glass design processes, have been incited on by contemporary bead maker's creativity and initiative in cultivating new local and international markets (Gott, 2014).

Currently, the glass bead production at Asuofia Asamang in the Ashanti Region has almost died out. It was realized that equipment such as the glass grinding machine and polishing machine donated by the African Development Fund have all broken down. A former glass bead makers in Asuofia Asamang, emphasized that because the bead-making business has died out, the building facility philanthropically built for them is now a residence to house national service personnel posted to the area (Aidoo & Addai, 2017). This confirmed a previous observation by the researcher that the glass bead production in Ashanti has declined.

2.8 Similarities of Beads worldwide

Millefiori Beads

A glasswork technique that produces unique decorative patterns on glass ware is termed Millefiori. Mille (thousand) and fiori (flowers) are combination of Italian words.

Apsley Pellatt in his book 'curiosities of Glass Making' was the first to use word and in 1849 it was added to the oxford Dictionary (Global Beads, 2011). Millefiori beads vary from diverse designs and colours on glassware. Unlike ancient beads, millefiori are typically by longer shape. Millefiori is also called mosaic beads which was the name used before the adoption of the name 'millefiori' (millefiori, 2019). It is now associated with Venetian.

Fish (1992) describes millefiori (mosaic) and chevron beads as best known Venetian beads. The millefiori technique involved construction of glass cane or rods known as murine, with multi coloured patterns. A murine rod is heated in a furnace, pulled until thin whilst still maintaining the cross section designs (Global beads, 2011). After cooling, it is cut into slices. After the slicing, the slices are poured to a melted glass background to give a delicate millefiori glass beads. After the thin strips of murine have been added to the surface of the beads, they are headed and then smoothed to make sure the pattern covers the entire bead (millefiori, 2019). The method is still used today with more improvements. It is typically with polymer clays which are easier to decorate with millefiori in patterns as compared to glass because they are more flexible. In the 19th and early 20th century, millefiori beads were used extensively in Africa. The beads were commissioned by Europeans who used them to trade with Africans. For the beads, the Europeans got goods like ivory and palm oil.

The millefiori beads are a quite a bit bigger than the Venetian beads. Unlike Venetian beads, millefiori are different in pattern and colour and are usually darker. Few millefiori beads from India are generally one colour, and only have a little cane slices on them (millefiori, 2019).

Indian Beads

The production of beads among the Indians has long history with little changes in their production styles. They only began to mass produce Indian millefiori beads in the 1980's and it resembles Venetian trade beads that were produced during 1980's (millefiori beads, 2019).

General characteristic of Indian bead is that the perforation is usually larger than the original Venetian beads. They are handmade and so vary in size, shape and colour. The figure below shows Indian bead and a Venetian bead.



Figure 17: Indian bead
Source: Bead Museum (2020).



Figure 18: Venetian bead
Source: Bead Museum (2020).

These two pictures show three Indian beads and their perforations.

Venetian beads

Venetian has been producing beads for ages. Venetian beads were usually made by dripping hot glass onto an iron rod covered with special non-stick paste.

Later in 1470 Venetian artisans started to create hollow cylindrical glass canes which were cut and refined by grinding or heating and has continued till date (millefiori, 2019).

Indonesian Beads

Indonesia has quite a history in bead making, with ancient Jatim beads produced from 900 A D to be the earliest form of ancient millefioris. Indonesian millefiori beads are similar to that of Venetian style millefiori beads' because they both have an excellent finish (millefiori, 2019). Majority of Indonesian beads have been produced not earlier than 1995, and after 2005, with diverse and better colours. A number of the beads are made to categorically be similar to the patterns on their Venetian equivalents making it difficult to differentiate in between the two. Indonesian beads are evidently moved by the trade beads, but have their own patterns, colours and shapes. The size and finishing of Indonesian beads are the two paramount ways to differentiate between them and other beads. The glass used in majority of Indonesian millefiori beads is translucent and has a greasy finishing appearance. They are usually wider and longer than most Venetian beads. Figure 14 and figure 15 show an Indonesian bead on the left, and a Venetian one on the right.



Figure 19: Indonesian beads
Source: bead museum (2020).



Figure 20: Venetian bead
Source: bead museum (2020).

All the types of beads have varied similarities with the Venetian millefiori beads. They specially copy the patterns and designs of the millefiori beads and attempt to produce close to the shapes and colours of millefiori beads.

2.9 Earliest Glass Beads in Ghana.

The following are types of glass beads produced in Ghana.

Bodom Beads

Bodom Beads are sand-cast beads produced exclusively for tribal leaders. Bodoms are typically larger beads, than most other types of Recycled Glass Beads with a smooth, thin outer layer of ochre yellow enveloped by an outer layer of glass. Bodom Beads usually feature a diamond shape on the outer skin, created by layering glass powder of different colours in a bead mould (African Beads, 2013). These are also big beads that are usually made for kings/chiefs and queens. The term Bodom and for that matter bodom beads means barking beads. It is barking because of the role it plays in the assembly of beads. It is said to support or enhance the presence of the smaller beads. The processes of producing these types of beads are similar to the recycled powdered glass beads. The designs on these beads are generally referred to as Akoso design (Avotri, 1999).

Painted Glass Beads

Painted glass beads are also known as Fancy Powder Glass Beads, these are beads which have been skilfully hand-painted to make them look like old Trade Beads. Painted glass beads are typically smoother than plain Recycled Glass Beads because they are tumbled several times when cooled. Traditionally, they are painted using vegetable dyes; however, most designs are now painted on with coloured glass frit. The beads are then fired the second time to harden the outer coating. (African Beads, 2013).

Akoso bead

Akoso bead is one of the oldest Ghanaian dry powder glass beads dating from the 1950s. They are by the Krobo. The most usually used colour of Akoso beads is yellow. Other Akoso beads are also green, and hardly blue or black specimens. The glass surface is often worn out at the ends and around the middle line of the beads, showing a white and black core. (African Beads, 2013).

Like the bodom, the Akoso is a high quality type of powder glass bead found in Ghana, West Africa. Akoso beads are believed to have been made during the 19th century, but their origins are anonymous. The bead producers' in Ghana no longer produce this type of bead. Unlike the bodom, Akoso is different in the way it is produced. It is produced by the dry-core technique and it result in grayish core on larger beads. Also it can result in no core on larger beads. The Akoso bead is typically an elongated or cylindrical in form, and it has more decorative motifs than the bodom beads. It normally has a yellow base and is decorated with stripes, crossed loops, and spots finished in various colours. Shades of green are also found, usually decorated with simple stripes of black and pink. Majority of people believe that the pink was made with a variety of crushed Venetian trade beads with red and white layers, known as cornaline d'Aleppo (Wikipedia 2019). This highly valued Akoso bead has a distinct elongated and cylindrical structure and crossed loops that are well finished in layers of blue and black.

Translucent Beads

Translucent Recycled Glass Beads are the most common variety produced by the Krobo and Asante. They are often likened to sea glass beads because of their rustic, eroded aesthetics. This is achieved by tumbling the beads in a mix of sand and

water to age the outer layer. Genuine Krobo beads are usually two-tone in color, with no visible seam (African Beads, 2013).

Meteyi Beads

These were made by the Ashanti people of Ghana. Longitudinal layers that can usually be seen on these beads give indication that they were produced in horizontal moulds. Meteyi beads are normally ellipsoid in cross section and they have a coarse surface on the side which touched the bottom of the mould during firing. The colours of meteyi beads are opaque yellow, green, blue or white, with stripe patterns in combinations of yellow, blue, red or white. Manufacture ceased during the 1940s (Barbot, 1746). It is not uncommon to find similar designs carrying different names and even used differently among various cultures.

2.10 Uses of Bead

The use of beads in the country dates back to centuries long before the arrival of the Europeans. The variation of materials used in making beads in Africa varies the same as the uses. The social, political, religious and economic history of the producers and users of glass beads depicts the production of glass beads and it often reflects their culture, (Agye et al 2012).

Beads from earliest times to modern day have been used for several functions. Beads have been used all through the world in numerous ways such as talismans in prehistoric. It is used in contemporary societies such as status symbols in the ancient world and in present day Africa such as religious artefacts in the Buddhist, Christian, and Islamic faiths. Beads are also used as standard medium of trading throughout the world. Each bead is thus a shell of cultural information, containing an attractive tale of the roots of its materials, its manufacture, its uses, perhaps its travels, and certainly

its effective illustration (Wanda 2014). They are used for decoration, wealth, trade, religious activities and social status.

Beads for Status symbols or social status

Beads and beaded jewellery worn as status symbols can indicate wealth, rank, age, marital status, and station in society. Beads communicate different societies' values especially keenly in Africa, where a Zulu girl's beaded love letter to her sweetheart is a complex language of coloured beads and there are forty (40) words for different types of Maasai beadwork. Beaded clothes and jewellery feature significantly in the life of an African Wodaabe girl, and are specially made to show her status at a courtship festival (Cole & Budwig, 1994).

Glass beads in Sub-Saharan regions were used as an economic tool, denoting wealth and political power. Production of beads in great quantities could also be offered by Obas to various deities as a symbol of appreciation of such granted political and economic power (Dubin, 1987). Yoruba kings frequently exhilarated difficult and abundant glass bead working as a pictorial symbol of their nation's wealth (Dubin, 1987). Majority of beads could also be offered by Obas to various deities as a symbol of gratitude of such granted political and economic power (Dubin, 1987).

Beads are used to determine the rank of a person in a society. In that, the beads of a chief are different from that of his subordinates. Aigri is a string of beads worn around the neck and arms of people of high esteem in the Gold Coast. Among the Ewe people in southern Ghana, a person who has distinguished himself by means of great achievement is welcomed with string of precious beads to signify his feat (Cardinall, 1924). Among traditional priests, such as the Ga Wulomo, wear special

bead ornaments to signify priestly rank or office, spiritual power and purity (Anquandah, 2003).

Beads for decoration

Bead jewellery was worn by women as well as men to enhance beauty and as a sign of status. From the Renaissance beads were sewn onto clothing, and the embroidery beads, rocailles and bugles, have become glamorous fashion garments (Coles & Budwig, 1994). During marriage, beads form part of the brides dressing and in some societies beads accompany the bride price (Kankan-Dwumfour, 1999). Women wear beads as wrist bands, necklace, earring, hair slides while men use them as cuff links and pendants (Wilson, 2003). In the domestic family precincts, females wear necklaces, bracelets and pendants as body ornaments. Forty to fifty years ago, it was quite common practice for adult females to wear colourful waist beads to arouse sexual partners (Anquandah, 2003). Beads worn around the waist also help to give the female waist a special Ghanaian shape which makes a significant impact on men (Antubam, 1954).

Bead was traditionally used by women, especially, the chiefly or noble class in the society as a decorative item worn mostly around the waist and wrist, and sometimes the neck. This confirms the view of Amoako -Atta (2000). Beads worn by women are waist beads are used as an intimate adornment. They are worn under the cloth where only the husbands are to admire. Antubam (1954) believes that beads permanently worn on the waist and knees in childhood lead to shapely of buttocks and calves. Beads are mostly used by the females in the society, normally around the waist. Beads are worn as earrings, on the neck, wrist, knee, leg and other places. Some glass beads are worn from birth to death and are buried together with their

owners in some parts of ethnic groups in Ghana, example is the Krobos. The usage and time varies with the beauty of glass beads (Agye et al, 2012)

Beads for trade

For centuries beads have been traded for precious commodities by sea or land. From the fifteenth to the nineteenth century beads at the forefront of the world sea trade were exchanged for gold, ivory, palm oil and even slaves in a profit-making venture bound up in colonization. Thousands of European beads came into Africa, Asia and the Americas (Coles & Budwig, 1994).

When the European nations established trade and cultural contacts with the locals, among the goods and products which they introduced in exchange for gold, slaves, ivory were glass beads of different colours which became very popular with the local female population (Anquandah, 1982, p.26)

Glass beads were cheap, light and easily transportable. Beads were therefore shipped in millions to West Africa around the 1650s (Anquandah, 1983).

From the duration of Medieval Period, trade of a specific style of glass bead, the Trade Wind bead, controlled the market. These beads ranged in colour and length but could be mass-produced (Dubin, 1987).

There has been a series of disputes as to India and Sri Lanka contributing significantly to the exchange of Trade wind beads and also them taking part in the primary production of glass beads for such beads. In the olden times, there has been establishment of trade business in the East of Africa among the Egypt, Greek and India. With the Arabs finally invading in the eight century and also trade routes established with wealthy kingdoms of Ghana in modern day Mauritania.

Glass beads were sent to Niger Delta to trade for gold and slaves by the Arabs (African Beads, 2014). On the Gold Coast, beads were used in slave trading. The fantes prefer plain yellow bead, the Amanaheans (Cardinall, 1924). Meyerowitz (1959) also explains that from the fifteenth century onwards, the Bono people of Akan exchanged gold for “Bota” and “Bodom” beads.

Trade beads have been used in exchange of goods, slave, palm, oil in Africa by the European.

Beads used during slave trade

Many nations became involved in the glass beads trade with Africa most importantly the European nations. This subsequently helped in the foreign exploitation of natural resources including slaves. Africa was viewed as uncivilised to the world by Westerns. ‘Slave beads’ which was the crude name for glass beads were usually traded for human cargo which was then shipped and traded for other desired goods. This resulted in the residual effect of glass beads traded across the Sub Saharan Africa. Though most regions suffered economically and socially by reason of the abusive foreign monopolies, but some nations also flourished from this interaction. There were benefits by the coastal ports which served as the initial points of contact and this can be traced from access to imported goods, profiting from their own consequently distribution to regions inland.

The rise of empires in Ghana and Mali around the 8th-13th centuries, as well as the Kingdoms of Benin during the 16th century by many scholars is fundamentally related to the access and distribution of foreign glass beads (Dubin, 1987). Beads were used in the barter for slaves, ivory, palm oil and gold in previous centuries in Ghana.

Beads for religious activities

Rosaries, a set of beads for counting prayers, are used by more than half the world's religions: Hinduism, Buddhism, Islam and Roman Catholicism. Coles and Budwig (1994) emphasize that traditional priests are recognised by the style in which the beads are worn. For instance Akan priest wear a bandolier of tiny red beads while Ga priests wear black round beads and white flat beads as their priest symbol (Field, 1961). The people of Aburi tie three strings of precious beads below the knee of officiating priest during their yam festival to signify his priesthood (Opoku, 1970).

Beads use as currency

A cowrie shell belt on some Pacific islands is a currency and, like a diamond, increases in value as it changes hands. 19th century European trade beads brought in Africa until. Until 1950 the Zulu people imported 40tons of beads a year as currency (Coles & Budwig, 1994). Beads were used for many years as currency for trading. People traded beads for goods. Beads therefore played a significant role as currency in trade in the past, but today, with the introduction of banknotes, cheques, there may probably be a decline in the use of beads as currency (Doney, 1996). Equally, cowrie, once used as currency, is often used as bead by persons holding ritual office or involved in rituals (Sutherland- Addy, Dagadu & Aidoo, 2011).

Beads as Amulets or charm

Coles and Budwig (1994) opine that beads have played a talismanic role in many cultures. As a source of luck and protection, and to appease spirits, they adorned rich and poor alike either in costly or cheap materials. Beads were scattered on crops in Asia to bring a good harvest, a Filipino wedding cup contains a bead, and to have therapeutic qualities which pass to the wearer. Eye beads since the Stone Age, are still worn to deflect the evil eye Sackey (1983), during pregnancy beads are worn

as charms by pregnant women on the waist, wrists, ankles and neck to protect them throughout the pregnancy and their unborn babies. Beads such as “Ahuhuani” and “Egyinamoani” were used for such purposes. Fish (1992) argues that the “Bodom” beads of Ghana when worn by to protect people from danger. They are used to protect the wearer of the bead against any bad omen. Bodom” beads are believed to possess fertility qualities as such these beads are worn around the waist to cover the pubic area of the initiates (Sackey, 1983). Beads also serve as child amulets which are believed to serve as antidotes against diseases and spiritual attacks (Anquandah, 2003).

2.11 Cultural significance of Glass Beads

The cultural values Ghanaian societies derived from the bead items cannot be overstated. Beads play a significant role in the performance of traditional rites and ceremonies such as naming ceremony, puberty, marriage to death rites. Ceremonies constitute an important context for expression of individual sentiments such as joy or sorrow. Soon after birth, tiny white beads are placed on the wrist and waist of babies’ knees. It is believed that beads permanently worn on the waist and knees in childhood lead to shapely of buttocks and calves. A woman after giving birth especially among the Akan wears white beads from the single string bracelet and necklace for many months after giving birth. In Fante dialect of Akan the white tiny beads as called ‘mfufua’ (Sutherland- Addy, 2011). Sackey (1983) explains that the Fante use little gold nuggets with little “Bodom” beads “Bodomba” and tie tiny white beads “Mfufua” on the wrist, legs and waist of the child, the mother and other close relatives also put on “Mfufua” to signify their victory and joy.

The colour of beads, their shape, size and the materials out of which they are made are all imbued with deep meaning which enables the beads displayed to speak to

a gathering. Beads worn by individuals as they go about their daily lives can speak of personal joy or anguish which may not necessarily be verbally expressed. Individuals often wear beads to express a personal aesthetic and style (Sutherland- Addy et al, 2011). In contemporary Ghana, different ethnic group have different names for beads. Beads have existed for a considerable period of time. Among the Ga-speaking people, beads are called “ashinong”. In Dangme, a language having close affinities with Ga, beads are known as “mue”. Among the Ewes and Anlo people, beads are referred to as “dzonu”. In Akan land, beads are known in the various dialects as “ahene”, “ahwene” and “ahendze” (Anquandah, 2003).

Puberty rites determine the transition from childhood to adulthood, in the case of the female, from girlhood to womanhood. The Krobo people of the Eastern Region of Ghana are said to have a remarkable culture of puberty rites in which young women not only wear beads around their necks but also wear a girdle made of several layers of heavy beads. Puberty rites performed by the Krobo makes use of beads. Since the aim of puberty rites is geared towards marriage and reproduction precious beads like "Bodom" which are believed to possess fertility qualities are necessary in them. Young women not only wear beads around their necks but also wear a girdle made of several layers of heavy beads close to the reproductive organs so as to make their fertility effective. Beads are used not only to protect and preserve womanhood but they are believed to serve also as a stimulant during sexual relations. The rattling of the woman's waist beads is said to stimulate the male partner. Waist bead also help to form the female waist into a particular shape, considered beautiful in the Ghanaian sense of judgement, which makes a "substantial impact" on men (Antubam, 1954).

Some religions in the Ghanaian communities do not support these rites and has led to its suppression. Currently, with the appearance of sexually transmitted diseases,

there are vocal advocates for the return to a modified fear of humiliation. They added that the promise of glory would act as a deterrent from precocious sexual activity (Sutherland- Addy et al, 2011). Beads are worn during marriage. The brides and sometimes groom are found wearing bead necklace on the neck. A variety of bead necklaces may be used as accessories by family members and other guests to the wedding ceremony.

Parenthood calls for the wearing of beads. The mother in particular wears white beads for many months after giving birth (Sutherland-Addy et al, 2011).



Figure 21: Bead used as Parenthood

Source: Koforidua, Eastern Region.

Funeral also calls for the wearing of beads. Beads are very useful during funerals where the dead, no matter their positions, are adorned with beads at the waist, neck and wrist. The type and quality of the bead used may however depict the dead person's position or social status. Among the Akans, while orphans wear a special kind of beads to depict their status, widows wear beads called "Gyako" and the mourners wear any kind of dark beads to signify their grief (Rattray, 1927). Among the Akan's and the Ga's of Ghana, weeds are used as beads and hanged around the

neck of the relatives of the dead at funerals to depict their closeness. In Ghana, especially among the Akans, when a corpse is being placed into the coffin, he is accompanied with money, beads, blankets and other precious objects which the people think he may need on his way to the unknown world (Sarpong, 1974). This practise has largely been abandoned due to grave looting. Mourners will wear beads that reflect their relationship with the deceased and their own status as well as their aesthetic preferences (Sutherland- Addy et al, 2011).



Figure 22: Mourners use weeds as beads

Source: Aboabogya, Ashanti Region.

The mourners with the weeds on their neck were expressing their deep sentiments for their dead king at Aboabogya in the Afigya Kwabre district in the Ashanti Region of Ghana.

Among several ethnic groups, reddish or purple (bauxite) bead necklace or bracelets are worn during funeral celebrations to symbolise a state of mourning (Anquandah, 2003).



Figure 23: Beads use for funeral

Source: Somanya.

Glass beads also functioned as a means of linking with one's ancestors. The heirloom beads which normally translucent, resembling wax having a discoid shape known as heirloom beads, they were typically translucent, and resembling wax having a discoid shape frequently could be traced back to the middle and late Iron Age. These beads were exceptionally prized and repeatedly passed on from generation to generation and are mostly attached to clothing or stored unassembled (Davidson, 1972).

In times past, older women were accused of passing on their powers of witchcraft to others by handing them with heirloom beads. Beads like words are an enigma, imbued with powers both positive and negative. Beads were often thought of as vectors for forces such as witchcraft (Sutherland- Addy et al, 2011). Witchcraft could be transferred from strangers to younger ones in the form of beads as gift, with old women attracting the most accusation. The belief is that once the person wears the beads, the witchcraft is transferred unto him or her (Sarpong, 1974).

The significance of beads has evolved over time. Beadwork is also done throughout Africa, being either sewn on clothing or used to cover objects such as calabashes, stools, masks and statues. Beads were once used as a medium of exchange. The older ones have delicate shades; more frequently in the modern

beadwork they are dull combination of dark blue, red and white. Beads and cowries, both imported materials, the former from Europe and the latter from Asia, are used in making jewellery, which is also made in great diversity of materials- metal, bone, seeds and wood.

2.12 Factors militating against the growth of the Traditional Glass Beads Production among the Ashanti and Krobo of Ghana.

Broken bottles which otherwise pose an environmental hazard due to poor disposal methods, are recycled for economic advantage. However, the glass bead industry is regardless of its challenges, a promising tourism potential to be developed further to create employment and to enhance its contribution to the development of the nation.

There is lack of protective or safety measures. The glass bead producers do not wear suitable protective clothing in the production processes. The producers use rags as a substitute for gloves. Protective clothing such as hand gloves, footwear, goggles or head covering are to be put on to avoid occupational hazards. The glass bead producers are supposed to wear protective clothing during production.

The glass production process is tiresome, laborious and a risky business which has health effects for the producers (Aidoo & Addai, 2017). There is excessive exposure to heat and other toxic substances. The heat that comes out of the kiln is so great that it causes ill health such as headaches, eye problems and burning of hairs among the glass bead producers. The longer hours of sitting and standing during the production process cause general bodily pains to the producers. The ceramic colouring oxides and glass dust used for producing glass beads contains some amount of toxic substances which are harmful to human health (Dwumfour, 1999). The glass

bead producers do not cover the nose and mouth when pounding glass. The use of nose masks is necessary to prevent inhaling. The inhaling of glass powder when pounding is harmful to the lungs (Aidoo & Addai, 2017). Preparing clay for mould is tiresome. The heat that comes out of the kiln during firing is also dangerous if care is not taken. The pounding of glass into very fine particle size involves time and energy. The pounding of the glass is done manually.

Most of the glass bead factory is in the open space in the community. There is no security, and health regulations are also not adhered to. The workplace is sandy and not cemented. There are no funds for glass bead producers for the construction of a proper place of work. The clay molds and other working materials are left at the workplace at the end of work.



Figure 24: Traditional Glass bead center, Somanya.

Source: Somanya.

There is no electricity at the workplaces. The polishing machine is placed in the house of the sole glass bead producer at Atwima Akropong. After producing the glass beads, it is taken home from the workplace to smoothen the rough edges of the

glass beads. Local glass bead producers without electricity are forced to close early and this may cause low production (Aidoo & Addai, 2017).

During raining season, production at Atwima Akropong is very slow because the kiln is in open space without no shed and its makes it difficult for the producer to work within that season. Production is sometimes done in the house. (Aidoo & Addai, 2017).



Figure 25: Glass bead center, Atwima Akropong
Source: Atwima Akropong.



Figure 26: Firewood kiln in open space, Atwima Akropong.
Source: Atwima Akropong.



Figure 27: Production in the house of a bead maker, Atwima Akropong
Source: Atwima Akropong.



Figure 28: Production in the house of a bead maker.
Source: Atwima Akropong.

Copying of designs of other bead makers is very common in the industry. Most of the bead makers are not creative to come out with new clay mold designs since it takes a lot of time to come out with a new design. Immediately the customers show interest almost every bead maker tends to copy or reproduce it, since such designs are not patented. The fact is same designs are found in the various glass beads

producing centres. In Ghana, the copyrights law protects the works of artists but it seems artists including glass bead makers hardly register their new designs. A customer buying glass beads does not really have enough designs to choose from (Aidoo & Addai, 2017). The glass bead producers in the areas of study are slow in adapting to modern ideas and innovative technological processes. Majority of the glass beads producers are illiterate who cannot source for latest information on the beads industry. They are not familiar with the latest computer designs, especially designs for three dimensional models. They are not in the position to explore the current happenings on the internet and world market. These do not make them competitive on the world market (Aidoo & Addai, 2017).

Financing the industry is largely done by the glass bead producers. This hinders the expansion of the industry. The equipment used by the producers has broken down which has caused low production of the glass beads among the Ashanti (Kankam-Dwumfour 2009; Aidoo & Addai, 2017). People are hired by the glass bead producers to go for raw materials such as clay, firewood and cassava stems and they all involved money. Production for that matter has become slow at the Ashanti.

The production cost of glass beads is exceptionally high. The costs of ceramic colouring oxides are expensive as they are imported. The colouring oxides are sold in powdery form. Labour cost is also expensive and this makes the producer not to operate in full capacity. The people who are hired to go for raw materials like firewood, cassava stems and clay for molds and they charge higher prices. The cost of splitting firewood cost money. The cost of firewood ranges from the quantity. Recycled glass and pounding of glass cost money. Every fifty (50) bottles of fanta recycled glass cost twenty (20) cedis for pounding (Aidoo & Addai, 2017).

2.13 Marketing Problems/Challenges

Marketers from African countries like Mali, Burkina Faso, Cote d'ivoire and other foreigners used to buy the glass beads in larger quantities from the Ashanti producers. They have stopped purchasing and this has indirectly affected the business. The price of glass beads at the production site is relatively cheaper than in the markets. The difference is the transportation cost of sending it to the market (Aidoo & Addai, 2017).

Glass beads are sold to individuals, and few retailers and whole sellers. It was observed that Mr Gyamfi, the sole glass bead producer at Atwima Akropong is among the glass beads traders at the French line of the Kumasi central market since the marketing is low at the work place. Currently production is low since there is low marketing.

Darbaa, Atwima Akropong and Asuofia Asamang which were specific communities well noted for the production of top quality glass beads in the Atwima Nwabiagya district in the Ashanti Region in the past. The head of the Asamang Co-operative Beads and Marketing society at Asuofua Asamang; argues that the then success of the business around the 1980's was enough to attract the benevolence of a private business enterprise, African Development Fund (ADF) who even erected a commodious building facility to accommodate the operations of the bead makers. The 31st December Women's Movement was instrumental in the setting-up of the glass bead factory (Kankam-Dwomfour, 2009).

The glass bead areas were busy on the production days that there was virtually no space for any other activity. The town was a very interesting and lovely place to be during the last four decades. The business of bead making was vibrant and profitable

that the glass bead producers were able to build houses and educated their children and grandchildren to higher institutions (Aidoo & Addai, 2017).

2.14 Summary

A bead can then be defined as a small ornamental object that is molded in various shapes and sizes of material such as glass, plastic, or wood put together for stringing.

Throughout history beads has been used in performing various functions but its exact origin remains unclear. The development of glass satisfied the desire of the people to wear beads. Glass beads are significant in both cultural and social setting. They are used at various functions like naming ceremony, puberty rites, marriage and funerals. The Krobos of Ghana embraced glass beads for the celebration of their popular dipo rites. Types of glass beads has been produced in Ghana which looks old trade beads, There has been similarities of beads worldwide as artisans tends to copy old design glass beads and come out with their own styles. Details would be discussed in Chapter Four.

The next chapter presents the methodology used in conducting the research. It was basically a qualitative research based on case studies of five towns known for glass bead making in Ghana.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter entails the research methods used for the study regarding the comparative study of glass beads produced among the Asante and Krobo of Ghana. This section covers the research approach, population of study, the sample and sampling techniques adopted, the instrument used for data collection, data collection procedures and the data analysis plan.

These methods assisted the researcher in achieving the objectives thereby answering the research questions.

3.1 Research Approach

Qualitative research approach was used to answer the research problem which involves case study. Qualitative research focuses on understanding and meaning through verbal narratives and observations rather than numbers. The concept of data collection and analysis of non-numerical data such as text, video, or audio to understand concepts, opinions or experiences is known as Qualitative research. In-depth insights can be gathered into a problem to generate new ideas for research, (Bhandari, 2020).

Data collection takes place in a naturally occurring way. It is based on detailed descriptions of people's experiences and perception of testing or improving products. Qualitative research uses techniques, specifically observations and careful recording of events and social interactions or interviews.

Qualitative data collection tools such as interviews and observation were used. The sample involved glass bead producers, traders and users both Asante and Krobo

were used to accumulate significant information for the study. The qualitative helped the researcher to observe users of glass beads.

3.2 Research Design

The research design focused on case studies of five towns in Ghana. A case study involves a detailed study on a subject who may be person(s), place, events, or organisation (McCombes, 2019). It is one of the research designs in qualitative research approach. It is appropriate for describing, comparing, understanding and evaluating aspects of a research problem (McCombes, 2019).

Case studies was adapted because a) it may provide new insights into the subject of glass production in Ghana; b) it may challenge existing assumption in glass bead production in Ghana; c) it will provide an opportunity to propose practical action to resolve a problem; and d) open up new direction for further research into glass bead production. Case study also determines the factors that influence the choice of glass beads. It examines processes that have not thoroughly been researched and deserves extensive investigation. The information obtained in case studies can be useful in subsequent researches.

3.3 Study Area

The study area comprises of Atwima Akropong in the Atwima Nwabiagya District of the Ashanti Region, Kumasi Metropolis, Kumasi Central Market and Somanya, Koforidua Market and Koforidua Metropolis in the Eastern Region of Ghana.

3.3.1 Location and size of the District

The Atwima Nwabiagya District lies approximately on latitude 6° 32'N and 6° 75'N between longitude 1° 45' and 2° 00' West. It is one of the 30 political and

administrative districts in Ashanti Region with Nkawie as its capital. It is situated in the western part of the region and shares common boundaries with Ahafo Ano South and Atwima Mponua Districts to the West, Offinso Municipal to the North, Amansie–West and Atwima Kwanwoma Districts to the South, and Afigya kwabre and Kumasi Metropolis to the East. It covers an estimated area of 294.84 sq km (Atwima Nwabiagya District Assembly, 2020).

Climate and Vegetation

The Atwima Nwabiagya district lies within the wet semi-equatorial zone marked by double maximum rainfall ranging between 185cm per annum. The temperature is fairly uniform ranging between 27 ° C and 31 ° C. The lowest relative humidity is between 83-87 in the morning and 48-67 in the afternoon. The vegetation found in the district is predominantly semi-deciduous forest. There are some forest reserve that have been earmarked for biodiversity conservation in the district. They include the Barekese water works and Owabi Water Works forest reserve which serve as water and shed protection for the Offin and Owabi rivers. Part of the Gyemena forest reserve is located in the district.



Figure 29: Map indicating the Asante study area,

Source: District Assembly, Atwima Nwabiagya.

Geographical Background of Yilo Krobo District.

The Yilo Krobo district is closely between latitude 60 .00' N and 00 .30' N and between longitude 00 .30' and 10 .00' W. It covers an estimated area of 805sq. km. It constitutes 4.2 percent of the eastern region and somanya as capital. Yilo Krobo is predominantly mountainous. On the south-eastern part of the municipality is the

Yilo Krobo Mountains from where it is believed the Yilo people migrated to present area. Yilo Krobo shares boundaries with Lower Manya Krobo District in the North and east, south by Akwapim North District, and on the west by East Akim municipal District and Fantakwa District. The municipality has been divided into seven zonal councils; Somanya, Boti, Klo-Agogo, Nsutapong, Obawale, Oterkpolu and Nkurakan (Yilo Krobo District Assembly, 2020).

Climate and Vegetation

The Yilo Krobo municipality experiences substantial amount of precipitation and lies within the dry equatorial climatic zone. Temperature ranges between a minimum of 24.90 C and a maximum of 29.90 C and has a relative humidity of 60-93 percent characteristic.

The municipality lies within the rain forest and the coastal savannah zone of the country. Palm, ceiba, palm and acacia are among the widespread tree types in the municipal. (Yilo Krobo District Assembly, 2020)



Figure 30: Map indicating Krobo study area,
Source: District Assembly, Yilo Krobo District

3.3 Population for the study

Population is the entire target group that the researcher wants to draw conclusions from. The population for the study, Atwima Akropong was located in the Atwima Nwabiagya district in the Ashanti region and Somanya in the Yilo Krobo district of the Eastern region. The population included producers of glass beads, users of beads, traders of glass beads and youth in Kumasi Metropolis. Even though the two study communities are apart, in the Ashanti and Eastern of Ghana. The choice of the two areas was as result that they are the popularly known bead making areas in Ghana.

3.4 Sample Size

A sample is the specific group where data is collected. The sample size is always less than the total size of the population (Bhandari, 2020). Sample is the subset of the population that is chosen based on its availability of information.

Table 3.1: Sample size

Description of Population	Sample Size
Traditional glass bead producers	4
Users of glass beads	5
Glass bead traders	6
Youth	10
Total	25

Source: fieldwork, 2020.

The sample size chosen for the study was twenty five individuals that form part of the population. Four Traditional glass bead producers were identified from the two towns; Atwima Akropong and Somanya, four traditional glass bead

producers; one from Atwima Akropong and three from Somanya, five users of glass beads, six glass bead traders and ten youth at the Kumasi and Koforidua Metropolis.

3.5 Sampling Technique

Sampling is the method of choosing a section of the population to represent the entire population. Purposive Sampling and Convenient Sampling were used for the study. In purposive sampling, the researcher purposely chooses respondents of interest and is relevant to the research. Those who do not suit the purpose of the study are excluded. This method was very useful especially some of the respondents had the data needed for the study and their inclusion was essential. Convenient Sampling involves choosing the nearest and available individuals to serve as respondents.

3.6 Methods of Data Collection

Primary and secondary data collection methods were used to obtain access to information on the study. Structured, semi-structured interviews and participant observations were used by the researcher as primary source of data. These enabled the researcher to obtain qualitative information that helped to achieve the research questions for this study.

Secondary data was collected from written materials which are relevant for the study. Secondary Sources such as library research conducted for this study has been highly relevant. It has been a source of relevant and related information. Libraries visited by the researcher include the University of Education libraries at both north and south campuses; Winneba, the Kwame Nkrumah University of Science and Technology (KNUST) Library, The Ashanti library at Kumasi Cultural Center. The researcher's visit to the different libraries helped to review topics for the literature and also for the thesis writing. Data was also obtained from the District assembly and Cultural Office at Nkawie and Odumase Krobo of Ghana. The internet also provided

the researcher with relevant information. Other information was also retrieved from newsletters, journals, magazines, speeches and unpublished thesis. They include published and unpublished books, newsletters, articles, journals, internet downloads, and information from District Assemblies. The secondary data largely helped me assess other people's opinion about the research. Secondary data also include documents and recordings that relate to the study.

3.7 Research Instruments

Instruments for data collection for this study were interview and observation. Under the Interview, Structured and Semi-structured interviews were employed. For Observation, Participant observation was used. Data was collected through interaction between the researcher and the interviewee. The purpose of data collection was to obtain information on the perception and factors that inform the choice of glass beads and to analyse the differences and similarities in the production of glass beads among the Asante and Krobo of Ghana.

The purpose of the researcher was made known to the respondents before data was recorded by the use of audio tape recorders. Through participant observation, the researcher had the opportunity to take part in the processes involved in the production of the glass bead in view of observing the similarities and differences in the production at the glass bead making areas.

3.8 Data Collection Procedure

3.8 1 Interview

An interview is a form of conversation between individuals which involves asking questions as the main method of data collection.

It involves the asking of specific questions to respondents for answers in a face to face situation and on phone. It also represent direct attempt by researcher to

obtain reliable information in the form of verbal response. In collecting data for the study, the researcher used structured and semi-structured interviews. In this research, the researcher arranged and conducted several interviews with the traditional glass bead producers, users of glass beads, glass bead traders and youth in Kumasi and Koforidua metropolis. Data were collected through the interviews between the researcher and those interviewed. Face-to face interview was done and in some instance phone call interviews were also conducted. The researcher used a voice recorder for the interviews but it was made known to the respondents before usage. In Ashanti region, most of the samples were illiterates so (Asante Twi) was used in conducting the various interviews and transcribed in the English language. While at Somanya in the Eastern region, the researcher asked the questions in English while a friend, Mr Boateng translated them into the Krobo language. Presenting questions orally is an appropriate means for gathering information from illiterates (Dalen1979). The interviewer remained neutral with no strong emotions attached to the responses and responses were motivated with occasional nodding of head. The willing and readily of people to communicate orally than in writing is an advantage of interview. During the interviews, permission was sought from the interviewees to check whether the recorder was still in operation. This was to cross check accuracy of information. Short notes were also jotted down.

Data gathered from the interviews were manually transcribed and classified by the researcher based on the research questions of the study.

Both Structured and Semi-structured interviews were adopted. Structured interviews were used for the literate youth and bead users to know their perception and factors that inform their choice of Asante and Krobo glass beads. Semi-structured

for instance made it possible to obtain traders views about the type of glass beads customers prefer and the reasons why customers purchase a particular glass beads.

3.8.2 Participant Observation

Observation is carefully planned, systematic and perceptive. Observation separates facts from interpretation. It provided information when the other methods are not effective. The participant observation instrument was employed in order for the researcher to experience the similarities and differences in the production processes. The researcher penned down necessary information regarding the similarities and differences between the production processes. Digital Cameras were used to take pictures of the activities during the production process. The researcher then took part in the production processes to ascertain the similarities and differences between the production of glass beads among the Asante and Krobo.

In participating, the researcher gained much insight on the perception and factors that inform customers' intention to purchase either the Asante or Krobo glass beads. The researcher was positive in order to understand, substantiate and explain events. The researcher went to all areas with a field note dairy in which all the observations were recorded. The researcher also used the digital camera to take photographs of events and activities that throws more light on the objectives. The researcher attended weddings, naming ceremonies, funerals to observe the people. The researcher attended two different traditional marriages at Kumasi, in the Ashanti region and also Koforidua in the Eastern region where both brides used glass beads as an accessory on their kente cloths. People who attended the occasions were of no exception.

3.9 Ensuring Trustworthiness

Trustworthiness of the data gathered was ensured, going by the principles of credibility, transferability, dependability and conformability as suggested by Guba and outlined by (Shenton, 2004) with explanations below. These principles were employed alongside other strategies, to ensure the quality of this particular study.

Credibility. The researcher made sure that the recording of the phenomena studied was well done. The specific procedures employed in the research, such as the line of questioning followed in data collection and the methods of data analysis, were based on what had been done in other related studies by other researchers.

The researcher used more than one sampling techniques. There was purposive sampling (interview) although the interview involved the use of convenience sampling; this was to help eliminate research bias in the selection of participants. This ensured that the people selected constitute a representative sample of the larger group.

Participation of the participants in the interviews was strictly voluntary and their privacy and confidentiality were strongly maintained at all time. Others were iterative (probing) questions, a negative case analysis, and review of previous research findings.

Transferability. The researcher ensured that the results of this study can be applied to other situations if necessary. Thus, sufficient contextual information about the population of interest is provided to enable the reader to know the people concerned by the research.

The phenomenon studied has been well-described to allow readers to have a good understanding of it, thus allowing them to compare the instances of the phenomenon described in the research report with those they have seen emerge in their situations.

In addition, this information is specified: the number of people who participated in the study and where and they graduated, the limits of the research, the number of participants, similar results would be obtained.

The researcher ensured that the study could be understood in the context of the particular characteristics of the similar or population of interest.

Dependability. In addressing the issue of dependability, the research was conducted in such a way that if the work was repeated, in the same context, with the same methods and with the same participants, similar results would be obtained.

The researcher used overlapping methods, in this regard qualitative approaches such as observation and interview. The design of the research and its implementation were explained in this study; as well as the operational details of the data collection and what exactly was done in the field. The researcher used structured, semi-structured interview and participant observation in this study. These instruments were used to ensure that all data was captured as much as possible. Dependability in this study was as important to trustworthiness because it established the research study's findings as consistent and dependable. Researchers aim to verify that their findings are consistent with the raw data they collected.

As indicated, qualitative method was employed to gather data to ensure its dependability and trustworthiness.

Confirmability. To ensure that research questions, reliable and well-designed research instruments were used. There was no bias in their administration since the researcher gave no clues and did not ask misleading or leading questions.

Triangulation helped to promote such confirmability as researchers' bias was also minimized. Triangulation involves the use of a number of tools to gather data. The study used observation and interviews to collect data. The researcher attempted to

do the focus-groups but this was not possible as a result of maintaining social distancing issues in Ghana during the Covid 19 season when data was being collected. The observation and interviews gave a trustworthy data because the interviews confirmed the responses from the interviewees. The beliefs underlying the decisions made and the methods adopted have been acknowledged in this research report (Shenton, 2004).

3.10 Ethical Considerations

Ethical issues are paramount because it ensures that, there is no infringement on respondents' rights and privacy" (Creswell, 2014). Ethical concerns become more important in qualitative research when they involve individuals. In this case, special attention is paid. A *Letter of Introduction* was shown to the would-be participants to disclose the researcher's identity and nature of the study to be conducted. Next, consent of respondents was sought to ensure that they had given their consent. Respondents were not coerced to answer or respond to questions. They were asked permission and when their informed consent was given, after signing *Informed Consent Forms*, they were made to answer the interview questions. They were asked permission and when their informed consent was given, after signing *Informed Consent Forms*, they were made to interviews that were administered. Their names and key elements were kept anonymous to ensure confidentiality and honest. Thus, *pseudonyms* were used instead of the actual names.

Sometimes, it can be difficult to completely avoid deception in the event that a full knowledge of a situation is required. Sometimes, respondents are required to sign an undertaking in order to formalize their consent regarding the response to a study. This was done through consent from respondents. Respondents voluntarily took part of the research; they were not forced.

3.11 Pilot Testing

According to Saunders et al (2007), validity is concerned with whether the findings are really about what appeared to be about. A sample of the population was used for the pilot study purposively. The purpose of the pilot study was to test the reliability and validity of the research instruments. Unstructured interview and non-participant observation were used as the pilot testing instrument for the study. After the pilot testing, the result from data analysis proved that, unstructured interview could not answer the research questions accurately as the interviewees were mostly off the targeted information for the research. The participant observation proves appropriate as it helped the researcher to gain much insight into the study.

3.12 Data Analysis Plan

Data analysis plan for this study was determined by the two main types of data gathered. They were interview and participant observation. Descriptive analysis was used in analysing the differences and similarities of glass beads production among the Ashanti and Krobo. Data were manually transcribed by the researcher based on the objectives and the research question design of the study. The transcribed data were presented in tables for easy readability and placed under the appropriate classifications, interpreted and analysed qualitatively to reflect the research questions of the study. Thematic Analysis of data was employed.

Thematic analysis is a method of analyzing qualitative data. It is usually applied to a set of texts, such as interview transcripts. The researcher closely examines the data to identify common themes – topics, ideas and patterns of meaning that come up repeatedly (Caulfield, 2019).

He identified six steps in thematic analysis;

1. Familiarization. This involve transcribing audio, reading through the text and taking initial notes, and generally looking through the data to get familiar with it.
2. Coding: It involves highlighting sections of the text – usually phrases or sentences – and coming up with shorthand labels or “codes” to describe their content.
3. Generating themes: Identify patterns among them, and start coming up with themes.
4. Reviewing themes: To make sure the themes are useful and accurate
5. Defining and naming themes: List of themes, are named and defined.
6. Writing up: Describing how we collected the data and explaining with examples how the analysis has answered the research questions.

This process was originally developed for psychology research by Virginia Braun and Victoria Clarke as cited by Caulfield, 2019. However, thematic analysis is a flexible method that can be adapted to many different kinds of research.

3.13 Summary

The purpose of this chapter was to describe the research methodology of this study, explain the sample selection, describe the procedure used in designing the instrument and collecting the data, and provide an explanation of the procedures used to analyse the data. In ensuring trustworthiness of this study, the principles of credibility, transferability, dependability and conformability were employed. Pilot testing was done to test the reliability and validity of the research instruments. Data analysis plan employed for this study were thematic and descriptive.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter contains the results of the data obtained from the interview and observation to sort information regarding the differences and similarities in the production of glass beads among the Asante and the Krobo of Ghana. It covers data presentation, analysis, and discussion. The researcher actualized the research questions by analysing consumers' perception on glass beads as products, investigating the factors that inform the choice of the Asante and Krobo glass beads and analyzing the similarities and differences of glass beads production among the Asante and the Krobo.

The data collected was transcribed and analysed thematically based on the research questions. The respondents were made up of traditional glass bead producers, glass bead traders, glass bead users and youth in Kumasi and Koforidua Metropolis. Data that was collected through interviews and observation was transcribed, analysed, interpreted and presented in tables.

The discrepancies in the sample size were as a result that most respondents were unwilling to respond to the research questions during the interview. Again, twenty one respondents which consist of five users of glass beads, six glass bead traders and ten youth were suitable in answering the research questions one and two, whilst the four bead producers in Asante and Krobo best answered research question three in this section.

Research Question 1

4.1 What are customers' perceptions on Asante and Krobo glass beads as products?

4.1 Demographic Characteristics of Respondents

This section presents the results of the demographic characteristics of the respondents. The demographic characteristics presented in this section are gender and age.

4.2 Gender Distribution of Respondents

The respondents were asked to indicate their gender. This question was asked in order to know the various genders of the respondents. The responses given are presented in Table 1 below.

Table 4.1: *Gender Distribution of Respondents*

Gender	Frequency	Percentage
Male	09	43
Female	12	57
Total	21	100

Source: Field Data, 2020

The results of the study as summarized in Table 4.1 shows that majority (57%) of the respondents were female while male accounted for (43%). The result showed that the majority of respondents in this research work were females.

4.2 Age Distribution of Respondents

The respondents were asked to indicate their age.

Table 4.2: *Age Distribution of Respondents*

Age Group	Frequency	Percentage
21-40years	18	72
41-60years	07	28
Total	25	100

Source: Field Data, 2020.

From the findings, 72% were those between the ages of 21-40 that constitute the youth for the study and 28% were those between the ages of 41-60years.

The eighteen youth that constitute the 72% were ten youth for the study, four out of the five users of glass beads, two glass bead producers and two glass bead traders.

Where are these glass beads produced from?

Table 4.3: *Area of Production of glass bead*

Responses	Frequency	Percentage
Ashanti	8	38
Eastern	7	33
Not Sure	6	29
Total	21	100

Source: Field Data, 2020

Eight of the respondents representing 38% including the glass bead traders were affirmative that Asante glass beads were produced from Ashanti region whiles seven respondents representing 33% said Krobo glass beads where produced from the eastern region. Six respondents representing 29% were uncertain whether glass beads

were produced in the Ashanti or Eastern region of Ghana. Majority of the respondents which was made of the youth could not tell whether a particular glass beads were produced from Ashanti or Krobo. But, respondent chose glass beads produced from Krobo unknowingly over the glass beads from the Ashanti. However, two respondents said they were aware glass beads were produced from Ashanti and Eastern parts of Ghana but could not identify where exactly a particular glass bead was from the Eastern or Ashanti region of Ghana.

Which material are the beads made of?

Table 4.4 : *Materials of the Beads*

Material	Frequency	Percentage
Glass	10	48
Clay	7	33
Not Sure	4	19
Total	21	100

Source: Fieldwork (2021).

The respondents were asked to state the materials for the production of the beads. Ten respondents representing 48% said glass is the material for the production of the glass beads. Seven respondents representing 33% said clay is the material for the production of glass beads whilst four respondent representing 19% were uncertain as to which material glass bead was made of.

Can customers differentiate between glass beads produced from Ashanti or Eastern?

Table 4.5: *Differences in Glass Beads*

Responses	Glass beads	Percentage
Yes	10	48
No	11	52
Total	21	100

Source: Field Data, 2020

From the responses, ten of the respondents including all the six bead traders representing 48% were able to differentiate between the glass beads produced from either Ashanti or Eastern whilst eleven of the respondents including eight youth and three users of glass beads representing eleven could not differentiate between glass beads produced by the Asante or Krobo. Five of the respondents which were made up of two users of glass beads and three youth were of the view that, they were aware glass beads were produced from Ashanti and Eastern parts of Ghana but could not differentiate between glass beads produced from Ashanti or Eastern of Ghana.

Why do people use glass beads?

Table 4.6: *Reasons for the Usage of Glass Beads*

Reasons	Frequency	Percentage
Fashion & Beauty	7	34
Sexual Attraction	3	14
Cultural Purposes	8	38
Protection	3	14
Total	21	100

Source: Fieldwork (2021)

The respondents were asked to state the reasons why people use glass beads. The findings revealed that seven respondents including the five users of glass beads

representing 34% said fashion & beauty are reasons why people use glass beads. Three respondents including two bead traders representing 14% said sexual attraction was a reason why people use glass beads. Eight respondents representing 38% were of the view that cultural purposes are reasons why people use glass beads. Three people representing 14% said protection is a reason why people use glass beads. Glass beads often portray the culture of the people. Glass beads were used by the older generation and now the younger generation uses it for fashion; people wear glass beads in combination of African print cloth and sandals (K. Serwaa, personal interview, August, 2020).



Figure 31: beads used as part of fashion
Source: Koforidua, Eastern Region.



Figure 32: Beads used as part of fashion
Source: Kumasi, Ashanti Region.

Beads have been used as part of fashion for different occasions like wedding, parties, birthdays and naming ceremonies. Youth especially, the ladies wear glass beads for celebrating their birthdays as shown in figure 31. Young people wear them as an expression of beauty especially the different colors used in the design of beads compliment the colour of dress worn. Women wear waist beads and are used as an intimate adornment. Waist beads are worn under the cloth where only the husbands are to admire.

From figures 31 and 32, the study identifies that customers' preference to use glass beads are dependent on its usage other than just for the sake of buying. Most people see beads as fetish and would not have anything to do with it though it is use as protective object for some people. Bodom beads are believed to possess some power of protecting the wearer against danger (Fish, 1992).

What are your observations on glass beads?

Table 4.7: *Observations on glass beads*

Responses	Frequency	Percentage
Funeral	2	14
Marriage	6	29
Outdooring	2	10
Puberty rites	11	48
Total	21	100

Source: Field Data, 2020

From the table 4.7, two respondents representing 10% shared their views that glass beads are used for funeral, six respondents representing 29% said glass beads are used for marriage rites, two respondents representing 10% said glass beads are used for outdooring, eleven respondents representing 52% said glass beads are used for the performing of puberty rites. Asante glass beads designs look ancient and this

brings back memories about the “Bragoro” puberty rites celebration. The initiates were adorned beautifully with the glass beads. The initiates were presented with heirlooms of glass beads from elders in the family (A. Gyamfuaa, personal interview, August, 2020).

Bragoro, a puberty rite which was one of the cultural practices by the Asantes that promoted the use of glass beads are currently not practiced and this has hence affected the production of glass beads among the Asante producers whilst Krobo continue to excel mainly because of its dipo puberty rites celebration.

During naming ceremony, newly mothers were adorned with white glass beads to portray a sign of victory and happiness and also during traditional marriages; brides wear glass beads for beautification. Glass beads are sometimes used as a special gift for the rites of passage and this symbolizes respect for the departed during burial. Glass beads also serve as a prestige and glamour when worn to community festivals. Glass beads are also used as commemorative and during historical celebrations to lift the spirit of an occasion, especially when brides use it as an accessory on Kente during the traditional marriage. State functions such as inauguration of presidents are often marked by both Ghanaian and non-Ghanaians wearing glass beads on their wrist and neck. Selecting glass beads for functions has been important component that need to be taken care of.



Figure 33a: Glass beads used for traditional marriage,
Source: Koforidua, Eastern region.



Figures 33b: Glass beads used for traditional marriage,
Source: Kumasi, Ashanti region.

Glass beads used for marriages among the Krobos are mostly yellow and bright. The colours, shapes and arrangement form the beauty of the glass beads. The beads worn during marriage are those which show off the pedigree of the heirloom of the family. It is very common to find the bride and sometimes the groom wearing chest and even waist-length bead necklaces. This goes to confirm a publication by

Sutherland-Addy et al, 2011. A variety of bead necklaces are used as accessories by members attending a weddings and parties. Which of the glass beads sell faster?

Table 4 8: *Glass beads that sell faster*

Glass beads	Frequency	Percentage
Asante glass beads	2	10
Krobo glass beads	8	90
Not Sure	0	0
Total	10	100

Source: Fieldwork (2021)

To determine which glass beads sell faster by the traders and producers, they were of the view that, glass beads produced from Krobo sells faster than that of the Asante glass beads.

Krobo glass beads were highly patronized obtaining a percentage of 90 whilst Asante glass beads has low patronage representing a percentage of 10. None expressed feelings of uncertainty or not sure. Only one glass bead seller sells Asante glass beads in addition to the Krobo beads. According to her, Mr Gyamfi who is the sole producer of Asante's glass beads also comes to the Kumasi central market every Mondays to sell his products and afterwards gives the remaining beads to her for sale. She added that, Asante beads are mostly used in addition to funerary objects.

Do the prices of glass beads affect marketing?

Table 4. 9: *Prices of Glass Beads*

Responses	Glass bead traders	Percentage
	Frequency	
Yes	02	33
No	04	67
Total	06	100

Source: Field Data, 2020

To determine whether the prices of glass beads affect marketing, out of the six glass bead traders, two representing 33% responded that the prices of glass beads affect marketing whilst four respondents representing 67% said the price of glass beads does not affect marketing. According to the glass bead traders, customers are ready to buy attractive and bright glass beads irrespective of the price. A glass bead trader, Madam Gyamfuaa at ‘borla’ in the Kumasi central market, even though the price of Krobo beads differ from trader to trader but customers still patronize because of its attractiveness. She again said, since it is mostly used in combination with Kente during festive occasions, customer purchase regardless of the price. This shows that customers’ intention to purchase glass beads is based on major benefits they derive but not just buying for buying sake as there is value for the money they spend.



Figures 34: Glass beads traders at the Kumasi Central Market,
Source: Kumasi, Ashanti Region.

Table 4.10: *Ethnic group that patronize Krobo or Asante glass beads*

Customers	Frequency	Percentage
Asante	4	16
Krobo	12	48
Ewe	2	08
Ga/Adangbe	3	12
Others	4	16
Total	25	100

Source: Fieldwork (2021)

Respondents made up of glass bead producers, glass bead users, youth and glass bead traders were asked during an interview about ethnicity of people who usually patronize glass beads. All the respondents totaling the sample size of twenty five answered this question. Out of the twenty five, four respondents representing 16% said Asante, twelve respondents representing 48% said Krobo, two respondents representing 8% said Ewe, three respondents representing 12% said Ga/Adangbe whilst four of the respondents including the youth said other ethnic groups represented 16% of the total also patronize glass beads. A glass bead trader said majority of the people who patronize glass beads were the Krobo, the reason behind Krobo bead producers producing in larger quantities for sale. She again said they were highly patronized because of their popular culture of dipo rites celebration, among others. Though majority of the customers are Krobo but, most ethnic groups from across the country express interest or desire in glass beads and this could be one of the factors for development and innovations in the glass bead industry.

Can you identify any innovations or improvement on glass beads produced by the Asante or Krobo?

Table 4.11: *Innovations or Improvement on glass beads*

Responses	Asante Frequency	Krobo Frequency	Total
Yes	03	16	19
No	16	03	19
Not sure	00	00	00

Source: Fieldwork (2020).

Data collected to ascertain if respondents could identify any innovations or improvements made by the producers to enhance aesthetic qualities of the glass beads. From table 4.11, Krobo glass bead producers engaged in a very vibrant innovation. Sixteen respondents were affirmative that Krobo glass bead producers have made some innovations on their products whilst three respondents representing 16% said there were some innovations on Asante glass beads. Innovations serve as one of the factors that enhance the aesthetics as well as sustaining the glass bead business. During the interview on the innovations, it was uncovered that, the changing trend of customer taste and satisfaction were the driving force for improvement and innovations on glass beads.

Customers mostly bring a wide variety of choices of designs and colours to commission glass bead producers to produce for them. The innovations cut across all aspects of life; from culture, fashion, social to educational, etc. The glass bead producers expressed that, as much as finding it very important to improve upon the designs, the philosophical and the cultural significance handed over to them are not taken for granted since these concepts are the most important factors that make the glass beads very authentic and traditional.

Further probing uncovered that, as customers demand for new innovations, so it reflects on the pockets of the producers. It increases sales and maximizes profits. It also improves on the techniques and production process. Innovations increase production and hence increase sales and profit of glass beads. This is an indication that, as far as productivity and sale of the glass beads is concerned, innovation which leads to improvements on aesthetic qualities plays a major role in enticing customers and has helped the Krobo glass bead producers to improve their techniques and production which has given them a competitive advantage over their competitors.

Which major customers patronize glass beads?

Table: 4.12 *Major customers who patronize glass beads*

Major Customers	Frequency	Percentage
Tourist	2	33
Driven customers	4	67
Total	6	100

Source: Fieldwork (2021)

From the glass bead traders from table 4.12, major customers that patronize glass beads are tourists and driven customers. Tourists were two representing 33% whilst driven customers were four representing 67%. Glass beads are remarkable and have over the years served as exports capable of generating foreign exchange into the country. Driven customers were people who buy glass beads based on emotions. Glass beads promote tourism mainly because of the attraction of its design patterns, the bright colours, textures and other visual elements that create both local and global aesthetic appeal.

Traders at both the Kumasi central market and Koforidua market emphasized that, all the old designs of glass beads among the Krobo was fading due to demands and the concept to produce for beauty for those who admire glass beads and can afford. Due to this, currently, they were embarking on new designs or innovations which were partially influenced by customers.

It was also gathered that most of the customers of recycled glass beads particularly tourists have preference for old beads; a preference probably, powered by the perception that they are authentic and more durable than recent versions of glass beads. This is a contributing factor to the repetition of old designs without exploring new techniques or designs. The lack of variety in the production technique is also a contributing factor to the decline of the Ashanti glass bead industry. Customers have seen similar glass beads produced repeatedly that they have become bored with the industry as stated by (Dwumfour, 2009).

Are glass beads still relevant in the Contemporary world?

Table 4.13: *Responses on Whether Glass beads are still Relevant in the Contemporary world.*

Responses	Ashanti Frequency	Eastern Frequency
Yes	02	16
No	16	02
Total	18	18

Source: Field Data, 2020

The researcher sought to find out if glass beads are still relevant in contemporary world. The results were illustrated in the table 4.13. Data collected revealed that sixteen out of the total respondents representing 89% agreed that Krobo glass beads are still relevant and two representing 11% said Asante's glass beads are relevant. The result indicate that glass beads produced by the people of Krobo play a major role in this contemporary world whilst glass beads produced from Ashanti was on the decline (Aidoo & Addai, 2017).

Are you satisfied with the glass beads produced by Asante or Krobo bead producers?

Table 4.14: *Glass beads satisfaction*

Response	Ashanti Frequency	Krobo Frequency
Very satisfied	0	19
Satisfied	1	2
Dissatisfied	20	0
Total	21	21

Source: Fieldwork (2020)

Comparing the degree of satisfaction to that of dissatisfaction among the Ashanti and Krobo, about 90% of the customers who patronized preferred the krobo glass beads have little complaints about the beads; while the rest about 10% constitute to customers who had problems with Ashanti glass beads hence dissatisfaction. Since the rate of satisfaction far outweighs dissatisfaction, it appears Krobo glass beads meet the expectations of their customers and it is a credit Krobo glass bead producers and traders because the probability for repurchase, market share expansion and revenue or profit maximization is high. Dissatisfied customers are the customers who in one way or the other were displeased with the Ashanti glass beads they bought. In

other words their expectations for purchasing Asante glass beads might not have been met.

The researcher also drew a conclusion that since the percentage of customers who were satisfied with the Krobo glass beads surpasses those dissatisfied, the rate of recommendation of Krobo glass beads would be very high as customers would be very pleased with the beads; hence word of mouth advertisement is achieved. The researcher concluded further that, satisfaction of customers would surely result in repurchase, hence maximization of profits on the part of the Krobo glass bead producers and traders. Most respondents were satisfied with glass beads produced by the Krobo and recommend to friends and purchase anytime the need arises as compared to glass beads produced by the Asante producer.

Research Question 2

4.2 What factors inform the choice of the Asante and Krobo glass beads?

Which factors influences you to select glass beads produced from Ashanti or Eastern?

Table 4.15: *Bright and Attractive colours*

Factors	Ashanti Frequency	Eastern Frequency
Bright and Attractive Colours	21	0
Total	21	0

Source: Field Data, 2020

From the interviews, twenty one of the respondents representing 100% said Krobo glass beads have bright and attractive colours. Bright colours of glass beads include red, yellow, orange, yellowish green. Cool colours are blue, green, leafy green, indigo and brown. Other colours of the glass beads include white, gold and black. None representing 0% said Asante glass beads have bright and attractive colour. The study results were depicted in table 4.15. Customers were careful when it comes to the selection and choices of colours for particular occasion or a ceremony. Bright and colourful glass beads are used for festive occasions and all other occasions. For funerals, a combination of colours such as red and black or black and brown are used. Beauty of glass beads is cherished based on the colour scheme. Therefore, one of the factors that customers look out for in buying glass beads is colour combinations. For example, according to some of the respondents, colours like dull yellow, black, in combination could make glass beads very ugly while a combination of orange and yellow could result in a beautiful cloth. This glass beads combination creates beautiful effect according to them.

Table 4.16: *Shinny surface of glass beads*

Factors	Asante Frequency	Krobo Frequency
Shinny surface of glass beads	0	21
Total	0	21

Source: Field Data, 2020

From the interviews, twenty one of the respondents representing 100% said Krobo glass beads have shining surface. None representing 0% said Asante's glass beads have sheen effect. The study results were depicted in table 4.16. According to

the respondents, the shiny surface of the beads can be attributed to the fact that vegetable oil has been applied on the glass beads.

Table: 4.17: *Design of glass beads*

Factors	Asante Frequency	Krobo Frequency	Total
Modern or innovative design	0	21	21
Ancient design	21	0	21
Both modern and Ancient design	03	18	21

Source: Field Data, 2020

To distinguish the choice between modern and ancient designs that informs the selection of a glass beads between Asante and Krobo, twenty one of the respondents representing 100% claim the Krobo glass beads has modern or innovative designs than the Asante glass beads which has 21 respondents representing 0% ancient design. Eighteen of the respondents representing 86% said Krobo glass beads have both modern and ancient design whilst three representing 14% have both modern and ancient design from the Ashanti. Facts gathered from the field indicate that, the glass bead producers produce complex array of design glass beads. They serve as channels for identification and expression of our culture. Krobo glass beads have different designs and have improved with time. Their designs produced are able to compete with other foreign beads in the world market but the Asante glass bead producers still produce same designs with no or little improvement (Sandra, S.; Kyemfi, A. personal interview, 2020).



Figure 35: Ancient Glass beads produced by the Asante's
Source: Asuofia Asamang, Ashanti Region.

Currently however, old beads from the Ashanti region are found in the Manhyia palace and the Kumasi Center for National Culture. The Krobo glass bead producers are dynamic and have several ways to manipulate the designs to give them a competitive advantage.

Table 4.18: *Arrangement of elements of design in glass beads* (The use of Shape in glass beads)

Factors	Asante Frequency	Krobo Frequency	Total
Round	09	12	21
Spherical	6	15	21
Oval	10	11	21
Square	0	21	21

Source: Field Data, 2020

The findings revealed that nine respondents representing 43% said glass beads produced from Ashanti were round whilst 12 respondents representing 57% said glass beads produced from Eastern were round. Six respondents representing 29% said Asante glass beads have spherical shape and fifteen respondents representing 71% said Krobo glass beads were spherical in shape. Ten respondents representing 48% and eleven respondents representing 52% said glass beads produced by the Ashanti and Eastern were oval in shape. None representing 0% said glass beads from Ashanti were square in shape whilst twenty one respondents representing 100% said Krobo glass beads were square in shape. Glass beads comes in different sizes; small, big and large. The shapes of glass beads vary widely from cylindrical, triangular, square, star, heart, oval, coin. Among the varieties of shapes, the Ashanti currently produce the oval and round shapes while the Eastern producers produce majority of all the shapes listed. Each of these diverse shapes radiates its own unique characteristic and still stands out aesthetically. Shape of the round beads lay together and are pleasing to the eye. Round shape of beads are strung on wire to create necklaces, and bracelets. Rounds beads can be made of glass, stone, ceramic, metal, or wood. Square beads can be to enhance a necklace design as a spacer however a necklace can be strung with just square beads. The necklaces with square beads are usually used in rosary necklaces, prayer necklaces, and wooden or shell ones are made for beachwear.



Figures 36: Shapes of glass beads.
Source: Somanya, Eastern Region.



Figures 37: Shapes of glass bead.
Source: Atwima Akropong, Ashanti Region.

Table 4.19: *Arrangement of elements of design in glass beads* (Texture in glass beads)

Factors	Ashanti	Eastern
	Frequency	Frequency
Roughness	20	01
Smoothness	01	20
Total		

Source: Field Data, 2020

From the table 4.19, twenty respondents representing 95% said Ashanti glass beads have roughness of surface whilst Eastern glass beads have one respondent representing 5% said it has roughness of surface. Twenty respondents representing 95% said Eastern(krobo) glass beads have smoothness of surface whilst one respondent representing 5% said Ashanti glass bead has smoothness of surface.

Table 4 20: *Arrangement of elements of design in glass beads* (The use of lines and dots in glass beads)

Factors	Asante	Krobo	Total
	Frequency	Frequency	
The use of lines and dots	05	14	19

Source: Field Data, 2020

Table 4.20, reveals that the use of lines and dots in glass beads glass beads produced in the Ashanti region were five respondents representing 26% as compared to glass beads produced by the Krobo in the Eastern region has fourteen representing 74% talking about the use of lines in the glass beads.

Table 4. 21: *High quality of glass beads*

Factors	Asante	Krobo	Total
	Frequency	Frequency	
Durability	09	12	21
Weight of glass beads	07	14	21
Total			

Source: Field Data, 2020

The table 4.21 demonstrates the fact that, out of the 21 who responded to the interview, 09 respondents representing 43% said Asante's glass beads were durable as compared to the Krobo glass beads which had twelve respondents representing 57%. The largest percentage of the respondents; constituting sixty seven depicted that Krobo glass beads were heavier as against the weight of the Asante glass bead representing 33% of seven respondents. The 'bodom' glass beads of the Krobo which are mostly used as pendants are usually thick and heavier and have lot of weight.

Table 4.22: *Proper finishing of glass beads*

Factors	Ashanti	Eastern
	Frequency	Frequency
Proper finishing of glass beads	0	21
Total	0	21

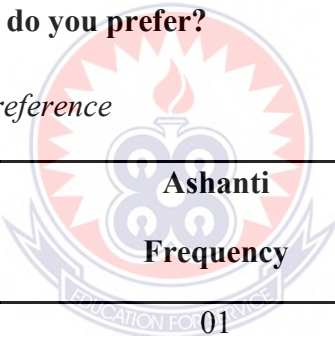
Source: Field Data, 2020

Table 4.22 expresses customers' view on the proper finishing of glass beads produced by the Asante and Krobo. Out of 21 people interviewed, none said anything in respect to Krobo beads meaning they were satisfied with their beads hence no need for further recommendations, but all said Asante glass bead producers were to do proper finishing of the glass beads. This will enable a lot of people to also purchase glass beads produced by the Asantes like the Krobo.

The decisions that affirms a customer's choice of a product depends on the design of the product, Krippendorf (1989). This concept revealed the choice of glass beads of the Krobo against the Asante's. The Krobo beads product design (e.g., color, shape and texture) influence the demand for this product.

Which of the glass beads do you prefer?

Table 4.23: *Customer's Preference*



Responses	Ashanti Frequency	Eastern Frequency
Yes	01	14
No	14	01
Total	15	15

Source: Fieldwork (2020).

To determine whether customers prefer Krobo glass beads or Asante's glass beads, table 4.23, revealed that customers prefer Krobo glass beads as 95% compared to 0.5%. Glass beads produced from Krobo were highly preferred and patronized as it has good aesthetics which pleases customers' wishes and expectation.

Research Question 3

4.3 What are the similarities and differences of glass beads production among the Asante and Krobo?

Bead making is labour intensive demanding process and since many beads are handmade, it leads to difference in the appearance of individual beads even within a single strand (History of African beads, 2012).

To ascertain the similarities involved in the production of glass beads among the Asante and Krobo, the researcher observed the production processes at Ashanti and Eastern respectively. Both Asante and Krobo glass bead producers produce Recycled Powder glass Beads.

The Similarities in the Production of Glass beads among the Asante and Krobo.

Recycled glass in the form of old glass beads, broken bottles and currently louver blades are used.



Figure 38: Louvre blades, Odumase
Source: Odumase, Eastern Region.



Figure 39: Recycled glass bottle
Source: Atwima Akropong, Ashanti region.

These glasses are pounded in a metal mortar/pan and metal pestle into fine powder.



Figure 40: Pounding recycled glass

Source: Somanya, Eastern Region.



Figure 41: Pounding louvres blades

Source: Somanya, Eastern Region.

These glasses are pounded in a metal mortar with a metal pestle into a powder.



Figure 42a: Metal Mortar, Darbaa

Source: Darbaa, Ashanti Region.



Figure 42b: Metal Pestle

Source: Darbaa, Ashanti Region

After pounding, the glass powder is sieved into very fine powder.



Figure 43: Powdered glass

Source: Atwima Akropong



Figure 44: Powdered glass

Source: Somanya, Eastern Region.



Figure 45: Sieving Pounded glass

Source: Somanya, Eastern Region.

The glass powder is poured into clay molds. In preparing mold, clay is modeled into a disk like shape into a solid consistency to prevent breaking. Holes are created on top of the molds with shaping tools and stamps of different shapes such as cylindrical, round, rectangular, star, and most geometric shapes. The hole created in the mold determines the size and shape of the finished bead. Larger beads like bodom that are used as pendant has a single big hole in a mold. The mold is fired from 800°C to 1000°C.



Figure 46: Clay molds, Darbaa
Source: Atwima Akropong. Ashanti Region



Figure 47: Clay molds
Source: Odumase, Eastern Region

The clay molds can be used and re used many times, even when broken.



Figure 48a: Clay,
Source: Somanya, Eastern Region



Figure 48b: Modeling clay
Source: Somanya, Eastern Region



Figure 49a: Modelling clay to mold

Source: Somanya, Eastern Region



Figure 49b: Shaping the mold

Source: Somanya, Eastern Region



Figure 50: Shaping tools

Source: Atwima Akropong, Ashanti Region.



Figure 51: Shaping tools

Source: Somanya, Eastern Region



Figure 52: Clay molds

Source: Atwima Akropong, Ashanti Region.



Figure 53a: Clay molds

Source: Somanya, Eastern Region



Figure 53b: Clay molds, Somanya.

Source: Somanya, Eastern Region.

Both Ashanti and Krobo use molds

Cassava stems are placed in the centers of the molds and cut to the size of the mold. It burns up during firing, leaving a hole in the finished bead.



Figure 54: Cassava stems,
Source: Atwima Akropong, Ashanti Region.



Figure 55: Cassava stems
Source: Somanya, Eastern Region.



Figure 56: Cutting cassava stems
Source: Atwima Akropong, Ashanti Region.



Figure 57: Cutting cassava stems
Source: Somanya, Eastern Region.

The glass powder is filled on a loader and poured into the molds. For a coloured bead, the glass powder and ceramic colouring oxide are mixed and poured into the mold. The glass powder can also be layered with the colouring oxides for a desired colorful effect, or kept plain. Brown pigments are also gotten from iron rods in the kiln. The iron rods after intense heating produces this colour, it is scrapped off with a metal spoon.



Figure 58: Mixing Colouring Oxide with powdered glass

Source: Somanya, Eastern Region.

The glass powder is poured into molds made of clay.



Figure 59: Filling molds

Source: Atwima Akropong, Ashanti Region.



Figure 60: Filling molds

Source: Somanya, Eastern Region.

The filled molds are then placed in the fire wood kiln. The kiln is constructed from local red clay and termite mound clay and supported with used car axels. It is covered with a liquid clay mixture to fill in any cracks before firing. The kiln is heated using firewood which burns at hot temperature.

The production of glass beads involve firewood



Figure 61: Purchased firewood

Source: Atwima Akropong, Ashanti Region.



Figure 62: Purchased firewood

Source: Somanya, Eastern Region.

The heat of the fire melts the powdered glass into a bead. The glass beads are usually fired for 30 minutes for smaller beads or more depending on the size of the bead and heat. The glass beads are removed from the kiln about 15 minutes to turn to the other side of the bead. The cassava stem burns out during firing and form the hole in the glass bead but a bodkin is use to perforate hole in the bead in case the hole is sealed. Once the beads are removed from the kiln, they are allowed to cool but larger beads they are made to cool in a hole created by the bead producer in the ground at Somanya.

All glass bead production use kiln for firing



Figure 63: Firewood kiln

Source: Atwima Akropong, Ashanti Region



Figure 64: Firewood kiln

Source: Odumase, Eastern Region.



Figure 65: Firing glass beads, Somanya

Source: Somanya, Eastern Region.



Figure 66: Metal rod for removing fired glass beads

Source: Atwima Akropong, Ashanti Region

Both Ashanti and Krobo uses metal rod in removing fired glass beads.



Figure 67: Metal rod for removing fired glass beads

Source: Somanya, Eastern Region.



Figure 68: Polishing Stone Somanya

Source: Somanya, Eastern Region.



Figure 69: Washing glass beads on Polishing Stone

Source: Atwima Akropong, Ashanti Region.

They were then washed using sand and water. At Atwima Akropong, unpolished glass beads were made smoother by using a polishing machine.

Glass beads were done strung on raffia by the Atwima Akropong glass bead producer.

At Somanya in the Eastern Region, glass beads were finally finished with vegetable oil to give its shiny appearance. It is finally strung on an elastic or nylon thread whilst the Ashanti still strung on raffia thread.



Figure 70: Washing glass beads

Source: Atwima Akropong, Ashanti Region.



Figure 71: Washing glass beads

Source: Somanya, Eastern Region.



Figure 72: Stringing glass beads.

Source: Atwima Akropong, Ashanti Region



Figure 73: Stringing glass beads

Source: Somanya, Eastern Region

Both glass bead centers work in open air shelters



Figure 74: Glass bead center in open air shelter

Source: Atwima Akropong, Ashanti Region.



Figure 75: Glass bead center in open air shelter.

Source: Somanya, Eastern Ashanti Region.

However for translucent beads among the Krobo, transparent glass is broken into small pieces and filled in the molds without pounding into a fine powder. It is then fired in a kiln.

Holes were perforated with bodkin in the center of the bead right from the oven before they become cold and hardened. The beads were then removed from the molds about two hours after being taken out of the kiln to prevent breaking of the beads when hot.



Figure 76: Transparent glass beads with rubber beads for sale.

Source: Odumase, Eastern Region.



Figure 77: Translucent glass bead

Source: Odumase, Eastern Region.

The Painted beads start with the same process like the powder glass but they are hand painted. The powdered glass beads are removed from the kiln after 30 minutes, and cooled. The fired glass beads are put on a stick made from wood or

metal. The paintings are done with a paste made up of powdered glass with colouring oxide and water. Varieties of designs are drawn on the bead with a pointy wooden stick. Some designs are made to resemble antique recycled glass beads.



Figure 78: Designing glass beads
Source: Odumase, Eastern Region.

The sticks of beads are dried and are placed in a bigger mold to be fired in the kiln in the second time to fix the paintings made on the glass beads. A glass producer at Odumase said paintings could be done for third time for firing depending on a particular design one wants to achieve but at a very low temperature. Lemon was also used as a finishing agent to fix the design on the glass bead, he added. From the kiln, the glass beads were grinded on a rough stone with water, to remove any unwanted edges. Finally during finishing the beads are polished with some vaseline and cooking oil for a shiny and glossy effect.



Figure 79a: Glass beads for sale



Figure 79b: Glass beads for sale

Source: Koforidua market, Eastern Region **Source: Koforidua market, Eastern**



Figure 80a



Figure 80b

Figures 80a, b. Variety of designs of Painted beads

Source: Odumase, Eastern Region



Figure 81: Designs in Powdered glass beads, Atwima Akropong.
Source: photograph by researcher



Figure 82: Designs in Powdered glass beads, Somanya
Source: Photograph by researcher

The processes and tools and materials in powdered glass beads production were the same among the Ashanti and the Krobo. Both uses the same techniques and designs in producing the powdered glass beads.

Table 4.24: Differences in glass beads production and design

Asante Glass bead Production Process	Krobo Glass bead Production Process
Produces only fused recycled powder glass beads with no or little innovation	Produces several glass beads types like the painted and translucent in addition to the recycled powder glass with lot of innovations
Less colouring oxide are mostly added to the glass beads	More colouring oxide are added to the glass beads
Glass beads produced are mostly for the waist	Glass beads produced are mostly used as necklaces, earrings, for the wrist and the waist
Produces glass beads used for funerary objects	Produces glass beads for all occasions or ceremonies.
Recycled glass beads are mostly fired once.	For painted and complex designs among the Krobo, glass beads are fired two or three times after designing
Still used to the old method of producing glass beads	Employs machines in producing the glass beads



Figure 83: Glass bead, Atwima Akropong
Source: Photograph by researcher.

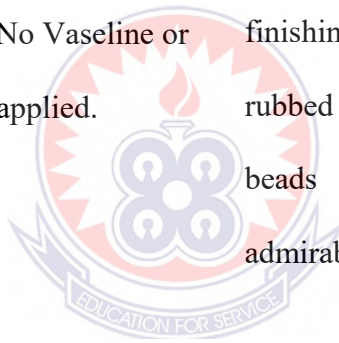


Figure 84 Glass bead, Somanya
Source: Photograph by researcher.

Table 4. 25: Differences in Glass Beads as Products

ASHANTI	KROBO
<ul style="list-style-type: none"> ▪ The glass beads are mostly small and almost spherical. The bead makers stated that people prefer the spherical shapes to other shapes 	<p>Has variety of shapes like the square, round, oval from which customers can select preferred choices</p>
<ul style="list-style-type: none"> • The Ashanti glass beads appear rough with whitish powder at the ends of the perforating holes. 	<p>The Krobo glass beads have a smooth and greasy finishing.</p>
<ul style="list-style-type: none"> • The recycled glass are opaque 	<p>Some of the glass beads like the translucent appear transparent</p>
<ul style="list-style-type: none"> • The Ashanti glass beads are relatively smaller in size. 	<p>The Krobo glass beads though have smaller sized beads but generally they are broader and longer than most Ashanti beads especially the ‘bodom’ glass bead.</p>
<ul style="list-style-type: none"> • The perforations at the ends are about 1mm in diameter. 	<p>The perforation is usually large and more than 3 mm in diameter.</p>
<ul style="list-style-type: none"> • The colours in the glass beads were usually dull and darker with the repetitive design. 	<p>The colours are mostly brighter with simple and complex abstract designs.</p>

-
- | | |
|---|---|
| <ul style="list-style-type: none">• The Ashanti produces virtually almost the same repetitive design. | <p>The Krobo produce more elaborate and complex designs</p> |
| <ul style="list-style-type: none">• The glass beads among the Ashanti have low colour intensity. The colours are mostly white glass, dull yellow and green. | <p>Krobo beads tend to have greater colour intensity. Krobo beads are mostly bright in colour and have different shades of red, yellow, blue orange and green.</p> |
| <ul style="list-style-type: none">• Uses raffia for stringing | <p>Uses nylon thread for stringing</p> |
| <ul style="list-style-type: none">• Appears to have poor finishing with sharp edges. No Vaseline or vegetable oils are applied. | <p>Appears to have a smooth and shiny finishing. Vaseline and vegetable oil is rubbed on the surface of the finished beads until it becomes glossy and admirable.</p> |
| <ul style="list-style-type: none">• The glass beads were designed for intimate adornment for the waist and funerals. | <p>The glass beads were designed for several occasions such as engagement ceremony, puberty rites, funeral, among others</p> |



Source: Fieldwork, 2020.

4.4 Cultural Implications on the production of glass beads among the Asantes and Krobos.

Throughout history, art and culture have remained two inseparable words (Appiah, 1991). Culture is the way of life of people of a particular group. In celebrating the “bragoro” puberty rites, the initiates are adorned with beautiful and colourful beads which portray the aesthetic element of the traditional ceremony.

The growing trends of globalisation and modernisation have done more harm than good to traditional African heritage and values, as cultural awareness continues to wane (Aidoo & Addai, 2017). The production of glass beads provide employment to the people at the communities where they are produced. The adornment of beads plays important role in the development of social, religious and cultural setting of the traditional African. Asihene 1987 posits that, there is not a single cultural performance that ends without the use of an artwork.

The use of glass beads in Ghana for cultural purposes could be traced as far back the earliest times. Despite its long existence, glass bead industry in the Ashanti Region has seen no growth and development since the practice of certain rites are not been performed or performance reduced. In the performance of rites, beads are used extensively. As such, the abolishing of these rites invariably affects the demand for bead. This then affect beads production. An example of low performance of the rites was ‘bragoro’ among the Ashanti. To some extent, the material cultural development of the nation is affected as far as those rites are concerned. However, the Krobo has a vibrant culture of the performing of the dipo rites. They are deeply rooted in the rites and consequently, people still patronize it. The rites are being performed though it is modified as a result of agent of globalization, not as traditional as existed decades ago but they still practice it using the beads.

4.5 Educational implication on the production of glass beads among the Asantes and Krobos.

Glass bead production is recognized as an integral part of the people's culture. Glass beads is well defined in the educational curriculum as it is been done at the first and second cycle, and tertiary level of education in Ghana. Glass bead making taught in schools offers opportunity to students to establish small industries so as not become a burden to the society and Ghana as whole. Activities in glass bead making in school helps to explore the creative potentials in students.

The laws on Apprenticeship, Vocational and Technical education are to ginger the youth to take interest in learning a trade including glass bead making. Act 351 of 1970 legalised the establishment of the National Vocational Institute with a vision to improve upon capacity development, skill training and re-training and to set standards to control quality of skill training at the craft and secretarial levels. It has a mission to co-ordinate nationwide aspects of vocational training including apprenticeship. There should be periodic seminars, courses, exhibition and trade shows for the people in these communities to arouse their interest.

The local glass bead producers are encouraged to join the cooperative groups. Beads producers, designers and traders should come together to form Bead Manufacturing Associations such as the Krobo bead Association where there are periodic workshops and seminars. Glass beads producers in these co-operative groups are educated on the various advanced technology in the production processes and as a matter of fact, come out with designs that make the industry looks attractive to encourage people to join.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The chapter consists of the summary of the entire research from the topic, statement of the problem, research questions, method of data collection, population, sample size and sampling techniques of respondents, as well as the main findings of the study. This research seeks to compare the similarities and differences in the glass beads produced among the Asante and Krobo. The study investigated on the topic: Comparative study of glass beads produced among the Asante and Krobo of Ghana. The study was conducted in two main areas; Ashanti and Eastern region of Ghana where glass beads were popular. Twenty five respondents were used for the study which includes glass bead producers, users of glass beads, traders of glass beads and the youth. Purposive and Convenient sampling techniques were used for the study. Data that was collected through interviews and observation was transcribed, analysed, interpreted and presented in tables. Conclusions and recommendations were based on the researchers' field experience and thematic analysis of data collected from respondents.

The following were the research questions formulated to guide the study;

1. What are consumers' perceptions on Asante and Krobo glass beads as products?
2. What factors inform the choice of the Asante and Krobo glass beads?
3. What are the similarities and differences of glass beads production among the Asante and Krobo?

The major findings to substantiate the research questions are as follows;

A major finding that can be drawn from research question one based on thematic analysis; through interviews with the respondents; customers' perception on glass beads as products,

Most of the customers of recycled glass beads particularly tourists have a preference for old beads; a preference probably, powered by the perception that they are authentic and more durable than recent versions of glass beads. This is a contributing factor to the repetition of old designs without exploring new techniques or designs.

The influence of glass beads has gradually crept into every aspect of the Ghanaian life. State functions such as inauguration of presidents are often marked by both Ghanaian and non-Ghanaians wearing glass beads on their wrist and neck. Majority of the customers are Krobo but, most ethnic groups from across the country express interest or desire in glass beads and this could be one of the factors for development and innovations in the glass bead industry. There is the perception that glass beads when used in commemorative and during historical celebrations lift the spirit of the occasion, especially when brides use it as an accessory on Kente during the traditional marriage.

Based on the findings with regards to objective two; the choice of a customer to purchase glass bead tends to be informed by its appearance and attractiveness. Bright colours attract consumers towards purchasing of glass beads. Proper finishing styles among the Krobo glass bead producers have led to the high patronage.

Customers like traditional glass beads but preferably the ones produced by the Krobo people of Ghana unknowingly. The demand of glass beads produced by the Krobo motivates glass bead producers to produce in larger quantities.

Glass beads have their own aesthetics and cultural significance that are appreciated by customers. The use of Krobo glass beads are based on the aesthetic and functional purposes of the individual concerned. The design of glass beads coupled with the variety of bright colours portray the love for colours on the part of customers.

Various shapes and sizes are used with different colours that are representative of the particular design being portrayed in the design. The design makes good use of elements like line, shape, colour and texture.

Based on the findings with regards to objective three; the processes involved in the production of glass beads among the Ashanti and Eastern were examined to unravel the similarities and differences.

The process involved in powdered glass bead production among the Asante and Krobo remain the same whilst the Krobo continue to improve with new forms of glass beads like the translucent, painted glass beads, antique among others. They have continued to explore with new ideas and discovery in producing glass beads. Both uses recycled glass, old or new broken bottles and louver blades in the production of powdered glass bead. The glass was pounded and sieved. It was then poured in molds of different shapes. The powdered glass was designed with ceramic colouring oxide as required or kept plain in layers with the colouring oxide in the mold. It was then put in kiln and fired. Glass beads were then washed using sand and water and polished with a polishing machine or vegetable oil. Finished glass beads by the Ashanti bead producer were strung on raffia in the old indigenous way whilst the Krobo glass bead producers has advanced to stringing on nylon cords.

Both Ashanti and Eastern glass beads producers produce the powdered glass but the Krobo produce translucent, painted glass beads among others in addition. Another finding that can be drawn from the research question 1 between Asante and Krobo glass beads was that the Asante glass bead producer produced only waist beads. This makes it difficult for customers to choose from since there are no many designs but the Krobo glass bead producers produce for the waist, wrist, earring and necklaces and customers has lot of designs to choose from.

In the production of powdered glass beads produced in the Ashanti region, it was observed that the Asante's use less colouring oxides and dull and darker colours whilst Krobo uses colouring oxides and bright and attractive colours which makes their glass beads attractive over the glass beads produced from the Ashanti region.

The Asante glass beads appeared rough with whitish powder at the ends of the perforating holes, they appeared opaque than some of the Krobo beads which were translucent and had a greasy finish. The colour of most Ashanti glass beads was mostly dull and darker with the design simple whilst the Krobo glass beads were mostly brighter with both simple and complex abstract designs.

5.1 Conclusions

Based on the findings to research question one, the researcher concludes that, Glass beads portray the culture of the people. They are also used for fashion. Asante glass beads are seen to have ancients' designs as compared to Krobo glass beads. Glass beads generally are seen as fetish and evil and some religious bodies do not want to have any association with it. Further, the practice of some traditional rites which make use of heirloom of beads like puberty rites especially 'bragoro' among the Asantes are no longer practiced. This has led to the decline of the glass beads at

the Ashanti areas where glass beads use to be vibrant (Aidoo & Addai, 2017). Moreover, customers' satisfaction leads to purchasing of glass beads.

In reference from objective two, it was concluded that factors that informs the choice of glass beads were its attractiveness, beauty and finishing styles. Customers of glass bead were influenced based on colour, design, texture and shape of glass beads. Customers in buying glass beads consider factors like attractiveness of designs before making their choice. Moreover, the price of glass beads does not affect purchasing. Customers purchase traditional glass beads produced from Krobo unknowingly against the Asante glass beads because of its glossy appearance and attractiveness.

With regards to objective three, it was concluded that, the new forms of bead design like the translucent and painted glass beads have been embraced by the Krobo who were excelling in its production. They have succeeded in developing it to a level that is gaining much recognition and acceptance by both Ghanaian and foreign consumers. It is this trend in glass bead making that has led to the survival and tremendous growth of the industry in Krobo.

It was concluded on the difference in production of Glass bead that the Ashanti glass bead producer was still used to the old production techniques of producing powder glass beads with repetitive designs whilst the Krobo has improved with innovative designs and proper finishing styles.

Ashanti glass beads producer produces were currently designed for intimate adornment for the waist and used also used for funerary objects whilst Krobo glass beads were designed for several occasions such as engagement, puberty rites, funerals, among others.

5.2 Recommendations

Based on the conclusions drawn from research question one, the public should be educated on the preservation of our rich culture and for that matter glass beads as an accessory. Ceremonies like the rites of passage that display variety of glass beads in celebration should be given a renewal and wider publicity through the print and electronic media.

From the conclusions drawn from research question two, glass bead producers were to come out with proper finishing styles especially the producer from Ashanti and use bright and attractive colours to meet customers' demands. The Krobo bead producers should continue to produce glass beads based on aesthetic qualities.

Based on the conclusions drawn from objective three; Glass bead producers especially the Ashanti are encouraged to source for latest information on new techniques of producing glass beads that are competitive to be able to compete with that of the Krobo and to attract customers all over the world.

There is the need for glass bead producers to diverse strategies that meet the demands of customers. This will contribute to the growth of the nation's creative economy. Glass bead producers and the youth are to be motivated on glass bead production in other to sustain the traditional glass bead industry. There should be periodic seminars, courses, exhibition and trade shows for the youth in these communities where glass beads are produced, especially the Ashanti areas where glass beads used to be vibrant to arouse their interest.

5.3 Suggestions for further research work

The researcher makes the following suggestion for further research based on studies already conducted in glass beads production in Ghana.

- Ways of reviving the glass bead production among the Ashanti.

- Safety and health hazards associated with glass bead production.



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APPENDICES

APPENDIX A

INTRODUCTORY LETTER



UNIVERSITY OF EDUCATION, WINNEBA
SCHOOL OF CREATIVE ARTS
DEPARTMENT OF MUSIC EDUCATION
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uew@uew.edu.gh

Ref: SCA/DME/INT/Vol.1/45

24th September, 2020

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.....
.....

Dear Sir/Madam,

INTRODUCTION LETTER – THERESA ADDAI (20026862)

Theresa Addai is a final year student pursuing MPhil, Arts & Culture at the University of Education, Winneba, Graduate School.

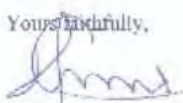
He is currently writing her thesis on the topic *"Competitive Studies on the production of glass beads among the Ashanti and Krobo of Ghana"* and therefore needs your assistance to enable her acquire the necessary information for her thesis.

I am officially introducing her to your organization/institution to provide her with the necessary information and assistance that she might need.

We count very much on your cooperation and understanding in this regard.

Thank you.

Yours faithfully,


John Francis Annan
Ag. Head of Department

OFFICE OF THE HEAD OF DEPARTMENT
UNIVERSITY OF EDUCATION
DEPARTMENT OF MUSIC EDUCATION
WINNEBA

APPENDIX B

INFORMED CONSENT FORM

University of Education, Winneba
School of Creative Arts
Adult Participant Written Informed Consent

Informed Consent Form

Responsible Project Investigators: Dr. Ebenezer Acquah and Dr. Osuanyi Q. Essel

Investigator: Theresa Addai
School of Creative Arts
University of Education, Winneba
P. O. Box 25
Winneba-Ghana

Purpose of this Research

The purpose of this research is to make Comparative study of glass beads produced among the Ashanti and Krobo of Ghana

What you will be expected to do

If you agree to participate in this research, you would be asked to participate in a guided interview with the investigator (tape-recorded). Then, you would be tape-recorded while discussing on the glass beads. This study would take approximately 30 minutes of your time.

Your rights to confidentiality

The obtained data would be treated with absolute confidentiality. A random number will be assigned to you in order to conceal your actual identity. No information will be released to expose your identity. The audio recordings and background information will be stored in a secure location and only the responsible project investigator and his research consultants will have access to them.

Your right to ask questions at any time

You may ask questions about the research at any time by emailing the responsible project investigators at by phone at 050 -739-1013 and 020-899-0892.

Your right to withdraw at any time

Your participation in this research is voluntary. You may withdraw from it or discontinue participation at any time. You may also request for the destruction of your data without any consequences.

Benefits

Your participation in this research may benefit the general populace of Ghana as it touches on the promotion of glass beads. The analysis of glass beads produced among the Ashanti and Krobo of Ghana would help the people in Ashanti and Eastern of Ghana to preserve and promote the culture of glass beads and their significance among the people. This is crucial to the preservation of indigenous art in Ghana as well as in education and culture. This research also helps people to disregard the perception that glass beads are decorative piece but does not have any spiritual powers.

Possible risks

To our knowledge, there are no risks or discomforts involved in this research beyond those found in everyday life.

Dissemination

The results will be disseminated through an MPhil. thesis. They may also be disseminated at conferences and in journals.

Giving consent to participate

By signing the consent form:

- You certify that you are 18 years of age or older, that you have read, and understand the above, that you have been given satisfactory answers to questions concerning the research, that you are aware that you are free to withdraw your consent and to discontinue participation in the research any time, without any prejudice.
- If you cannot obtain satisfactory answers to your questions, or have comments or complaints about your participation in this research, you may contact: Dr. Ebenezer Acquah on 0507391013 or Email: ekacquah@uew.edu.gh.

Participant: I have read and understand the above information and voluntarily agree to participate in this research.

Name

Signature

Date

Please keep a copy of this consent form for your records.



APPENDIX C

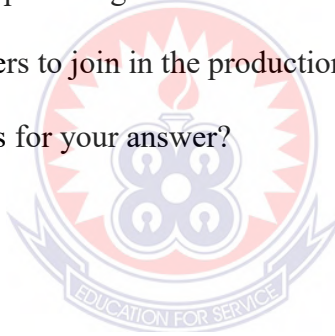
INTERVIEW QUESTIONS FOR RESPONDENTS

1. What are gender distributions of respondents?
2. What are the age distributions of respondents?
3. Where are these glass beads produced from?
4. Which material are the beads made of?
5. Can customers differentiate between glass beads produced from Ashanti or Eastern?
6. Why do people use glass beads?
7. What are your observations on glass beads?
8. Which of the glass beads sells faster?
9. Do the prices of glass beads affect marketing?
10. Which ethnic group patronizes glass beads produced from either Asante or Krobo glass beads?
11. Are you satisfied with the use glass beads?
12. Can you identify any improvements on the glass beads produced from the Ashanti or Eastern?
13. Which majors' customers patronize glass beads?
14. Are glass beads still relevant in the Contemporary world?
15. Which factors influences you to select glass beads produced from Ashanti or Eastern regions of Ghana?
16. Which of the glass beads do you prefer?
17. Are glass beads still used in cultural practices?

APPENDIX D
INTERVIEW QUESTIONS FOR BOTH ASANTE AND KROBO GLASS
BEAD PRODUCERS

1. Any reason for producing glass beads for sale?
2. What are the traditional ways of glass beads production?
3. What can you say about the current state of glass beads production?
4. How did you acquire the skill in glass beads production?
5. Have you heard or seen any other process of glass beads production aside the traditional one?
6. Do you face any challenges with these traditional methods of glass beads production?
7. If yes, what are the challenges associated with the production of glass beads?
8. Is there any means we can improve on the process or procedure of glass beads production?
9. Are people still interested in the production of glass beads?
10. If yes, why are people still interested in the glass beads production?
11. If no, what do you think might be the reasons?
12. How do you get raw materials for the production of glass beads?
13. What are the challenges in the acquisition of raw materials for glass beads production?
14. Which age groups of people are involved in the glass beads production?
15. If older, why are the younger ones not involved?
18. If younger, why are the older ones not involved?
19. Have you heard of Asante / Krobo beads?

20. How are these beads different from yours?
21. Is glass beads production a good business venture?
22. If yes why?
23. If no, why?
24. Who are your major marketers or customers?
25. How do you supply these beads to them?
26. Is this the best way or there are other ways?
27. If there are other ways why are you not engaging in them?
28. What are the prices of the raw materials used in the production of glass beads
29. What factors do you consider in pricing glass beads?
30. How different is the price of glass beads in relation to other beads?
31. Will you advice others to join in the production of glass beads?
32. What are the reasons for your answer?



APPENDIX E

OBSERVATIONAL CHECKLIST FOR BOTH RESPONDENTS AND ASHANTI AND KROBO BEAD PRODUCERS

1. Examine the production processes involved in glass beads
2. Are there any differences in the production of glass beads?
3. Are there any similarities in the production processes involved in glass beads?
4. Are there any challenges associated with the production of glass beads?
5. Are there any health hazards in the production of glass beads?
6. Examine the tools and equipment used in the production of glass beads
7. Examine the care and maintenance of the tools and materials used in the production of glass beads
8. Which age groups are involved in the production of glass beads?
9. Which of the beads do customers prefer?
10. Which factors affect customers' choice in purchasing glass beads?
11. Examine the possible factors that affect the pricing of glass beads.
12. Examine how glass beads production are still vibrant among the Krobo.

