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KUMASI-GHANA

Investigating Customer Retention in Mining Industries:
(Case Studies of Mill Liners Suppliers in Ghana)

By

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fulfillment of the requirements for the degree of

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DECLARATION

I hereby declare that this thesis is my own work towards the Master of Business Administration and that, to the best of my knowledge, it contains no materials previously published by another person, nor material which has been accepted for the award of any other degree of the University, or any other university, except where due acknowledgement has been made in the text.

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DEDICATION

I wish to dedicate this work to my wife, Mrs. Leticia Asante Gyapong; children: Bernice Odai Gyapong, Godbless Kofi Gyapong and entire Gyapong's family who in diverse ways have supported me in all my endeavors.



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ABSTRACT

The aim of every profit making organisation is to remain competitive and improve its market share. Traditionally, firms have achieved this goal by focusing their attention on marketing strategies that attract new customers and increase their market share. However, due to globalization, most industries and markets are becoming more and more competitive forcing significant changes in the way firms do business. In order to retain customers in industries characterized by high competition, firms need to meet each individual customer's needs and expectations. Against this backdrop, the study sought to examine customer retention in the mill industry of Ghana. A total questionnaire of 186 were administered (consisting of 116 Customers and 70 Suppliers). Descriptive statistics in the form of frequencies, mean and standard deviation were used to describe the responses obtained. The study found that the main strategies being used by mill liner suppliers to retain their customers include the implementation of flexible pricing and payment, value creation and offering differentiated products/services to stay above the competition. It was also found that the main factors influencing customer retention in the mill lining industry is price, consistency in quality of products offered and quality service delivery. It was found that customers generally perceive the products and services offered by these mill liner suppliers as satisfactory and are willing to remain with their current suppliers. The study recommends that, since competition in the industry is keen, mill liner suppliers must offer differentiated products and services to enable them retain and attract new customers.

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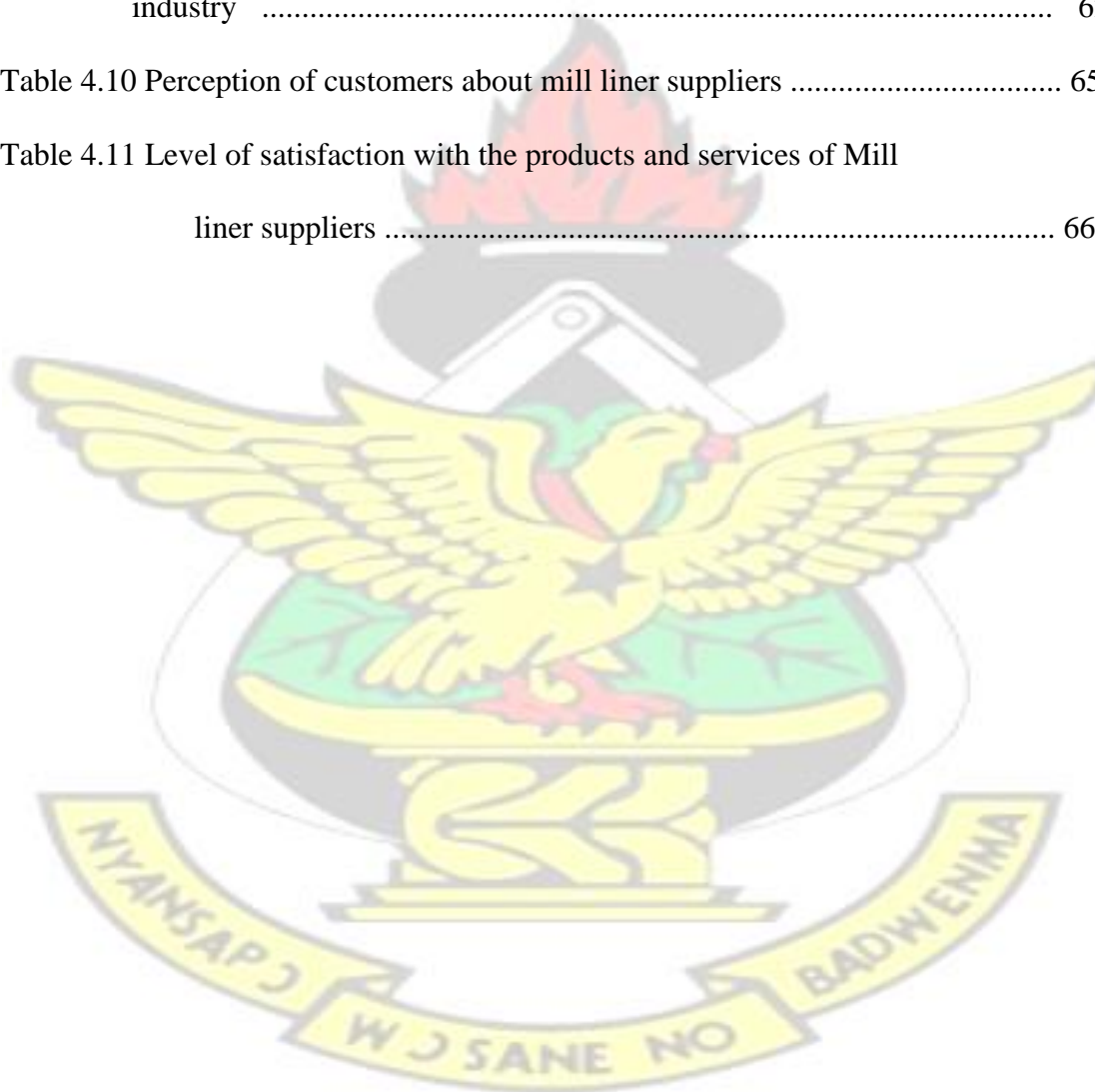
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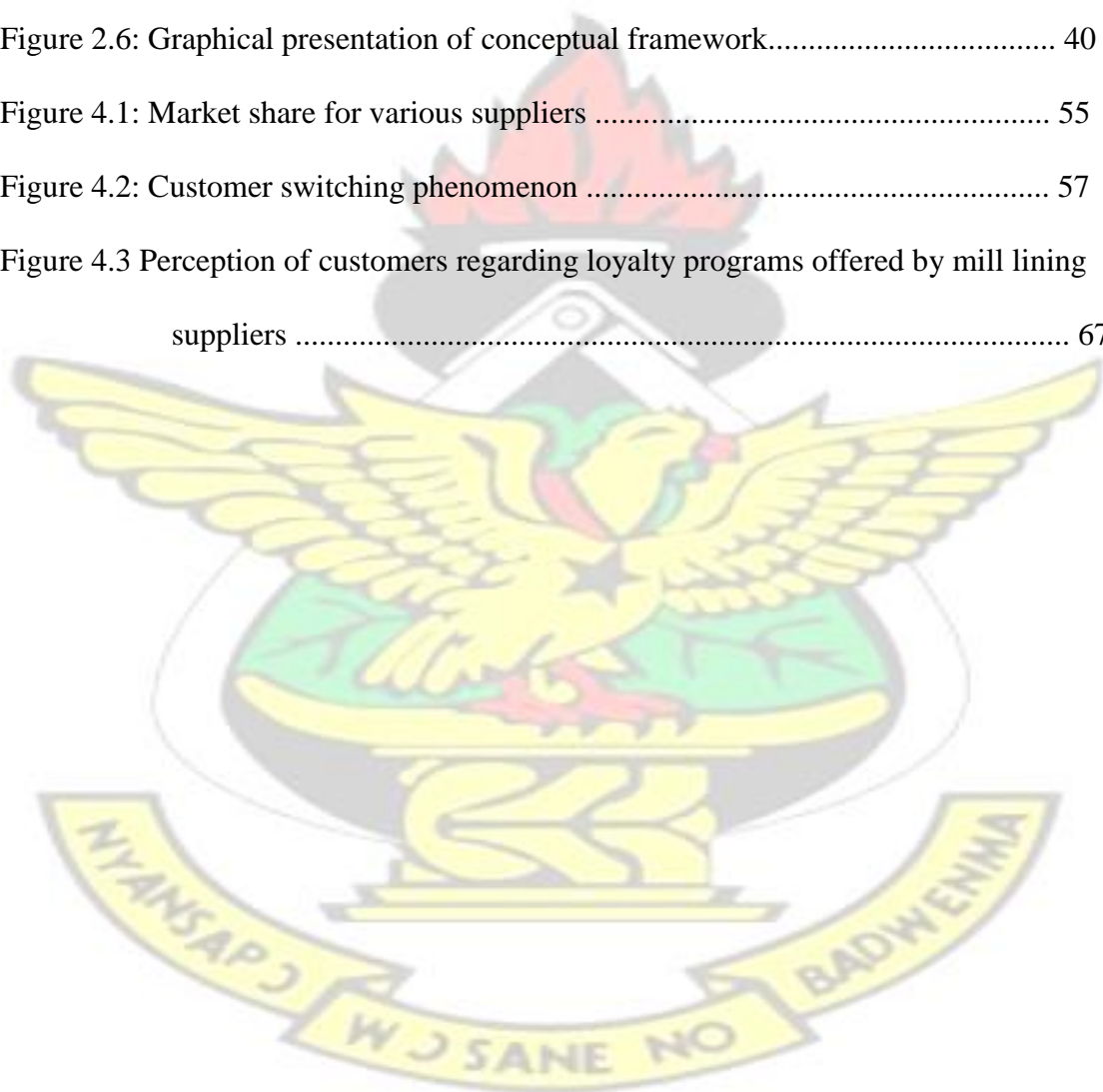
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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

As indicated by Armstrong and Kotler (2008), it is essential for firms to execute the right marketing strategies with a specific goal to succeed. Generally, firms have centered their marketing strategies on drawing in new customers/clients in order to expand their market share. Then again, because of globalization, most markets are turning out to be more competitive therefore creating serious changes in the way firms do business. Keeping in mind the end goal to hold clients in businesses portrayed by high rivalry, firms need to address every individual client's issues and desires. Gummesson (2002) contends that it is the value of the customers' encounters with the product/service that is vital, in this way, Customers' needs are critical to consider when creating products and services.

The academic literature accessible today perceives the presence of a movement in firm's alignment to their customers, from a value-based to a more social methodology (Eriksson & Vaghult, 2000; Morgan & Hunt, 1994). Morgan and Hunt (1994) contended that this change has prompted an increment in studies concentrating on the factors and system deciding the foundation, advancement and support of effective customer retention. Today customer retention is a center part of marketing. The American marketing association's (AMA) depiction of marketing states, *"Marketing is an organizational function and an arrangement of procedures for making, imparting and conveying quality to customers and for overseeing customer retention in ways that benefits the organization and its shareholders"*

Customer retention is the action that a selling organization attempts with a specific end goal to diminish customer defection. Fruitful customer retention begins with the first contact an organization has with a customer and proceeds all through the whole lifetime of a relationship. An organization's ability to attract and hold new customers, is not only associated with its product or services, but strongly connected to its product or services, but strongly linked to the way it services its existing customers and the reputation it builds within and the market.

Winer (2001) contends that, in building effective social trade with the clients, there is a need to comprehend customer practices and concentrate on those customers who can convey long haul benefits to the firm. Nonetheless, no firm can retain to all of its customers and go for full Customer retention (Egan, 2004). This is because of several factors; one element is for instance the way that in exceptionally focused markets, customers may switch either briefly or for all time to another product or service. Egan (2004) further contends that it is unbeneficial to endeavor to accomplish total retention of customers as the expense of doing as such is liable to be restrictive. As Egan (2004) puts it, firms must know when to 'split before the party has really started'. Subsequently, firms are turning more towards seeing customer retention as a key device. Additionally, Egan (2004) characterizes customer retention strategies as concentrating on firm's current customers with the aim of securing a customer's dedication over time. Eriksson and Vaghult (2000) contend that in order for firms to profits from customer relationship, they have to comprehend the mechanisms behind it by concentrating on already retained customers. The writers further contend that, on the other hand, studying already retained customers is not a simple assignment as customer retention is with respect to a company's specific context. For example, it is difficult for a firm to know when a

customer ought to be considered as being 'retained'. At times, a customer is considered as retained when the customer makes frequent buy, however; it is then becomes difficult to assess how regular this customer is then expected to buy the product/services.

Ashish Bhave (2008) stressed that there is a connection between customer satisfaction and customer retention. It is thus, the purpose of this study to examine customer retention strategies employed by the Mill Liners Supplying Companies in Ghana and the factors influencing the retention of the customers.

Mill is made up of thick steel plate designed in a horizontal cylindrical- like shape. There are many different types of grinding mills, such as ball mill, rod mill, autogenous mill, Semi-Autogenous grinding (SAG) mill, pebble mill etc. The body of the mill is constantly subjected to wear and tear from ore, as well as the grinding media (steel balls). Hence need to be protected by using liners that absorb impact and does not allow impact to propagate to the mill body. Liners are classified based on materials used for manufacturing. There are three main types of liners: Steel liners, Rubber liners and Rubber-Steel (Composites) liners.

1.2 Statement of Problem

The amount of money, time and energy companies spent to attract new customers as well as retaining the old ones through promotional activities cannot be overemphasized (Buttle and Ang 2004). In fact, customer retention has definite benefits as it costs a lot more to draw new customer than it cost to retain current ones (Fornel and Wemerfert 1987). Customer retention has a direct bearing on profitability. Fleming and Asplundh (2007) reported that, existing customers create 1.7 times more revenue than new customers. In an advanced market, the best way a company can sustain a competitive

advantage is by retaining its customers (Jagdish *et al.*, 1999). Competitive policies for holding existing customers tend to be less expensive than those for gaining new customers. (Jagdish *et al.*, 1999).

To retain the customers you give them what they anticipate; it's about surpassing their expectations so that they become loyal campaigners for your brand. If customer loyalty is created, it puts 'customer value rather than maximizing profits and shareholder value. Repeat customers mean cost efficiencies and the cost of serving an established customers are considerably less than the cost of serving new customers (Jagdish *et al.*, 1999).

In the Ghanaian context, the mining industry is witnessing very keen competition. Activities of mining industries cover the whole of the sub-region. Consequently, there is a serious struggle for customers among mill liners suppliers not only in Ghana but in the whole of the West Africa sub-region. To stay in business and be profitable, mill liners companies must reorganize their activities and ensure that customers continuously use their products or services.

However, in the review of relevant literature it was found that no study has been conducted to investigate customer retention in mining industries especially in mill liners firms. This situation thus presents a knowledge gap and this thesis seeks to fill this knowledge gap.

1.3 Objective of the study

The main objective of this study is to investigate customer retention in the mining industries:

The specific objectives of the study are as follows:

1. To examine customer retention strategies employed by mill liners suppliers in Ghana.
2. To assess factors influencing customer retention in the gold mining industries for mill liners.
3. To identify factors influencing the profitability of mill liners in Ghana.
4. To examine customers perception of mill liners suppliers in Ghana.

1.4 Research Question

To reach the objective stated above, the following research questions shall be addressed:

1. What are the strategies being used by mill liners suppliers to retain their customers?
2. What factors influence customer retention in the mill liner industry?
3. What are the factors influencing the profitability of mill liner suppliers in Ghana?
4. How do customers perceive the services and products of mill liners suppliers?

1.5 Scope of the Study

Customer retention strategies can be examined from the viewpoint of the business as well as the customers.

The study focuses on strategies employed by mill liners suppliers in the mining industries in Ghana. Also factors influencing customer retention in the gold mining industries for mill liners for customers' perspective are considered.

The analyzed are conducted by collecting primary data from customers of all the gold mining companies in Ghana as well as suppliers of mill liners companies in the country. The reason of selecting Ghana is that, it is easy to reach the respondents. It is also essential to assess their perceptions since the efficiency of a specific retention strategy can only be analyzed from the customer's opinion. The study will span the six – year period of 2010 to 2015.

1.6 Justification of the Study

Review of relevant literature has established that, there has not been any empirical study on customer retention in mining industries. This study will definitely make available valuable insight into customer retention in the mining industries, using mill liners suppliers as a case study. Therefore this study will serve as a pace setter for subsequent related studies. It will also review various unexplored strategies that are yet to be implanted by the mill liner suppliers in the mining industries. The study will further establish various factors influencing customer retention in the gold mining industries for mill lining products.

1.7 Limitation of the study

There was a lot of issues encountered for the study. The respondents for the questionnaire were located across the length and breadth of Ghana. Some of the mining companies are located in remote areas and access to such areas were not easy. Various respondent were not willing to give out the data. Ethical and legal by-laws also made it quite difficult to access some of the information. They thought the information will be used for other purpose rather than academics.

1.8 Organization of the Study

This thesis consist of five chapters, the introduction, the literature review, the methodology, the analysis of the data collect for the study and the presentation of the results and the concluding chapter.

Chapter One is the introduction and contains the background to the study, the problem statement, objective of the study, research questions, scope of the study, justification of the study, limitation of the study and the organization of the study.

Chapter two is the Literature Review, and presents the relevant literature on gold mining industries in Ghana, the gold processing stages, mining support companies in the mining industries, contribution of the mining industries to the development of Ghana. The chapter will also look at the factors influencing customer retention, customer retention strategies and process employed by the mill liner industries, customer relationship marketing and customer satisfaction.

Chapter Three is the Research Methodology used to conduct this study. This consist of sampling method, sample population and size, data collection instruments, sources of data, analysis of data and research design/conceptual framework.

Chapter Four covers analysis of the data collected for the study and the presentation of the results and analyses.

Finally, chapter five is designed to present the summary of the findings, conclusion and recommendation based on the data analysis.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The present chapter reviews, relevant literature and it is in two parts. Part one is on gold mining industry in Ghana, the gold processing stages, mining support companies and the contribution of the mining industry to the development of Ghana. Part two is about factors that influence customer retention, customer retention strategies and process employed by the mill liner industry, customer relationship marketing and customer satisfaction.

2.2 Gold Mining firms in Ghana

This segment talks about the pattern, the procedure and the stages include in gold handling in Ghana. Gold mining organisations working in Ghana and in addition the types of plants in used as a part of gold handling will likewise be talked about.

2.1.1 Trend in Gold Production

Gold is one of the main export commodity for Ghana, with this valuable metal fetching almost 48 percent of the nation's income. After South Africa, Ghana is the biggest gold producer in Africa and in the first quarter of 2012, the nation earned about \$1.5 billion through export of gold. As indicated by Bank of Ghana, in 2012 the nation could keep seeing an increment in income with gold exports. It was anticipated that in 2012, Ghana would make more than \$4 billion with gold exports. Although, gold price has decreased in recent time, Ghana still produces quite significant amount of Gold. Table 2.1 below shows gold production (in ounces) in Ghana from 2008 to 2013.

Table 2.1: Gold Production (million ounces) in Ghana from 2008-2013

| Year | Gold Production (million ounces) |
|-------------|---|
| 2008 | 2.60 |
| 2009 | 2.90 |
| 2010 | 3.70 |
| 2011 | 3.60 |
| 2012 | 4.32 |
| 2013 | 4.12 |

Sources: Minerals Commission

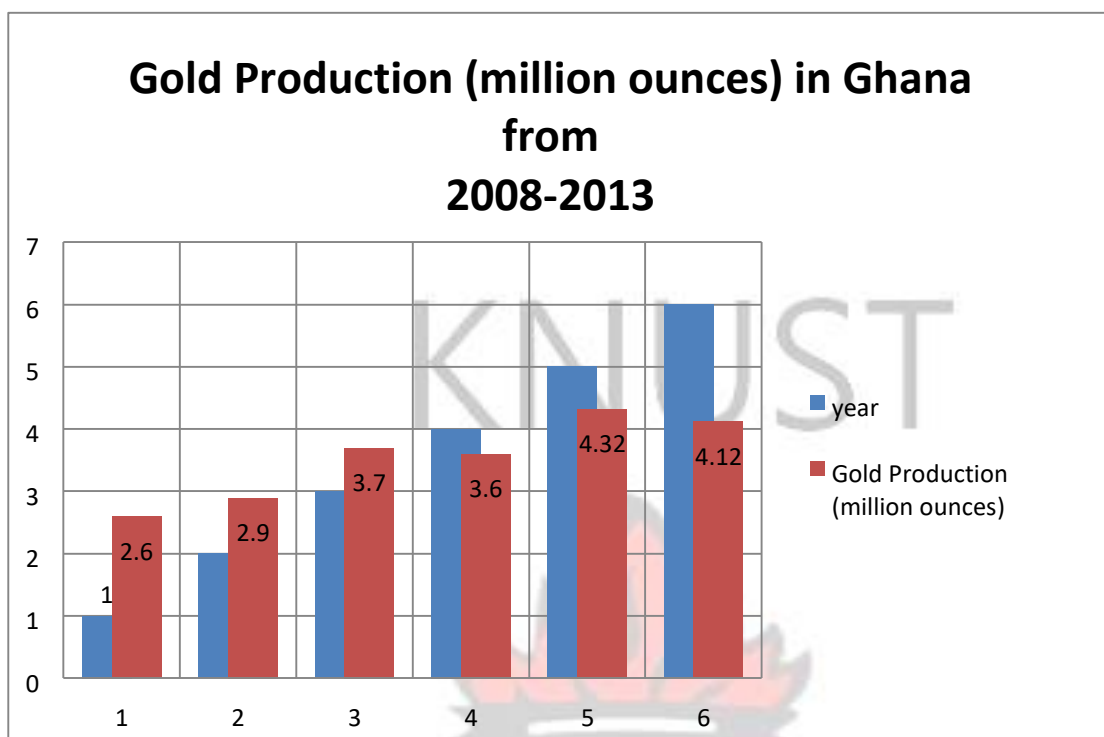


Figure 2.1: Gold Production (million ounces) in Ghana from 2008-2013

2.1.2 Gold production firms in Ghana

There are about thirteen operating gold mines in Ghana as at the end of 2014. Table 2.2 below indicates mining companies which are in operation.

Table 2.2: Operating Gold Companies in Ghana

| Name of the Mines | Company (Owners) | Location |
|---------------------------|---------------------------|----------------|
| Ahafo Gold Mines | Newmont Ghana Ltd | Ahafo, |
| Akyem Gold Mines | Newmont Ghana Ltd | New Abrim |
| Abosso Gold Mines | Gold Fields Ltd | Abosso |
| Bibian Gold Mines | Noble Mineral Resources | SefwiBibiani |
| Bogoso/Prestea Gold Mines | Golden Star Resources Ltd | Bogoso/Prestea |
| Chirano Gold Mines | Kinross Chirano Ltd | Chirano |
| Damang Gold Mines | Gold Fields Ltd | Damang |
| Edikan Gold Mine | Perseus Gold Ltd | Ayanfuri |
| Iduapriem Gold Mines | AngloGold Ashanti Ltd | Tarkwa |
| Nzema Gold Mines | Endeavour Mining | Near Takorad |
| Obuasi Gold Mines | AngloGold Ashanti Ltd | Obuasi |
| Tarkwa Gold Mines | Gold Fields Ltd | Tarkwa |

| | | |
|------------------|---------------------------|-------|
| Wassa Gold Mines | Golden Star Resources Ltd | Wassa |
|------------------|---------------------------|-------|

From table 2.2, it is clear that there are lot of gold mining companies in Ghana and each needs the mills to liberate the gold that are locked in the rocks, and each mill also need to be lined with liners.

2.1.3 Stages of Gold Processing in Ghana

The process of producing gold can be divided into five main phases. These are;

- finding the ore body (Geological activities)
- creating access to the ore body (Mining activities)
- removing the ore by mining or breaking the ore body (Mining activities)
- transporting the broken material from the mining face to the plants for treatment ((Mining activities)
- processing the ore (Mineral processing –Metallurgical activities) □

Administration/Human resource Department.

The focus of this work will be more on phase five, that is processing the ore.

Processing the gold ore (crushing and milling)

The first stage of mineral processing is the comminution (the breaking up of ore to make gold available for treatment).Conventionally, this procedure happens in multistage; crushing and milling.

Crushing

Crushing is the process of transmitting a force enhanced by mechanical point gain through a material made of particles that bond together more strongly, and oppose

distortion more than those in the material being crushed do, Gupta and Yan (2006).

Crushing is done by crusher.

A **crusher** is a machine designed to decrease bigger rocks into smaller rocks. Crushers may be utilized to decrease the size of solid mix of raw materials (as in rock mineral), so that bits of diverse components can be separated. Crushing machines hold material between two parallel or digression solid surfaces, and apply adequate force to get the surfaces to produce enough energy inside of the material being crushed so that its particles separate from (breaking), or change arrangement in connection to (distortion), one another.

Milling

The main aim of milling gold ore is to free the gold for the highest financial return. To fulfill this, the ore must be finely ground to free gold particles.

Every ore has its own gold-liberation attributes, and wide variables in comminution properties may happen within large gold deposits, Mular *et al* (2002). Tests and viability studies need to characterize the ideal milling circuit that can convey satisfactory mill feed at all times. For the grinding and milling circuit, most organisations depend on primary grinding in semi-autogenous grinding (SAG) mills, follow by fine grinding in ball mills. An autogenously mill is, by definition, a mill that utilizes coarse ore as the grinding medium while it's itself being ground. Practically speaking, autogenous grinding must be changed to semi-autogenous grinding, since absence of adequately hard ore requires the addition of large steel balls to keep up the required grinding rate.

Ball mills are used to achieve fine grinding. Ball mills are high-throughput, closed-circuit grinders with steel balls as the grinding medium. They generally work in closed circuit with classifiers and/or cyclones.

Every tumbling mills are internally lined with mill liners, in order to protect the mill shell from wear, reduce the slid between the shell and the grinding media; and have significant impact on operating cost.

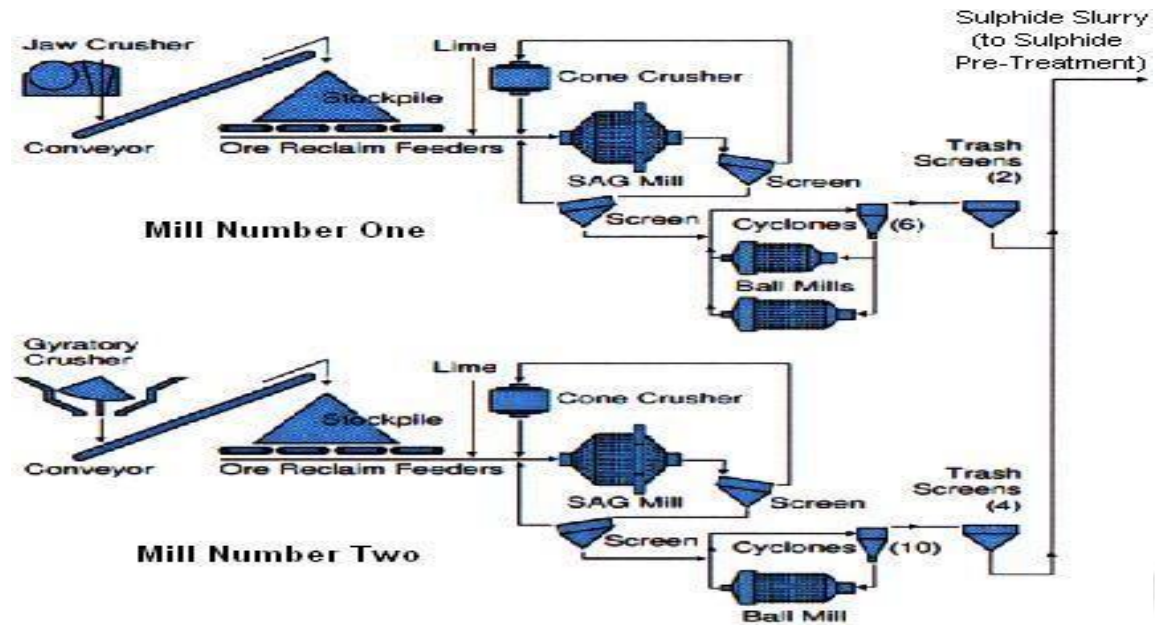


Figure 2.2: Phases in gold process

2.1.4 Types of mills in gold industry

In a mineral processing plant, one essential equipment is the grinding mill. A grinding mill is a unit operation designed to break a solid (the ore) into smaller pieces. A mill is made up of thick steel plate designed in a horizontal cylindrical- like shape. There exist many different kinds of grinding mills, such as ball mill, rod mill, autogenous mill, Semi-Autogenous grinding (SAG) mill, pebble mill etc.

The body of the plant is always subjected to wear and tear from metal, and additionally the grinding media (steel balls). Henceforth should be secured by supplanting liners that assimilate affect and does not permit effect to spread to the plant body.

Autogenous grinding mill

Autogenous or autogenic mills are so-called because of their self-grinding of the ore: a rotational drum throws big rocks of ore in a gushing motion which causes impact fracture of bigger rocks and compressive grinding of finer particles. It is comparable in operation to a Semi Autogenous Grinding (SAG) mill as described in figure 2.3 but does not utilize steel balls in the mill.

Semi-Autogenous grinding (SAG) mill.

SAG is an acronym for Semi-Autogenous Grinding. SAG mills, figure 2.3 are basically autogenous mill, but use steel balls to help in grinding like in a ball mill. A SAG mill is normally used as first stage (primary) mill.

Attrition among grinding balls and ore particles results in grinding of improved particles. SAG mills are described by their huge diameter and short length when contrasted with ball mills. Within the mill is lined with either rubber or composite plates and lifter bars to lift the material inside the mill. Where it then tumbles off the plates onto the remaining of the ore charge. SAG mills are basically utilized at gold, copper and platinum mines with applications likewise in the lead, zinc, silver, alumina and nickel industries.

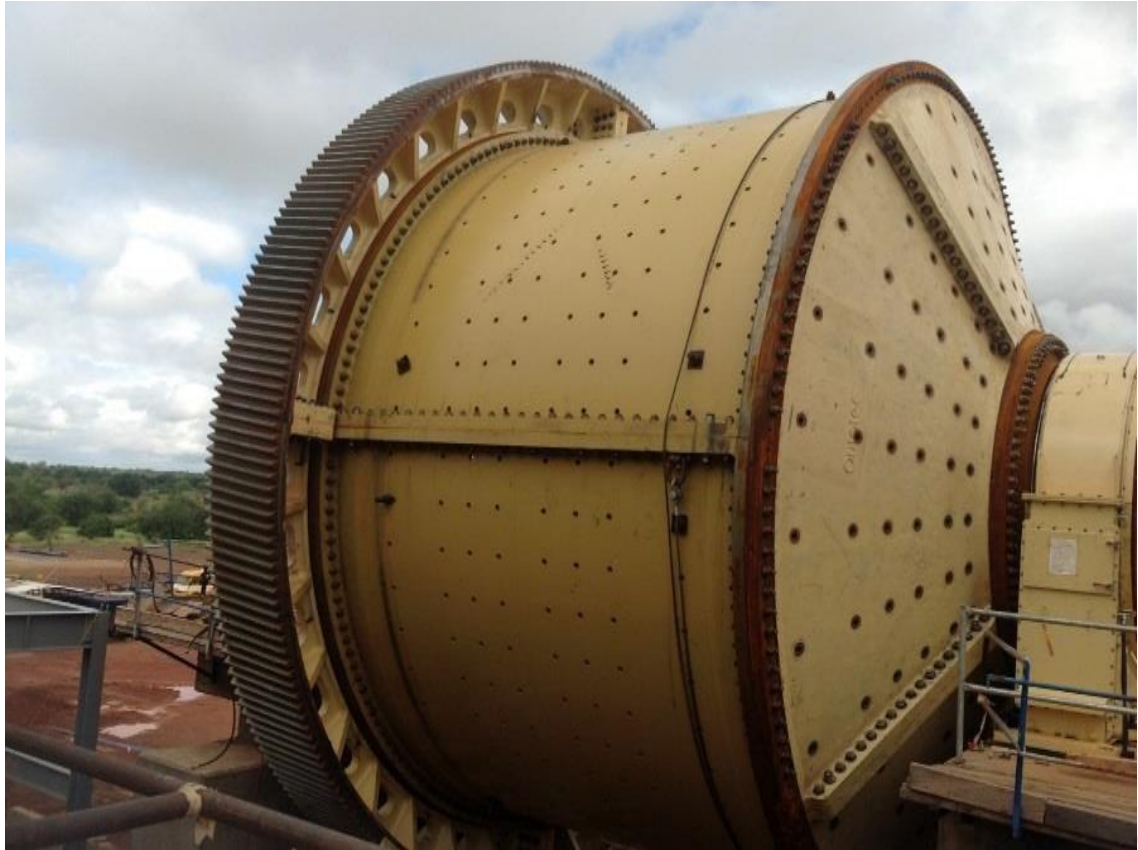


Figure 2.3: Semi-Autogenous grinding (SAG) mill.

Ball mill

A typical type of fine grinder is the ball mill. A slightly inclined or horizontal rotating cylinder is partially filled with balls, usually stone or metal, which grinds material to the necessary fineness by friction and impact with the tumbling balls, figure 2.4. The

inside of the mill is also lined with either rubber or composite plates and lifting bars to lift the material inside the mill, where it then falls off the plates onto the rest of the ore charge.



Figure 2.4: Ball mill

Rod mill

A rotating drum generates friction and abrasion among steel rods and ore particles. The term 'rod mill' is also used as an alternative word for a slitting mill, which makes rods of iron or other metal. Rod mills are less common than ball mills for grinding minerals. The rods used in the mill, usually a high-carbon steel, can vary in both the length and the diameter. However, the smaller the rods, the larger is the total surface area and hence, the greater the grinding efficiency.

2.2 Mill liners

This section presents the purpose of mill liners and types of liners used in the mining companies in Ghana.

2.2.1 Purpose of mill liners

The main purpose of mill liners is to protect the mill shell from the aggressive impact and abrasive environment inside the mill. The second primary function of liner is to transfer motion of the mill to the grinding media and charge.

The selection of the materials of construction is a function of the application, abrasivity of the ore, size of mill, corrosion environment, size of balls, etc. Liners design and materials of construction are integral and cannot be chosen in isolation.



2.2.2 Types of Mills liners

Liners are classified based on materials used for manufacturing. There are three main types of liners: Steel liners, Rubber liners and Rubber /Steel (Composites) liners.



Figure 2.5: Installed rubber and composite liners in a mill

Steel Liners:

This is basically made up of steel (especially high carbon chrome moly steel) and normally used to line SAG mills.

Rubber Liners:

These are normally used in ball mills and regrind mills. The materials used for rubber liners usually consist of a blend of a natural and synthetic rubber. In some applications, the material may be all synthetic. The mixture of the rubber and synthetic materials plus various chemical and fillers is called a “Compound”.

Rubber/Steel Composite (Poly-met):

These types of liners can be used in both SAG and Ball mills. It is made up of steel and Rubber. The main advantage of composite liners is that, there is uniform wear on the

lifting portion unlike steel liners where the wear is more on the lifting portion and become smoother with less lifting action as it wear down.

2.3 Other mining support companies

Mining companies have many departments and each may use one or more items that can only be supplied by another company. Mining support companies perform other mining services or activities on a contract or fee basis on behalf of the mother company. There are many mining support companies in Ghana. The services render by each company differ from one another. Some support the geological department (e.g. African Explosive Ltd, AEL Mining Services for the explosive chemicals). African Mining Services, AMS) support the mining department, and other companies also support the processing department; and include Tega Industries Ltd, Metso Minerals, Weir Minerals etc. for supply of steel, rubber and composite products.

2.3.1 Global Manufacturers of Mill Liner:

There are many manufacturing companies of mill liners worldwide. The most wellknown once are as per Table 2.3 below.

Table 2.3: Manufacturers of Mill Liners

| Name of Company | Country of Origin | Type of Liners Manufactured |
|------------------------|--------------------------|------------------------------------|
| Metso Minerals | Sweden | Composite, Rubber & Steel |
| Tega Industries Ltd | India | Composite & Rubber |

| | | |
|-------------------|--------------|--------------------|
| Polycorp | Canada | Composite & Rubber |
| Multotec | South Africa | Composite & Rubber |
| Weir Minerals | USA | Composite & Rubber |
| Theojo | India | Composite & Rubber |
| PT Growth | Indonesia | Steel |
| Holtrade | UK | Steel |
| Norcast (Bradken) | Canada | Steel |

2.4 Economic importance of mining industry in Ghana

Mineral commodities give nations having them preference in their developmental endeavors. Export incomes from minerals valued 35%, and the sector is one of the biggest contributors to Government incomes through the payment of mineral royalties, employee income taxes, and corporate taxes. In 2005, gold production represented around 95% of entire mining export earnings. The mining business in Ghana is relied upon to create a yearly income of Gh₵ 75.7 billion (US\$35 billion) before the end of 2014.

The mining section has been a vital piece of Ghana economy, with gold representing more than 90% of the sector. Ghana is the second biggest gold producer in Africa and the ninth biggest producer in the world. The sector directly contributed 38.3% of Ghana's corporate tax income, 27.6% of government income and 6% Gross domestic product (GDP), (source: Minerals commission of Ghana). The mining companies have likewise made esteem past monetary installments to Government. This is accomplished through a few channels: extra monetary incomes from mining-related activities, employment created by these activities, inputs procurement for different sectors, innovative work exercises, and innovation exchanges. Mining has hence added to the

development of other sectors like banking, financial services, transport, logistics and amongst others. Mining additionally adds to improvement through usage of Corporate Social Responsibility (CSR) programs for host communities and the whole public. In 2011, US\$24 million was spent on CSR schemes by the mining organizations.

According to Mineral Commission of Ghana (2014), the mining industry engages over 28,000 individuals in the large scale mining industry whilst more than 1,000,000 individuals are engaged in the small scale gold, precious stone (diamond), sand winning and quarry industries. In 2011, Ghana produced 3.6 million ounces of gold, the most noteworthy ever. This brought about export income of over US\$5billion. It is important to note that small scale miners contributed about 28% of the total gold produced in 2011. Total direct investment into the minerals and mining sector from 1983 to 2011 added up to US\$11.5 billion.

2.5 Customer Retention

As indicated by Kotler and Keller (2013), loosing prolific customer can significantly influence a firm's profits. The expenditure of pulling in new customer is evaluated to be five to seven times the expense of keeping a present customer happy. The writers further expressed that, the way to retaining customer is relationship marketing.

Customer retention is the action that an organisation embark on, in order to reduce customer defections (Kotler and Keller, 2013). Customer retention is gradually being seen as a vital managerial issue, particularly in the context of flooded markets or miniature industry growth. In this section of the thesis, concepts concerning factors influencing and strategies for customer retention will be considered.

2.5.1 Concepts concerning the factors influencing customer retention

In this section, structures and models demonstrating the factors impacting customer retention in light of both suppliers' and customers' perspective will be outlined. In light of that, the work will later on analyze the data from the field and relate it with how mining support firms see these factors as influencing customer retentions from literature.

Four fundamental concepts have been chosen including Sharma and Patterson's (1999), *relationship commitment model*, Ranaweera and Prabhu's (2003), *holistic approach model*, Richard's (1996), *conversion model* and in addition, Ranaweera and Neely's (2003), *holistic approach model*.

Factors in the Relationship Commitment Model

Sharma and Patterson (1999) exhibited a model demonstrating the determinants of relationship responsibility. The model includes three variables, for example, correspondence adequacy, specialized quality and utilitarian quality; all influenced by trust in the relationship which in turns influence relationship commitment.

Trust-Trust is characterized by the writers as the conviction that product/service supplier can depend on to carry on in a manner that the long haul hobbies of the purchaser will be served (Sharma & Patterson, 1999). This was the connotation of Crosby *et al.*, (1990). Consequently, the more noteworthy the level of trust, the more grounded is the relationship responsibility. The element of trust was likewise taken a gander at by Morgan & Hunt (1994) who contends that trust has a positive relationship to the degree through which the organizations offer comparable qualities. Ganesan (1994's) studies demonstrated that a trust supporter for firms was clients' fulfillment with past trades with the organizations.

Service quality- Service quality as per Sharma and Patterson (1999) is grouped into two primary parts: *technical quality* and *functional quality*. Technical or specialized quality is identified with the real results or the core activities as alleged by the customer. Here, the competency of the organizations in accomplishing the best quantifiable profit for their clients at worthy levels of menaces is seen. Specialized quality is pertinent to the guaranteed service or product. Functional quality then again is concerned with "what" is conveyed, manages "how" the service/product is/are conveyed. It is concerned with the communication between the product/service supplier and the receiver, and is evaluated in a very subjective way. The writers further contend that trust had an incredible effect on how quality is conveyed, both as far as practical and specialized quality. Therefore, it is contended that the more prominent the apparent specialized quality, the more grounded is the trust in the relationship, and the more noteworthy the apparent nature of the guide, the more grounded is the level of trust in the relationship. Thusly, the more grounded is the relationship duty. (Sharma & Patterson, 1999).

Communication effectiveness- Communication effectiveness is alluded to the formal and in addition the casual sharing of important and convenient data between a customer and a counsel in a compassionate way. The motivation behind such is to instruct and keep customers educated about their interests in a dialect that they can get it. Solid relational abilities are obliged to guarantee that customers comprehend speculations and in this way turn out to be more certain about their capacity to survey budgetary dangers and results. Therefore, the more noteworthy the correspondence adequacy, the more grounded is the relationship responsibility. (Sharma & Patterson, 1999)

A holistic approach to Satisfaction, Trust and Switching barriers

Ranaweera and Prabhu (2003) drafted an all-encompassing approach that inspects the consolidated impacts of satisfaction, trust and switching barriers on customer retention. The writers characterize customer retention as the propensity for clients to stay with product/service providers. The system gave has two capacities; its first capacity is to analyze the primary impacts of the three variables on customer retention independently and its second function is to inspect the collaboration impacts that trust and switching barriers has on customer retention in the area of satisfaction.

Customer satisfaction - *Customer satisfaction* is conceptualized by the writers as the assessment of a feeling and broadcasts that the higher is the satisfaction/fulfillment, the higher is the retention level (Ranaweera & Prabhu, 2003). Many studies showed that the more satisfied a company's clients are, the more they stay faithful to the firm (Fornell, 1992). Subsequently, firms have committed bunches of endeavors on overseeing and expanding consumer loyalty (Ranaweera&Prabhu, 2003).

Patterson, Johnson and Spreng (1997) contend that fulfilled clients are seen as key method for making maintainable focal points in aggressive circumstances. The writers further allude to Anderson & Sullivan (1993) who expressed the accompanying: *"Putting resources into consumer loyalty is similar to taking out a protection arrangement. On the off chance that some hardship briefly comes upon the firm, clients will be more prone to stay steadfast"*. Patterson *et al.* (1997) further take a gander at client disappointment as the contrast between an individual's pre-buy desires and postbuy execution of the product or service.

Ranaweera and Neely (2003) state in their article, it has been regular before for exploration on service quality to be centered on measures of consumer loyalty. However today, simple fulfillment does not guarantee customer retention and thusly,

the center in late research has to some degree moved from mulling over drivers of customer satisfaction to looking at drivers of customer behavior, for example, repurchase propensities. Although consumer satisfaction is a decent base to begin with when retaining clients, it is by all account not the only impacting variable. Richards (1996) contends that a few customers despite the fact that they are satisfied will leave the firm while other people who are disappointed will remain.

Trust- Trust is conceptualized as existing when one party has trust in the other party's dependability and uprightness. The writers contend in the article that many studies have perceived that, despite the fact that organisations oversee legitimately to satisfy their customers, they may be not able to retain them. Subsequently, satisfaction alone is lacking to guarantee long term customer assurance to a solitary supplier. Because of expenses identified with the end of the relationship, once trust has been built, the likelihood of each party ending the relationship reduces, (Ranaweera and Prabhu, 2003).

Gounaris (2003) contends that trust is a key component in any sort of relationship. The more a customer believes a supplier, the higher is the apparent estimation of the relationship. Thusly, the more prominent the chances that the customer stays in the relationship will be. Besides, trust is a critical element in the perceive quality of services, particularly in business to business services. Trust is established continually as a result of regular reliance on the relationship resulting from common adaptation to other party's needs.

Perceived switching barriers- The perceived switching barriers are theorized as the consumers' assessment of the resources and prospects required to accomplish the act of

switching as well as the restriction preventing it (Ranaweera and Prabhu, 2003). Hence, the writers claim that the greater the level of perceive cost is, the higher is the likelihood for the customer to remain. The element of switching or termination costs is also recognized by Morgan and Hunt (1994) as contributing to keep relationship. Nevertheless, the writers see switching cost as being in addition of economical nature, of both emotional and demonstrative nature. The writers additionally present little examples of switching costs which include social bonds, personal rapport and trust which have been established over time. The writers contend that switching costs can act as a present emotional exit barrier even when performance of the fundamental activities is less than satisfactory.

Factors in the Conversion Model

The conversion model delivered by Richards (1996) is centered on the fact that it is not sufficient to satisfy customers as satisfaction alone does not foretell customer behavior. Richards (1996) contends that satisfied customers will still leave, dissatisfied will remain, hence instead of arguing customer satisfaction, firm should discuss customer commitment. Additionally, the writer agrees that customer satisfaction aids to make the customers committed, however the establishing of committed customers includes more than just satisfying them. Other than *customer satisfaction*, Richards (1996) categorizes three aspects as drivers of commitment.

Level of involvement- The major element is the level of involvement in the product and services. The more customers are involved in a particular choice, the more judiciously they will select and once they have made their selections they often stick to it. Therefore, if the customer is not satisfied but involved, his/her main plan will be to attempt and repair the relationship instead of looking for other alternatives. If the

consumers are both not satisfied and not involved, they would not even bother about fixing the relationship but just switch suppliers. Participation generates a willingness to abide dissatisfaction. (Richards, 1996).

Becket *et al.* (2000) maintains that consumers' involvement in the buyer-seller trading adds numerous subcategories such as customer control, customer involvement and level of interaction. The higher a customer is involved, the more he/she has trust in the product/service.

Attraction of alternatives- The second element is the attraction of alternatives. One of the contentions of Richards (1996) is that the more the choices draw in, the more disappointed clients will complain, and switch service provider. On the off chance that the options accessible are not considered as being "great" change might then be deferred regardless of disappointment. Then again, if the choices pull in, customers may communicate despite the fact that they are profoundly satisfied. Sharma and Patterson (2000) mention that when customers are not mindful of the accessible substitutes they may proceed in a product/service despite the fact that is a less attractive one. Patterson and Smith (2000) in their paper presume that when customer are mindful of and see different suppliers as offering a separated price as far as value, service and/or quality of specialized results, they have a tendency to be less dedicated to one supplier.

2.6 A holistic approach to Quality, Price, Indifference and Inertia

Ranaweera and Neely (2003) conscripted an all-encompassing way to deal with customer retention *including product quality perceptions, price, customer lack of concern, and inactivity.*

Service quality- Many studies have uncovered that there is a direct positive connection between perceived service quality and customer repurchasing purposes (Ranaweera & Neely, 2003, Reichheld, 1996; Zeithalm & Bitner, 1996; Zeithalm, 1998). At the point when characterizing service quality, Ranaweera and Neely (2003) follows the meaning of Zeithalm (1998) that product quality is a customer's examination of the product's general prevalence. The writers additionally discover that customers may put a more prominent significance on the quality of the product of service as opposed to the expense of getting that product or service.

Price - Ranaweera and Neely (2003) hold the theory that the better the apparent price is, the greater is the level of repurchase. Be that as it may, few research has been directed on the relationship between price perception and customer retention and consequently, they contend that the further research is required. In their study, they found that there was a close connection between value recognition and customer behavioral.

Inertia - Ranaweera and Neely (2003) further contend that the higher the level of inertial is, the more prominent is the level of repurchase. Ranaweera and Neely (2003) base their meaning of idleness/inertia in their research as the one of Huang and Yu (1999), a non-cognizant type of retention. Huang and Yu (1999) as indicated by Ranaweera and Neely makes a difference between inertial and loyalty by the level of awareness included in the choice to keep on buying from the same supplier. Thus, they contend that buyer research ought not to be constrained in inquiring about cognizant choice but rather likewise non-cognizant ones or client relationships. Gupta *et al.* (1996) in Ranaweera and Neely (2003), contend that the more prominent the degrees of inertia, the more probable the customers are to be delicate to promotions or comparable endeavors by competitors to pull in them.

Customer indifference – Lastly, the writers suggest that the higher the level of customer apathy, the more noteworthy is the level of repurchase. Ranaweera and Neely (2003) contend that the individuals who have positive view of the organizations product or services, furthermore demonstrate a certain level of lack of concern, are the most drastically averse to leave as their service desires are satisfied, and in the meantime, they see no additions in switching. The writers further express that literature on measuring customers lack of concern is fairly rare and has some of the time been utilized as a part of the promoting writing in connection to shopper's state of mind towards depicted as neither positive nor negative.

Further, as the hypotheses gave by the writers regularly overlap one another, the work will choose hypotheses that together contribute to a broad degree with a specific end goal to minimize the danger of ignoring essential variables associated with customer retention. The accompanying factors have been selected as those that influence mining support firms.

Table 2.4: Theories and key elements on the factors influencing customer retention

| Key elements of factors affecting Customer Retention (CR) | Connected Authors |
|--|---|
| -Customer satisfaction | Fornell (1992); Ranaweera & Prabhu (2003), Patterson <i>et al.</i> (1997) |

| | |
|--|---|
| -Customer trust | Ranaweera & Prabhu (2003), Sharma & Patterson (1999), Gounaris (2003) |
| -Level of involvement | Richards (1996) |
| -Extent of ambivalence | Richards (1996) |
| -Attractiveness of alternatives & Switching barriers | Richards (1996); Ranaweera & Prabhu (2003), Sharma & Patterson (2000) |
| -Service quality | Ranaweera and Neely (2003), Sharma & Patterson |
| -Price | Ranaweera and Neely (2003) |
| -Inertia | Ranaweera and Neely (2003) |
| -Customer Indifference | Ranaweera and Neely (2003) |
| -Communication effectiveness | Sharma and Patterson (1999) |

2.7. Theories regarding customer retention strategies

Customer relationship as said already is an area which has picked up an expanded enthusiasm for recent years (Morgan & Hunt, 1994; Gronroos, 1996). As indicated by Reichheld (1996), this has prompted studies concentrating on metrics including, customer retention rates and customer share in customer relationship management otherwise called CRM. Further, the ways that organizations keep their clients are exceptionally subject to the objectives, methods of insight and the connection of every firm and once the firm knows who their clients are, they have a tendency to utilize particular strategies to fulfill the objective and holding the clients (Zeithalm & Bitner, 1996). The processes include value creation, level of retention strategies, monitoring customer relationships, loyalty programs and customer clubs, and effective recovery system.

Value Creating Processes

This is execution of activities that build the value of products, service or even a business profit or market share. Numerous business operators now concentrate on worth creation both in the setting of making better esteem for customers obtaining its products and services, and also for shareholders in the business who need to see their stake acknowledge in value. In request to better comprehend the techniques used to retain customers, certain procedures are included in the value creation.

The capacity of the firm to offer a valid guarantee - Method number one looks at the capability of the firm to offer a believable promise to the customers. The validity of the promise made by the firm is influenced by the firm's reputation, its capacity to present archived accomplishment from past ventures. In this first process, the arrangement of the agreement happens and in addition the assessed endeavors utilized to create suitable levels of desires in the customer firm. Product or service providers have to make promises which they know they can provide. (Lowendahl, 1997).

The set of activities required to deliver the promise - In the second model, the exercises needed to convey the promise is seen, including both the customer and the experts allocated to the task. Here, the firm considers both the real quality of what is conveyed, the view of the quality by all important customer firms' delegates and in addition the proficiency of the conveyance.

The learning from the project - In the last process, attainment from the project and regulating this to the degree that it can be utilized for both enhanced service or product quality and enhanced effectiveness with future customers.

The three level of Retention Strategies

In Zeithalm and Bitner (1996), a system for comprehension sorts of retention strategies proposed by Berry and Parasuraman (1991) is displayed. As can be seen in table 2.5,

the system shows three levels and each progressive level ties the client a touch closer to the firm. Besides, at every level, a more prominent level of customization of the service is needed.

Table 2.5: The three level of Retention Strategies

| Level | Types of bond(s) | Marketing Orientation | Degree of service customization | Primary marketing mix Element | Potential for sustained competitive differentiation |
|-------|--------------------------------|-----------------------|---------------------------------|-------------------------------|---|
| 1 | Financial | Customer | Low | Price | Low |
| 2 | Financial & Social | Client | Medium | Personal communication | Medium |
| 3 | Financial, Social & Structural | Client | Medium to High | Service delivery | High |

Source: Berry &Parasuraman (1991) in Zeithalm&Bitner (1996)

Level 1

At this level the client's essential attach to the firm is through money related motivating force and this can be for example clients needing lower costs for high sum buys or lower costs for those clients who have been in the firm a more extended time (Berry & Parasuraman, 1991). One case gave in the book is the incentive for regular customers. One motivation behind why firms utilize these measures is on the grounds that they are somewhat modest and they empower the firm to accomplish short –term gains. Then again, such motivating don't give long term interest to firms and the authors contend that in spite of the fact that cost and other money related motivators are generally vital to clients, they are not that hard for competitors to imitate as the only customize part of the market mix is the price (in Zeithalm and Bitner, 1996).

Level 2

Methods at this level, binds the clients to the firm through both monetary and social motivators. Here, the clients are seen as customers implying that they are people whose needs and wants, the organisations tries to understand. The services given by the firm are customizes and marketers here discover approaches to stay in contact with their clients, thus creating social bonds with them. Further, the authors contend that social bonds are particularly vital and basic among service and product providers and their customers and additionally individual suppliers (in Zeithalm & Bitner, 1996).

In addition, innovation can help in making social bonds, technologies such as customized client data frameworks which are updated frequently. The authors keep on arguing that connections among the clients of a firm are vital after some time and they keep them from changing to another supplier. It is not ensured that social bonds will attach the client for all time to a firm, in any case it makes it difficult for competitor to mimic than are money related motivations. Likewise, when clients don't have solid incentives to move to another supplier, it is the social bonds that can urge clients to sit tight (in Zeithalm & Bitner, 1996).

Level 3

Models utilized by firms at this level are the most hard to emulate. Other than monetary and social bonds, it likewise incorporates structural bond which are made by giving service that are very different and as often as possible planned directly into the service or product delivery framework for that customer. By tying into one of the frameworks of a client, the firm may spare time and in addition keeping a superior track of the client; be that as it may, clients may expect that binds them an excessive amount to one supplier

will prompt them missing different opportunity and favorable circumstances from different suppliers later on. (in Zeithalm & Bitner, 1996).

2.8 Monitoring Customer Relationships

Zeithalm and Bitner (1996) state that completely observing and assessing of relationship is one of the fundamental strategies utilized by firms to hold clients over time. Two essential methods for checking customer relationships utilized by firms are recognized by the writers as: 'relationship reviews' and 'customer data bases'. These are further normally consolidated with different sorts of marketing exploration instruments, such as trailer calls, dissention checking, and lost-customer surveys, custome visits et cetera. This empowers the firm to make a profile of its customer relationships.

Relationship surveys - Numerous organizations conduct yearly relationship overviews on their clients. The present clients of a firm should be studied in order to create their perceptions on the received value, quality, satisfaction with the product or service, and satisfaction with the service supplier instead of competitors (Zeithalm & Bitner, 1996). A decent and steady correspondence ought to be built up between the firm and its "best" clients, and this could be performed with face to face or via phone.

Customer data bases - Zeithalm and Bitner (1996) contend that an established client information base is a basis to making viable client retention strategies. The information base could incorporate data, for example, the organizations' present clients (their names, their locations, their telephone numbers etc), their buying practices, their income rate, their related expense, and their preferences etc. Likewise when clients leave the firm, data on the end of the relationship ought to be incorporated in the information base.

Loyalty Programs and Customer Clubs

Loyalty programs- For maximizing customer retention program, numerous organizations use relationship marketing instruments, such as loyalty program otherwise called recurrence prize projects and direct mailings (Waarden, 2008). Yi and Jeon (2003) contend that loyalty programs' point is to compensate clients for frequent buys therefore building customer retention.

Bolton, Kannan and Bramlett (2000), contend that loyalty rewards program has gotten to be normal in many businesses. The writers contend that for the most part, the point of such projects has been to build client retention in beneficial fragments by giving expanded satisfaction and value to specific clients. One contention developed by directors for these projects is that, it expanded benefit (Fornell, 1992; Reichheld, 1996).

O'Brien and Jones (1995) state that director's trust that is attractive and in addition expected that the loyalty rewards system is appropriately executed keeping in mind the end goal is to build retention rate. Accordingly, a firm needs to measure the program's impact on future buying behavior. Also, firms need to check that the money related results of the rewards projects surpass the investment made in the projects.

Customer clubs -Numerous service and product providers use customer clubs as a method for retaining their customers over period of time. Blomqvist, Dahl and Haeger (1993) contend that in spite of the fact that this is a typical numerous in service firms, marketing books around the subject is still rare. The authors further contend that customer clubs formalizes the relations with the clients, however not all clients are a piece of a client club, just those that the firm finds as being essential and of quality to put resources into.

The customer interaction effect - The client association impact alludes to the recurrence of the collaborations between the firm and its clients (Stauss *et al.*, 2001). This is

completed by making contact and feedback opportunities. The author further contends that a nearby contact around the customer all through the client relationship life cycle is key in expanding the customer retention rate.

The *customer knowledge effect*- This alludes to the firm expanding its information about the client. The firm acquires detailed data about the individual circumstance, the demand and the interest structures of its individuals directly from the earliest starting point of the connection; this implies that every client contact begins specifically from the enrollment which furnishes the firm with significant data around the individuals (Stauss *et al.*, 2001). This data is then gathered in a worldwide part information base and is continually revamped.

This information base is the ground for the modified and individualized marketing measures utilized by the firm (Butscher, 1998). Butscher (1998) states that the more the client learning impact is more reachable, the more the firm will redesign the information base through different interactions. In this manner, the client interaction impact is a necessity and a precondition for the customer knowledge (Stauss *et al.*, 2001).

The client advantage impact alludes to whether the individuals from the club get a particular point of interest or a particular advantage from the firm. Stauss *et al.* (2001) contend that a client is willing to effectively take an interest in the 'club life' just if their money saving advantage estimation is sure which implies just of the advantages surpasses the expenses. Thus, the firm needs to furnish the club part with offers and administrations that are appealing to the objective gathering and these can be monetary, material or open. The authors further contend that the client communication impact is an essential piece of the client benefit impact when the offered chances for cooperation can be seen as favorable circumstances by the individuals.

2.9 Effective Recovery System

Zeithalm and Bitner (1996) contend that despite the fact that organizations need to 'do it right the first run through' as it is the thing that clients incline toward; it is still very inevitable for disappointments and oversights to happen. It is when slip-ups and disappointments happen that clients as a rule have a justifiable reason motivation to switch suppliers furthermore to advise others not to utilize the product or services. Subsequently, viable recovery gets to be vital in maintaining the relationship. On the other hand if the firm fails to recover, it will deceive the client twice and in this way, a portion of the essentials that are fundamental in making a successful delivery are:

Track and envision recovery opportunities - Firms need to make frameworks which empower them to distinguish disappointments and they additionally need to view this as a chance to save and retain customer relationships as opposed to an issue. It is those clients who complain that is the "friend" of the firm as the individuals who don't complain for the most of them don't return. Just checking the complaint is insufficient, the firm likewise needs to listen to the clients and be dynamic in the looking of potential failure (Zeithalm & Bitner, 1996).

Empower the front line to solve problems - Recovery training may be key for service giving employees. As clients by and large need the issue to be taken care of immediately, it gets to be vital for the forefront representatives to be talented, to have power to take part in effective recovery.

Table 2.6: Hypotheses and key components on customer retention systems

| Key components of customer retention strategies | Connected Authors |
|---|-------------------|
|---|-------------------|

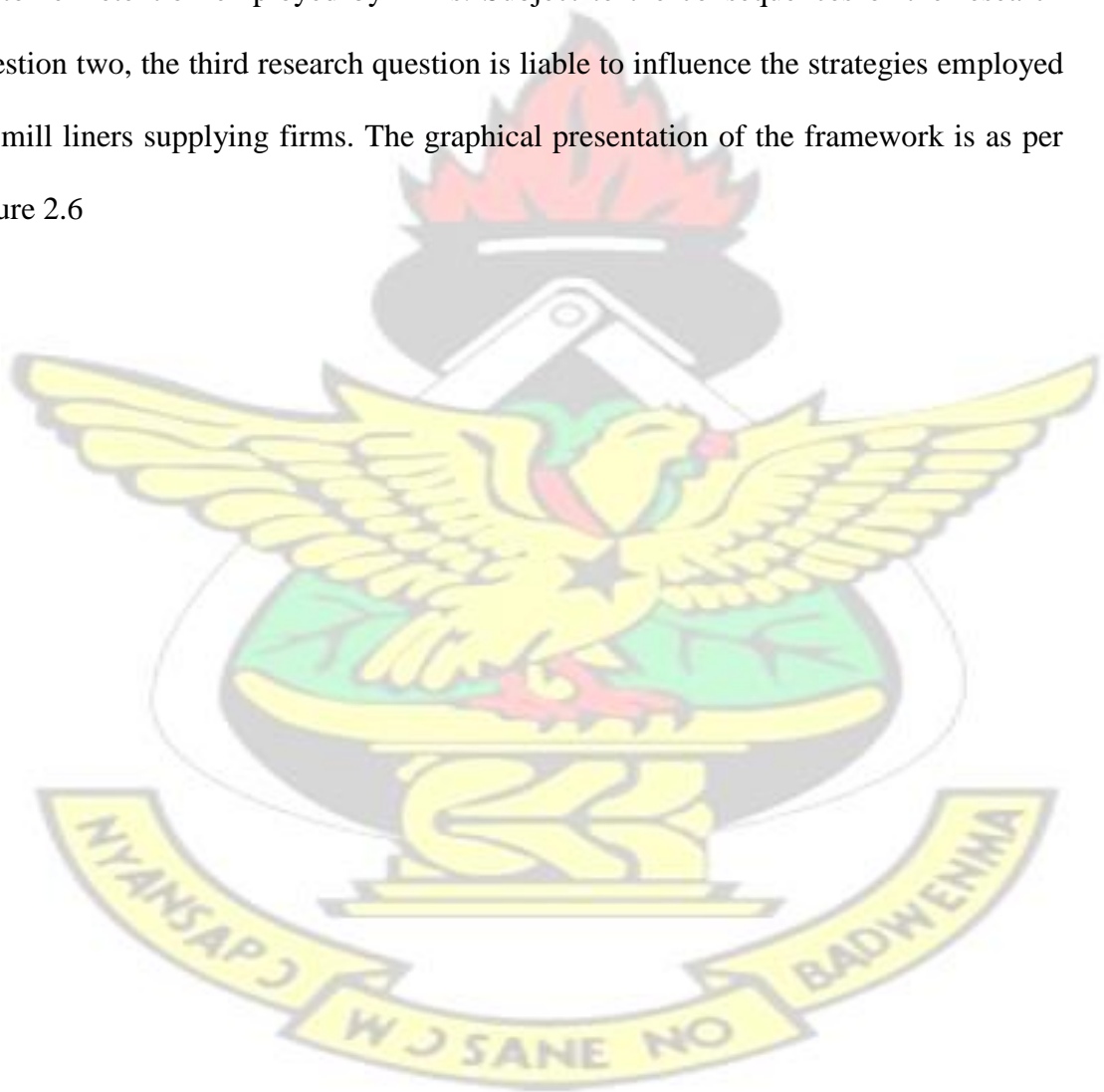
| | |
|--|--|
| -value establishment processes -Ability to sell a reliable promise -Set of actions vital to deliver promise -Learning from projects | Lowendahl (1997) |
| -Bonds binding the customer to the firm - Financial, social & structural bonds | Berry &Parasuraman (1991) |
| -Observing of relationship - Relationship surveys & customer data base | Zeithalm and Bitner (1996) |
| -Effective recovery system | (Zeithalm & Bitner, 1996) |
| -Loyalty programs & customer clubs (rewards increasing satisfaction & value) | Yi and Jeon (2003); Bolton <i>et al.</i> (2000); Stauss <i>et al.</i> (2001); O'Brien and Jones (1995) |

2.10 The conceptual framework of the study

A reasonable system otherwise called a hypothetical structure is characterized by Miles and Huberman (1994,) as "something that clarifies either graphically or in story frame, the fundamental things to be concentrated on the key components, develops or variables-and the assumed connections among them." The accumulated writing from the past section was assessed and the most suitable hypotheses were chosen so as to legitimately answer the expressed research questions. These selected concepts will shape a conceptual outline through which the exact information gathered will be investigated. To begin with, conceptualization of the first research question will be performed where hypotheses concerning the elements impacting customer retention will be shown followed by the conceptualization of the second research question where theories concerning the systems/strategies of customer retention will be viewed.

2.11 The theoretical framework

The reasonable structure demonstrates the interconnectedness between the exploration inquiries expressed in the first part and the conceptualized hypotheses in the second section. Both exploration inquiries expressed in this theory are engaged around the point of customer retention. The second research question looks at the variables affecting customer retention while the third looks at the procedures or strategies of customer retention employed by firms. Subject to the consequences of the research question two, the third research question is liable to influence the strategies employed by mill liners supplying firms. The graphical presentation of the framework is as per figure 2.6



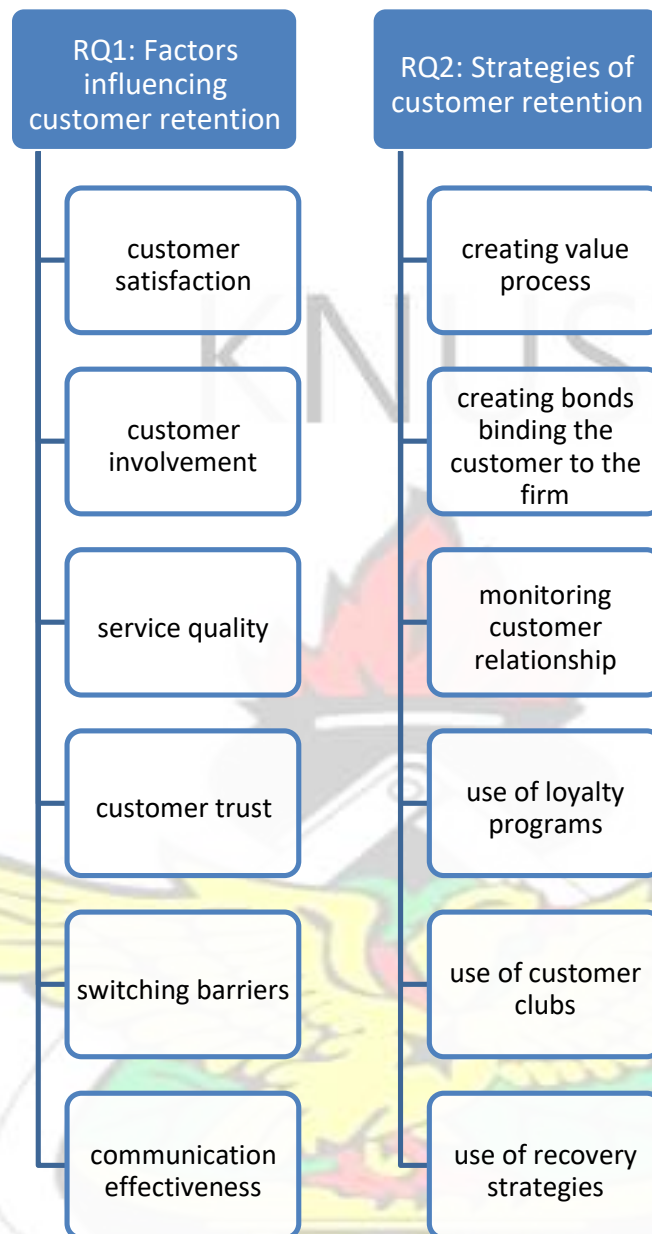


Figure 2.6: Graphical presentation of conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section of the work presents the methodological system used to answer the research questions. The section starts with the purpose of the research, approach to the research

and research strategy. It is followed by methods for sample selection and data collection as well as discussion on the validity and reliability of the thesis.

3.2 Research Purpose

As indicated by Robson (2002), the three reasons of conducting research are; explorative, descriptive and explanative. Explorative research is portrayed as the looking for new knowledge, and enquiring from queries or the getting of some curiosity into new light. Descriptive research is described as portraying of precise profiles of individuals, occasions or circumstances. Explanative research goes for picking up a clarification of a particular circumstance or issue, usually in the form of causative relationship.

Basically, this study is in the form of descriptive, as it looks at what mining support firms really do to retain their customers/clients as well as factors they believed influence the decision of their retention strategies. These factors had been perceived in order to furnish the study with theoretical outline through which the thesis have been considered.

To some degree, the study is also *explorative* in the sense that the reason for this thesis has been to gain superior knowledge of how mining support organizations in the area of mill lining suppliers retain their targeted customers/client. As indicated by Saunders, Lewis and Thornhill (2007), explorative research is real when the purpose is to clear up one's understandings of a particular issue.

3.3. Research approach

As indicated by Saunders *et al.* (2007), the two general approaches to conducting research are through induction and deduction. At the point when information/data are initially gathered and subsequently analyzing the data, a hypothesis/theory is produced, then the approach is of inductive. Then again, if a hypothesis or theory is initially created and later, a research strategy is intended to test hypothesis, the approach is of deductive. The idea through which information gathered will be evaluated is about looking at existing writing on the subject.

Subsequently, a deductive methodology will be connected to this study. Investigating past research on the thesis gave a superior understanding of the factors influencing customer retention and the strategies used by these mill liner companies to retain their customers.

Once the method for the study is known to be deductive, the technique for gathering the data must be chosen. Bryman, Ringer and Björn (2005) contended that a way to deal with gather research information can either be qualitative or of quantitative. Qualitative research regularly lays a greater number of accentuation on words as opposed to numbers and is likewise more inclined to be of inductive and interpreting. Denscombe (2000) contended that qualitative research is ideal when research concerns human activities and behavioral pattern and also when small scale research is conducted.

Quantitative research is the efficient observational examination of noticeable phenomena through factual, numerical or computational technique. The goal of quantitative research is to create and utilize scientific models, speculations and/or theories relating to phenomena.

In qualitative data emphasis is more desirable when managing human activities and small scale research, and this study comprise of collecting qualitative data. The conclusions in the thesis is drawn from the data accumulated from administered questionnaire. Qualitative as the selected research technique should be, is to gather the information expected to answer the research questions.

3.4 Research strategy

Research strategy is “an empirical inquiry that investigates a contemporary phenomenon within its real life context especially when the boundaries between phenomenon and concept are not clearly evident ”(Yin 2003). Saunders *et al.* (2009) categorize research strategies into seven areas: experiments, survey, contextual investigation, action research, grounded hypothesis, ethnography and archival research. This study conversely, utilizes the survey strategy, through questionnaire administration. The aim is to obtain information which are comparable to the research problem.

3.5 Population

Cooper & Schindler, (2001) quoted by Saunders *et al* (2009), population is the whole accumulation of components/element about which we wish to make some conclusions. A population is the focus of which the estimation is being taken. For the purpose of this research, the population consist of all Suppliers and Users of mill liners in Ghana.

The Suppliers considered in the thesis were the eight major companies in the mill liners industry. Almost all these companies are multinational with their branch offices in Ghana. They have very small workforce (population size) as indicated in Table 3.1.

On the other hand, the Users (Consumers) were referring to all the operating mining companies in Ghana. The population size considered were all decision makers which decide who should supply the liners after proper adjudication. The committee normally ranges between five to fifteen members depending on the size of the plant. The detailed population dynamics for the consumers is found in Tables 3.2.

Table 3.1 List of respondents, population size and sample size (Suppliers' Perspective)

| Name of Company | Population Size (Total workforce) | Sample size |
|---------------------|-----------------------------------|-------------|
| Metso Minerals | 30 | 20 |
| Tega Industries Ltd | 10 | 10 |
| Polycorp | 10 | 9 |
| Multotec | 10 | 9 |
| Weir Minerals | 10 | 9 |
| Theojo | 4 | 4 |
| PT Growth | 4 | 4 |
| Norcast (Bradken) | 5 | 5 |
| Total | 83 | 70 |

About 84%

Source: Field Data, June 2015

Table 3.2 List of respondents, population size and sample size (Customers' Perspective)

| Name of the Mines | Sample size |
|--|-------------|
| Newmont Ahafo Gold Mines | 10 |
| Newmont Akyem Gold Mines | 10 |
| Abosso Gold Mines (Goldfields Ltd.) | 8 |
| Noble Minerals Resources, Bibian | 5 |
| Golden Star Resources Ltd Bogoso/Prestea | 10 |
| Kinross Gold Mines Ltd, Chirano | 11 |
| Keengan (Asankor) | 5 |
| Edikan Gold Mine (Persus-Ayenfuri) | 6 |
| AngloGold Ashanti Ltd, Iduapriem Mines | 10 |
| Endeavour Mining, Nzema Gold Mines | 10 |
| AngloGold Ashanti Ltd, Obuasi Gold Mines | 12 |

| | |
|--|------------|
| Gold Fields Ltd, Tarkwa Gold Mines | 8 |
| Golden Star Resources Ltd Wassa Gold Mines | 11 |
| Total | 116 |

Source: Field Data, June 2015

3.6. Sample Size and Sampling techniques

Sampling is the process of analyzing a representative number of individuals or things out of an entire populace (Saunders *et al.*, 2009). As indicated by them, sampling techniques give a variety of methods that permit the researcher to decrease the amount of data required to be gathered by considering only data from a smaller group instead of every conceivable case or components.

It was not possible to survey the whole population for both the suppliers and the consumers, though; efforts were made to select a representative sample that could address the research questions. According to Saunders, *et al.*, (2009) researchers normally use 95% level of confidence and certainty. They further suggested a sample size of 158 for a population of about 250 (that is 63.2%) to attain the 95% confidence level or 5% margin of error. The sample size of each of the groups was such that at least there would be an equal representation among the groups. The selected population was restricted due to the limited duration of the study especially the one for the customers.

When selecting which industry to consider for the thesis, the author looked for an industry in which customer retention was of high significance furthermore in which the suppliers have a close contact with their customers. The industry that was found as most fitting in satisfying these requirements was the mining support industry in Ghana.

After selecting the industry, and the sample size, purposive sampling technique was used to select the respondents. Purposive sampling is a non-probability sampling

technique in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research, Saunders *et al.* (2012). Questionnaires were giving to decision makers in the various mines in Ghana as well as supplying companies in the industry. The study guaranteed that the chose respondents have had a reasonable experience in the mining business.

3.7 Data Collection Instrument

There are numerous strategies for gathering data for research work. An example of such methods are questionnaire, surveys, interviews, observations, documentary analysis, and others. Every information collection instrument is more suitable for a particular research strategy. This thesis utilized questionnaires, as the information gathering instrument or strategy. The survey was created in view of the research questions and objectives, and was intended to incorporate both open ended questions and closed ended question. The open-ended question requested free responses from the respondents, and the closed ended questions permitted respondents to pick one response out of a few.

3.7.1 Sources of Data

As indicated by Saunders *et al.* (2009) there are two principle sources of data. These are primary and secondary data, both of which are applied in this study. They characterize Primary data as information that are collected for the first time for a particular research. This study adopts questionnaire instruments for gathering the primary information from the field. Whereas secondary information are information that are as of now gathered, which has been printed and new researchers can depend on

as a source of data. This is information gathered for a reason other than the current issue. They are existing data made up of publications, like, books, diaries/journals, articles, web sources, and others. In this study, auxiliary information identified with the targets of the exploration were sourced from such sources.

3.7.2 Questionnaire Design

An organized questionnaire was arranged to solicit data on the variables within the selected organizations. The questionnaire were organized after thorough audit of script from diaries, articles, books, official publications, thesis reports, interviews, and websites. The questionnaire was of two parts; Questions in the first part demanded companies' background data. The second part comprised of both clear cut and scale sort questions.

3.8 Data Analysis

All information were coded and analysis was done using Statistical Package for Social Sciences (SPSS) version 20.0 and Microsoft Excel expectations 2013 Software as a tool for summarizing the responses. The data gathered were analyzed and presented descriptively.

3.9 Validity and Reliability

As per Saunders *et al.* (2009), validity and reliability are the key attributes in quantitative research. A well written research will demonstrate how legitimacy and

dependability have been assessed and there are comparable issues in qualitative research.

Validity in quantitative research alludes to the precision and truth of the information/data and discoveries that are delivered. It additionally alludes to the ideas that are being explored; the individuals or items that are being studied; the systems by which information are gathered; and the discoveries that are created (Saunders *et al.*, 2009).

The writers additionally characterize reliability as the consistency and reliability of a measuring instrument, i.e. it is a sign of the extent to which it gives the same answers after some time, through comparable gatherings independent of who oversees it. A dependable measuring instrument will dependably give the same result on diverse events expecting that what is being measured has not changed. To guarantee validity and reliability of the information for the study, data was acquired from both primary and secondary sources. The researcher established sample outline from a survey to guarantee that the method adopted was reliable, valid and consistent. Once more, the questionnaire was completely examined by the researcher, the supervisor, expert in the mining industry and friends, regarding the content and objective of the questionnaire. Later a specific consideration was given to the information/data entry procedure to guarantee rightness of the information.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The previous chapter examined the methodology and sources of data used for the study. This section deals with graphical presentation, analysis and discussions of the data obtained from the field. The data is presented in the form of tables, charts and graphs.

The general objective of the study is to examine customer retention in mill lining industry. Out of this general objective, four specific objectives were derived. To achieve this objective, two different sets of questionnaires were analysed; one set looks at what mill liner supplies do to retain their customers. The second set examined the factors that influence customers to select and retain a particular vendor (supplier). The analysis begins by examining the background characteristics of the respondents

4.2 Background Information of Customers

This section present background information solicited from customers (respondents) which includes the position of respondents, the departments they operate and the number of years their organisations have been in operations. A total of 116 customers of the mill liners users were sampled to represent the customer population. Out of this number, a total of 112 successfully completed and submitted their questionnaires. This represents over 96.5 percent response rate. The response rate is relatively high because the researcher personally administered the questionnaires and explained the purpose of the study to respondents.

4.2.1 Position of Respondents

Table 4.1 shows the position of the respondents in their organizations which gives summary of the results. The result indicates that respondents come from various professions. Some are senior metallurgist, process managers, plant supervisors, production superintendent, plant metallurgist, metallurgical superintendents, and mechanical superintendent, among others. It can be observed from the result that, senior metallurgist constitutes the highest number of respondents, 26(23.2%). This is closely followed by plant metallurgist, 19(17%). The result obtained clearly shows that the questionnaires were completed by decision makers in the various mines. This result gives the researcher the confidence that their responses are reliable and can be used to make reliable and accurate conclusions.

Table 4.1 Position of Respondents

| Position | Frequency (N) | Percentage (%) |
|------------------------------|----------------------|-----------------------|
| Senior Metallurgist | 26 | 23.2 |
| Process Manager | 2 | 1.8 |
| Plant Supervisor | 12 | 10.7 |
| Production Superintendent | 6 | 5.4 |
| Plant Metallurgist | 19 | 17.0 |
| Metallurgical Superintendent | 6 | 5.4 |
| Mechanical Superintendent | 15 | 13.4 |
| Other | 14 | 12.5 |
| No Response | 12 | 10.7 |
| Total | 112 | 100 |

Source: Field Data, June 2015

4.2.2 Departmental distribution of Respondents

Table 4.2 represents the various departments that take part in adjudication of mill liners suppliers in their organizations.

Table 4.2 Departments of Respondents

| Department | Frequency (N) | Percentage |
|--------------|---------------|------------|
| Engineering | 20 | 17.9 |
| Production | 53 | 47.3 |
| Finance | 4 | 3.6 |
| Metallurgy | 17 | 15.2 |
| Processing | 1 | 0.9 |
| Supply chain | 7 | 6.3 |
| No Response | 10 | 8.9 |
| Total | 112 | 100 |

Field Data, June 2015

It can be observed that respondents are from various departments such as engineering, production, finance, metallurgical, processing and supply chain. Majority of the respondents 53(47.3%) are from the processing department while 20(17.9%) are from the metallurgical department.

4.2.3 Average Number of Years in Operations of Respondents mines

Table 4.3 represents the number of years various mines have been in operations. The result shows that the average number of years the selected companies have been in operations is 11 years. The minimum and maximum number of years in operations is 1 and 23 respectively

Table 4.3: Average Number of Years in Operations

| | N | Min | Max | Mean | Std. Dev |
|--------------------------------------|-----|-----|-----|-------|----------|
| Number of Years in Operations | 100 | 1 | 23 | 11.09 | 6.390 |
| Number of Mills | 107 | 1 | 6 | 2.66 | 1.259 |

Source: Field data, June 2015

It can also be observed that the average number of mills used by these companies is 2.6 which is approximately 3 mills per company. Six (6) is the highest number of mills while 1 is the lowest number. The low standard deviation indicates that the number of mills each company has does not considerably deviate from the average number of

mills.

4.3 Background Details of Suppliers Respondents

This segment presents background information solicited from suppliers which include the position (title), name of the company, type of business ownership, total number of workers, type of liners, number of years the business has been in operations in Ghana and their market share. A total of 70 suppliers (vendors) were sampled to represent the supplier population. Out of this number, a total of 69 successfully completed and submitted their questionnaires for analysis. The questionnaires for suppliers were mainly completed by various managers, sales engineers, sales representatives, technicians etc. These respondents were selected based on their knowledge and expertise in the areas examined.

4.3.1 Background Characteristics of Suppliers Respondents

Table 4.4 gives background characteristics of suppliers including type of business ownership and number of workers. Total of 65(95.6%) of suppliers of mill liners are multinational according to the respondent as indicated on the table.

Table 4.4: Background Characteristics of suppliers

| Variable | Classification | Frequency | Percent (%) |
|--------------------------|-----------------------|-----------|-------------|
| Ownership type | Wholly Ghanaian owned | 2 | 2.9 |
| | Multinational | 65 | 95.6 |
| | Sole Ownership | 2 | 2.8 |
| Number of Workers | Less than 5 workers | 14 | 20.3 |
| | 6-10 workers | 35 | 50.7 |
| | Over 10 workers | 20 | 29.0 |

Source: Analysis of Field Data, June 2015

4.3.2 Type of mills and liners supply by Respondents

Table 4.5 presents total number and type of mills in Ghana as well as type of liners supply by these suppliers. In all, there are thirty three (33) mills in Ghana, out of which fourteen (14) are SAG mills, three (3) primary mills, thirteen (13) ball mills and three (3) regrind mills. Ten of these mills utilizes steel, thirteen use poly- met and remaining ten use rubber as liners.

Table 4.5: Type of mills and liners supply by Respondents

| Mill | Total No. | Steel | Poly-Met | Rubber |
|--------------|-----------|-----------|-----------|-----------|
| SAG mill | 14 | 8 | 6 | 0 |
| Primary mill | 3 | 0 | 3 | 0 |
| Ball mill | 13 | 3 | 3 | 7 |
| Regrind mill | 3 | 0 | 0 | 3 |
| Total | 33 | 11 | 12 | 10 |

Source: Analysis of Field Data, June 2015

Figure 4.1 present market share of the various suppliers in Ghana for mill liners. There are eight suppliers in the industry, competing with the thirty three mills. Tega Industries Ltd from India has the highest market share of thirteen (13) representing 39.5%, followed by Metso from Sweden with seven (7) mills representing 21.5%. The next suppliers occupying the third, fourth, fifth and sixth position are PT Growth from Indonesia, Norcast/Bridkin from USA, Theojo from India and Polcorp from Canada respectively.

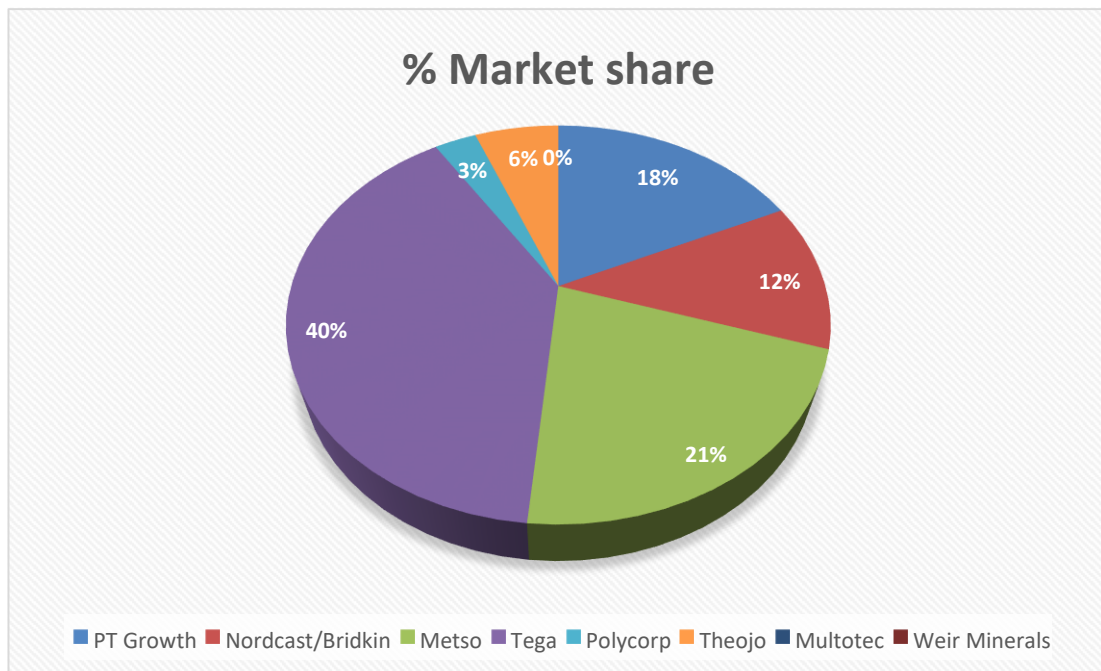


Figure 4.1: Market share for various suppliers

Source: Field Data, June 2015

4.4 Analysis of Research objectives

As stated earlier, the study had a general objective of investigating the retention strategies of mill liner suppliers in the Ghanaian mining industry. Four specific objectives have been calved from this general objective. The first is to examine customer retention strategies employed by mill liners suppliers. The second specific objective investigates the factors influencing customer retention in the gold mining industries for mill liners. The third finds out the factors influencing the profitability of mill liner. The fourth objective examines customer perception of mill liners suppliers. For the purposes of clarity of presentation, the analysis is conducted under these four specific objectives.

4.4.1 Analysis of retention strategies employed by mill liners suppliers

Retaining a customer is very important for organisations. This is because the cost of retaining existing customer is way below the cost of gaining a new one. It is the desire of every organisation to have loyal customers who will always return to do business with them. However, competition coupled with other factors are making it difficult for businesses to retain their customers. In the mill lining industry of Ghana, the competition is even more intense. The responses obtained from the suppliers indicate that almost all of them have in one time or the other lost a customer. Against this backdrop, the first objective of the study examined the retentions strategies employed by mill liner suppliers to keep/retain their customers.

As indicated earlier, almost all the respondents who responded to the questionnaires indicated that they have lost a customer or two before. The reasons cited for the lost of customers include price, ethical practice, issues about quality, service quality, user friendliness, and long delivery time. The result of their responses is captured in Table 4.5.

Table 4.6 Factors contributing to lost of customers

| Reason for the lost of customer | Frequency (N) | Percentage (%) |
|--|----------------------|-----------------------|
| Price | 53 | 76 |
| Ethical practice | 16 | 23 |
| Quality of product | 47 | 68 |
| Technical value | 21 | 30 |
| Service Quality | 49 | 71 |
| User friendliness issues | 12 | 17 |
| Long delivery time | 40 | 58 |
| Non-Compliance with ISO Standards | 8 | 11 |

Source: Field Data, June 2015

Among the various reasons cited for the lost of customers, price happens to be the major reason why customers switch. From Table 4.5, it can be observed that 53(76%) of the respondents stated that price is the main reason why customers leave. It is obvious that customers switch suppliers to take advantage of lower prices elsewhere. The second major reason why customers switch between suppliers has to do with service quality issues. The result shows that 71% of the respondents cited this as the reasons why some customers leave. Other major reasons cited include long delivery time (58%) and product quality issues (68%).

This result was confirmed by the fact that over 60% of the customers stated that they have changed their supplier at one time or the other. This clearly shows that due to competition in the industry, customer switching is a common phenomenon.

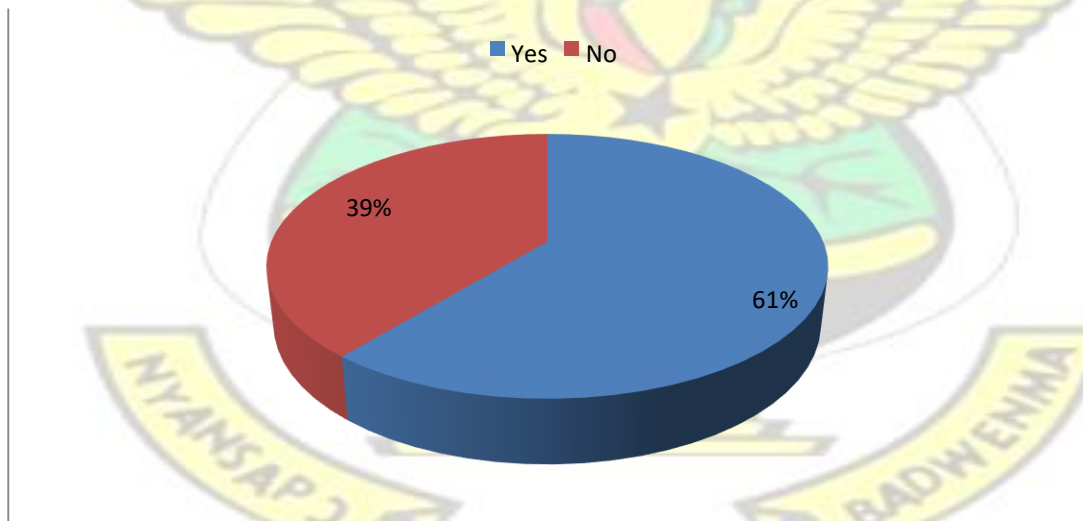


Figure 4.2: Customer switching phenomenon

Source: Field Data, June 2015

Respondents stated unique strategies being employed by their outfit to retain existing customers. Table 4.6 provides a summary of these strategies.

Table 4.7 Strategies to retain Customers.

| Strategy | Number of Respondents | Percentage of Respondents (%) |
|-----------------------------|-----------------------|-------------------------------|
| Value Creation | 17 | 24.6 |
| Flexibility (Price/payment) | 35 | 50.7 |
| Relationship development | 4 | 5.8 |
| Loyalty Programs | 3 | 4.3 |
| Superiority to competitors | 10 | 14.5 |

Source: Field Data, June 2015

The result, as presented in Table 4.6 indicates that the main strategy being employed by the respondents to retain their customers is flexibility in price and payment. The result shows that majority of the respondents 35(50.7) believe that flexibility is the sure way to retain existing customers. The second most important strategy being employed by the suppliers is value creation. Over 24% of the respondents cited this strategy as the unique strategy being implemented. The third most important strategy being employed by the respondents is superiority to competitors. 14.3% of the respondents believe that staying above competition will make it possible for them to retain customers by offering products and services that are superior to the offerings of their competitors. Surprisingly, the use of loyalty program to retain customers received the lowest attention. Only 3 (4.3%) of the respondents cited this strategy as the best unique strategy being adopted to retain existing customers.

The result obtained above provides interesting findings for discussion. The result clearly show that the use of price as a strategy for retaining customers is extremely important in the Mill Lining Industry. The adoption of price flexibility as a unique strategy by majority of the suppliers to deal with retention is not surprising given the fact that price is the major reason accounting for lost of customers in the industry. The use of price

flexibility to create customer loyalty and hence retention is not peculiar to the mill lining industry alone. The use of price as a retention strategy has been applied in the area of banking, transport and manufacturing sectors. In a study conducted by Ranaweera and Neely (2003), the author hypothesized that the better the perceived price is, the greater is the level of repurchase intentions. The test of the hypothesis led them to conclude that there was a direct relation between price perception and customer behavioral intentions.

The result of this study further revealed that the value creation is the second most important strategy being adopted by the suppliers to retain their customers. Value creation involves the performance of actions that increase the worth of product or services a customer receives. Offering products that enhance the satisfaction of customers will go a long way to improve their loyalty and attraction towards the firm. If a customer is able to obtain value for money, the customer is likely to be satisfied with the services of the supplier and hence pledge loyalty to the supplier. The recognition of this fact has led many business operators to focus on value creation in the context of creating better value for customers purchasing its products and services. It is therefore not surprising that substantial number of respondents see value creation as the best unique strategy to retain customers.

Interestingly, the use of customer loyalty programs to enhance customer loyalty and retention received the least support. Only 4.3% chose this strategy as the single most important strategy being used to enhance customer loyalty and retention. Though loyalty programs have been described as best strategies to use to enhance customer retention, O'Brien and Jones (1995), indicate its use is industry specific. They stated that in some industries, the financial cost of the loyalty programs may exceed the

potential benefit associated with the loyalty program. The result of this study may indicate that the cost of implementing loyalty program in the industry is relatively high compared to the associated benefits.

4.4.2 Analysis of the factors influencing customer retention in the gold mining industries for mill liners

A number of factors may influence customer retention in a business. Theoretically, a number of influencing factors have been examined. This study empirically examines the main factors affecting customer retention in mill lining industry of Ghana. This objective was achieved by asking respondents to rank the main factors influencing their decision to retain a particular supplier in the industry. The factors identified include price, ethical practice, consistent quality, technical value, switching cost, service quality, interpersonal relationship, installation time (User friendliness), committed delivery time, and compliance with ISO 1400 standards. Respondents were asked to rank (on a scale of 1 to 10) the factors they believe influence their decision to retain current suppliers. The descriptive statistics of these responses (Minimum, maximum, mean and standard deviation) is presented in Table 4.7

Table 4.8 Descriptive statistics of factors influencing customer retention

| FACTORS | N | Minimum | Maximum | Mean | Mean Rank | Std. Deviation |
|----------------------------|-----|---------|---------|------|------------------|----------------|
| Price | 108 | 1 | 10 | 7.48 | 1 st | 2.012 |
| Ethical practice | 105 | 1 | 10 | 5.47 | 5 th | 2.886 |
| Consistent quality | 108 | 1 | 10 | 7.31 | 2 nd | 2.833 |
| Technical value | 108 | 1 | 10 | 6.31 | 4 th | 2.567 |
| switching cost | 102 | 1 | 10 | 5.09 | 6 th | 2.518 |
| service quality | 109 | 1 | 10 | 6.52 | 3 rd | 2.444 |
| interpersonal relationship | 105 | 1 | 10 | 4.40 | 9 th | 2.793 |
| Installation time | 107 | 1 | 10 | 4.79 | 8 th | 2.343 |
| Committed delivery | 107 | 1 | 10 | 4.88 | 7 th | 2.471 |
| Complying with ISO 1400 | 107 | 1 | 10 | 3.78 | 10 th | 2.745 |

Source: Field Data, June 2015

It can be observed from the result in Table 4.7 that the most important factor influencing customer retention in the mill lining industry is price of the product. This factor scored a mean of 7.48 out of a minimum score of 10. The relatively low standard deviation associated with this factor means that the responses do not deviate significantly from the mean; this means that respondents generally believe that price is the most important factor that affect their decision to retain a supplier or switch between them.

It can also be observed that consistent quality emerged as the second most important factor that affect customer retention in the mill lining industry (Mean=7.31; SD=2.83). Service Quality was ranked as third most important factor affecting customer retention in the industry (Mean=6.52; SD=2.44). The fourth and fifth most important factors affecting customer retention are technical value (Mean=6.31; SD=2.53) and ethical practice (Mean=5.47; SD=2.88) respectively. Switching cost emerged as the 6th most important factor affecting customer retention in the mill lining industry. Factors such as committed delivery, installation time and interpersonal relationship have means less than 5 and are therefore considered as less important in affecting customer retention in the industry.

The findings here clearly show that price is extremely important in affecting the retention of customers in the industry. This implies that suppliers who can offer competitive prices are more likely to retain their customers and also benefit from new customers. The findings is in agreement with the work of Ranaweera and Neely (2003) who indicate that the better the perceived price is, the greater the level of repurchase intentions and loyalty towards the supplier. Service quality is also an important factor that needs to be given priority by the mill liners suppliers if they want to be competitive and retain their customers. This result also corroborates the findings of (Ranaweera &

Neely, 2003, Reichheld, 1996; Zeithalm & Bitner, 1996; Zeithalm, 1998) who found a positive link between perceived service quality and customer repurchasing intentions. The implication of these findings is that mill liners suppliers must endeavor to offer quality but competitive prices for their product in order to retain existing customers.

4.4.3 Analysis of major factors influencing profitability of mill liner suppliers in Ghana.

The desire of every business is to make profit and remain competitive. However, in every industry a number of factors may affect the profitability of individual firms. One of the objectives of the study was to examine the key factors influencing profitability of mill liners suppliers.

Table 4.9: Descriptive statistics of the factors influencing profitability in the mill lining industry

| | N | Minimum | Maximum | Mean | Rank | Std. Deviation |
|-----------------------------------|----|---------|---------|--------|------------------|----------------|
| Degree of competition | 67 | 1.00 | 10.00 | 7.6418 | 1 st | 2.53880 |
| Demand | 67 | 1.00 | 10.00 | 5.1045 | 7 th | 3.04080 |
| Global commodity price | 67 | 1.00 | 10.00 | 7.3433 | 2 nd | 2.48969 |
| Exposition of product superiority | 67 | 1.00 | 10.00 | 5.6716 | 4 th | 2.40194 |
| Substitute products | 67 | 1.00 | 10.00 | 4.2687 | 8 th | 2.15028 |
| Quality products and services | 67 | 1.00 | 10.00 | 6.3433 | 3 rd | 2.66602 |
| Successful product innovations | 67 | 1.00 | 10.00 | 5.3134 | 6 th | 2.38816 |
| Input cost | 67 | 1.00 | 10.00 | 5.4179 | 5 th | 2.57111 |
| Corporate brand name | 67 | 1.00 | 10.00 | 3.9701 | 9 th | 2.76323 |
| Efficient cost management | 67 | 1.00 | 10.00 | 3.7576 | 10 th | 2.46240 |

Source: field data, June 2015

In order to achieve this objective, the views of the mill lining suppliers were solicited.

All but 2 of the respondents ranked the factors on a scale of 1 to 10; where 1 represent

low importance and 10 representing high importance. The factors identified include degree of competition, demand, global commodity price, exposition of product superiority, substitute products, quality of products and services, successful product innovation, input cost, corporate brand name and efficient cost management framework. The result is descriptively presented in Table 4.8

According to the result obtained in Table 4.8, it can be observed that competition in the industry is the most important factor influencing profitability among mill lining firms. On a scale of 1 to 10, this factor has a mean of 7.6 and a standard deviation of 2.53. The relatively low standard deviation indicates that the responses do not significantly deviate from their mean. The second most important factor affecting profitability in the mill lining industry was identified as changes in global commodity prices. These factors scored a mean of 7.34 and a standard deviation of 2.24. From the result, it can further be observed that quality of product/service offered is the third most important factor that influences profitability in the mill lining industry. The fourth and fifth most important factor influencing profitability in the industry are exposition of product superiority and input cost respectively.

The identification of competition as the most important factor affecting profitability in the Mill Lining Industry is not too surprising. The mill liners industry in Ghana, like any other industry, is faced with reduced profit due to competition from local and international front. Competition reduces the market share of firms and hence its profitability. While some level of competition is necessary to enhance quality of product and services offered by individual firms, excessive competition lead to reduction in profit due to low demand for products and services. Excessive competition may also trigger price war in the industry which may force individual firms to slash

prices which may affect their level of profit. From the analysis so far, it can be inferred that competition in the mill lining industry is keen and therefore individual firms must do more to offer differentiated product that will help them rise above the competition.

4.4.4 Analysis of customer perception of mill liner suppliers in Ghana.

Perception of customer towards suppliers is extremely important. Positive perception of customers about the products and services of suppliers is likely to engender positive reaction and hence customer loyalty. The opposite is also true. The fourth objective of the study examined the perception customers of mill lining hold about their suppliers. The areas examined include the quality of products/services offered by the suppliers, their level of satisfaction with the products and services offered by these suppliers, the extent to which the products meet their needs and how willing they are to maintain their suppliers and recommend their suppliers to others. The responses obtained are summarized in Table 4.9.

Table 4.10 Perception of customers about mill liner suppliers

| Variable | Response | Frequency | Percent (%) |
|--|-----------------------|-----------|-------------|
| How well products meet needs of customers | Extremely well | 57 | |
| | Very well | 50 | 50.9 |
| | Somewhat well | 2 | 44.6 |
| | Not well | 2 | 1.8 |
| | Not well at all | 1 | 1.8 |
| Rating of the quality of product/service | | | 0.9 |
| | Very high quality | 56 | |
| | High Quality | 50 | 50.0 |
| | Neutral | 3 | 44.6 |
| | Low quality | 1 | 2.7 |
| Level of responsive of suppliers to customers' needs | Very low quality | 2 | 0.9 |
| | | | 1.8 |
| | Extremely responsive | 56 | |
| | Very Responsive | 50 | 50.0 |
| | Moderately responsive | 5 | 44.6 |
| Likelihood of purchasing the product again | Not so responsive | 1 | 4.5 |
| | | | 1 |
| | Extremely Likely | 66 | |
| | Very Likely | 41 | 58.9 |
| | Somewhat likely | 3 | 36.6 |
| How Likely Are you are to recommend your current supplier to others | Not so likely | 1 | 2.7 |
| | Not at all likely | 1 | 0.9 |
| | | | 0.9 |
| | Extremely Likely | 83 | |
| | Somewhat likely | 26 | 73.2 |
| | Not so likely | 3 | 23.2 |
| | | | 3.6 |

Source: Own Survey 2014

The result, as presented in Table 4.8 show that majority of the respondents believes that the services and products offered by the suppliers meet the needs of their companies. For instance, the result shows that over 96% of the respondents generally believe that the products offered meet their needs. Also the result shows that customers perceive the quality of products supplied by mill liners as very good. The result also shows that

majority of the respondents are very likely to purchase the product again and even recommend their suppliers to other customers.

The respondents were also asked to indicate their level of satisfaction with the products and services offered by the mill liner suppliers. The result in Table 4.10 shows that customers are generally satisfied with the products and services offered by the mill liner suppliers. For instance, the result shows that 73.6% of the respondents are very satisfied with the products of the suppliers; only 3.6% expressed dissatisfaction with the services and products offered by these suppliers.

Table 4.11 Level of satisfaction with the products and services of Mill liner suppliers

| Response | Frequency (N) | Percentage (%) |
|------------------------------------|----------------------|-----------------------|
| Very satisfied | 81 | 73.6 |
| Somehow satisfied | 23 | 20.9 |
| Neither satisfied nor dissatisfied | 4 | 3.6 |
| Very dissatisfied | 4 | 3.6 |

Source: Analysis of field data, June 2015

Perception of Customers regarding loyalty programs

Respondents were asked to indicate the extent to which loyalty programs offered by these suppliers are important to them. The result provides overwhelming support for loyalty programs. Over 98% of the customers sampled indicated that customer loyalty programs are important to them. This result is presented in Figure 4.3. The result means that mill lining suppliers should endeavor to improve customer loyalty programs to attract more customers.

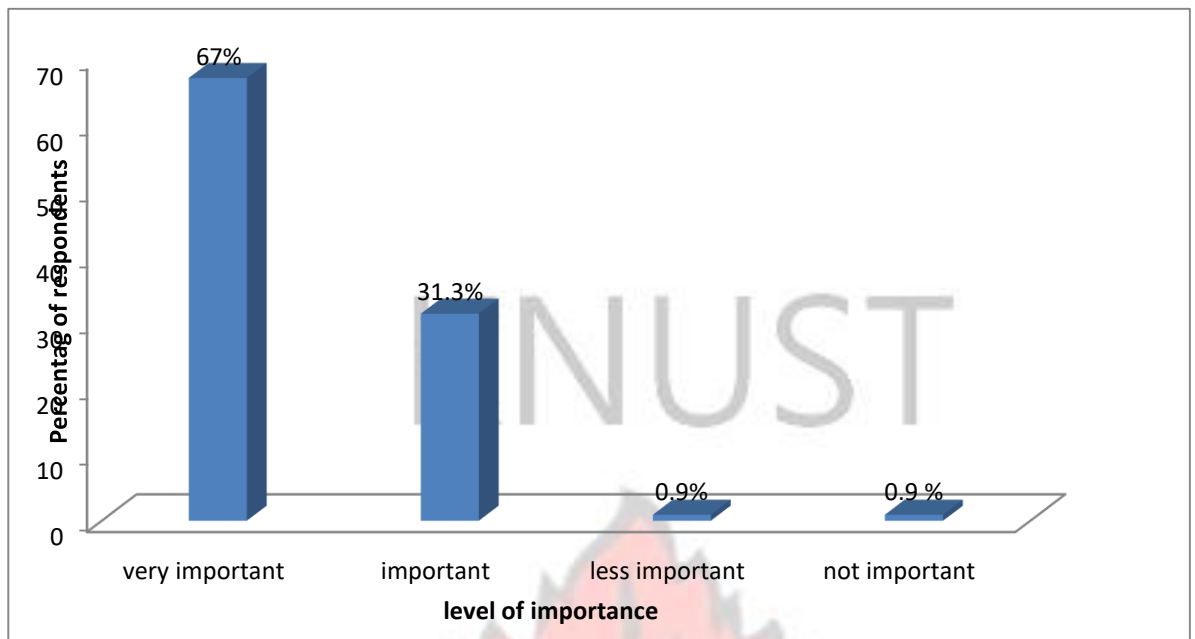


Figure 4.3 Perception of customers regarding loyalty programs offered by mill lining suppliers

Source: Analysis of field Data, June 2015



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This thesis has investigated customer retention in the mining industries with mill liners suppliers as case studies. This chapter presents summary of the key findings from the analysis. In addition, the chapter provides conclusion and recommendation for key stakeholders in the mill lining industry.

5.2 Summary of Findings

Based on the discussion in chapter 4, following are the summary of findings based on the four main specific objectives of the study. The first examined the strategies employed by mill liner suppliers in Ghana to retain existing customers.

The second objective investigated the factors influencing customer retention in the gold mining industries for mill liners. The third specific objective examined the main factors affecting the profitability of mill liners in Ghana.

The final objective examined the perception of customers regarding the operations of mill liner suppliers in Ghana. For the purposes of clarity of presentation, the main findings are summarized along these specific objectives.

The findings revealed that as a result of keen competition in the mill lining industry, customer switching is not uncommon. However, a number of strategies have been instituted by these suppliers to retain their customers. Flexibility in price and payment appeared to be the most important strategy being implemented to improve customer retention in the industry. The result shows that majority of the respondents 35(50.7) believe that flexibility is the sure way to retain existing customers.

The second most important strategy being employed by the suppliers is value creation. Roughly 24% of the respondents cited this strategy as the unique strategy being implemented. The third most important strategy being employed by the respondents is superiority to competitors. 14.3% of the respondents believe that staying above competition will make it possible for them to retain customers by offering products and services that are superior to the offerings of their competitors.

Surprisingly, the use of loyalty program to retain customers did not feature as a major strategy being implemented by the respondents.

The factors identified as influencing customer retention in the industry include price, ethical practice, consistent quality, technical value, switching cost, service quality, interpersonal relationship, installation time (User friendliness), committed delivery time, and compliance with ISO 1400 standards. Ranking these factors, the findings revealed that the most important factor influencing customer retention in the mill lining industry is price.

This factor scored a mean of 7.48 out of a minimum score of 10. The relatively low standard deviation associated with this factor means that the responses do not deviate significantly from the mean; this implies that respondents generally believe that price is the most important factor that affect their decision to retain a supplier or switch between them.

It can also be observed that consistent quality emerged as the second most important factor that affect customer retention in the mill lining industry (Mean=7.31; SD=2.83). Service Quality was ranked as third most important factor affecting customer retention in the industry (Mean=6.52; SD=2.44)

The findings also revealed that competition in the industry is the most important factor influencing profitability among mill lining firms. The second most important factor affecting profitability in the mill lining industry was identified as changes in global commodity prices.

The perception of customers of mill liner suppliers regarding the quality of service offered, level of satisfaction, the extent to which products supplied meets the needs of the customers and their willingness to repeat their purchase were examined. The result generally indicate that majority of the respondents are satisfied with the products and services offered by these suppliers. It can be inferred from the result obtained that the perception of customers of mill liner suppliers can be described as positive.

5.3 Conclusion

The aim of every profit making organisation is to remain competitive and improve its market share. Traditionally, firms have achieved this goal by focusing their attention on marketing strategies that help them to attract new customers and increasing their market share. However, due to globalization, most industries and markets are becoming more and more competitive forcing significant changes in the way firms do business. In order to retain customers in industries characterized by high competition, firms need to meet each individual customer's needs and expectations. Though a number of studies have been conducted on customer retention in the various sectors of the economy, little is known about customer retention in the mill lining industry. In view of this, the study sought to examine customer retention using the mill lining industry of Ghana as a case study.

The views of customers and suppliers of mill liners were solicited on the subject. The findings show that competition is very keen in the sector and as a result various strategies are being employed by these suppliers to retain their customers. Paramount among the strategies being adopted is the implementation of flexible pricing policy to motivate customers to continue to do business with the suppliers. The study further found that price of product and service quality are the main factors influencing customer retention in the mill liner industry. The study is extremely important because it provides some insight into customer retention and makes recommendations for key stakeholders in the industry.

5.4 Recommendations

Based on the findings in chapter four of the study, it was revealed that competition is the most important factor influencing profitability in the industry. Based on this finding, the study recommends that in order to stay above competition and become more profitable, suppliers of mill liners must innovate and come out with products/services that differentiates them from the rest of the competition. The provision of superior products and services will attract more customers which will in turn enhance their profitability.

Secondly, the study revealed that one of the main reasons accounting for the loss of customers to competitors is poor service quality offered. It is recommended that mill lining suppliers must take steps to improve the quality of products and services they offer. For instance, since customers are key to the success of the firm, a wellfunctioning customer service department with well-trained staff should be created to deal with the

concern of customers. This will go a long way to improve the satisfaction of customers in the context of quality service delivery and enhance their loyalty to the business.

Thirdly, the findings of the study revealed that less attention is paid to loyalty program as a means of improving customer retention in the mill lining industry. While it is not clear why mill liner suppliers pay little attention to this issue, the study recommends that these firms should take a second look at customer loyalty programs. A loyal customer is what these businesses need to maintain their market share. Therefore, effort to improve customer loyalty should be seriously considered.

The findings also indicated that one of the factors that motivates the customers to retain the suppliers is payment flexibility. For example, the payment terms for most of the suppliers is thirty days (30) from bill of lading (BoL) date. For suppliers to stay on top and maintain their customers, the study further recommends suppliers to adopt more flexible payment terms such as consignment stock payment system whereby suppliers are paid when customers use their products. In this situation, customers do not lock up their companies' capital in a product they have not actually use.

The next factor which was also predominant for customers to retain the suppliers was price of the products. Suppliers must therefore implement a strategy to maintain the prices of the liners over some times. The study therefore recommends that, supplies must adopt the fixed price agreement (FPA) strategy. In this strategy, the price of the products are fixed over a period of time, say two or three year period. The suppliers are assured of getting the orders from the customers within such period and can hedge their raw materials within same period.

The study further recommends that future studies should examine the correlation between price and customer retention in the mill lining industry. This will provide the opportunity to examine the extent to which price can influence customer retention in the industry.

Finally, future researchers must examine the challenges confronting mill liner suppliers in their quest to enhance customer loyalty and retention.

The logo of KNUST (Kenya National University of Science and Technology) is centered in the background. It features a torch with a red flame, a yellow bird with spread wings, and a shield with a green and yellow design. The letters 'KNUST' are written in large, grey, semi-transparent font across the top.

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APPENDICES

Appendix 1

Research Questionnaire (Suppliers Perspective)

As part of my MBA research thesis at Kwame Nkrumah University of Science and Technology, School of Business, Kumasi, I am conducting a survey that investigates *‘Customer Retention in Mining Industries-Case Study of Mill Liners Suppliers (Suppliers Perspective)’*. It will be appreciated if you could volunteer some minutes of your time to complete the following questions.

It is strictly an academic exercise and thus any data volunteered would be deemed classified and treated as confidential.

Suppliers Perspective

Respondent's Details:

Name:.....

Title/Position:.....

1. Please indicate Company's name and country of origin:
2. Indicate the type of business (ownership)

Wholly owned Ghanaian [] Foreign/Multinational [] Sole Ownership []

Partnership [] Subsidiary [] Agent [] Others []

3. Indicate total number of workers

Less than 5 []

6-10 []

11-15 []

16-20 []

21-25 []

26-30 []

30 and above []

4. Indicate category of workers and number

Expatriate Executive [] Number:.....

Ghanaian Executive [] Number:.....

Skilled Expatriate [] Number:.....

Skilled Ghanaian [] Number:.....

Contract Labour [] Number:.....

5. How long has the Company been operating in Ghana (in years)?

.....

6. Indicate type of Liner(s) supplied currently: Steel [] Composite

[]

Rubber [] Ceramic [] PV []

7. Indicate number of mills per customer that are using your liners currently in

Ghana.

Name of the Customer

Number of mills

Ahafo Gold Mines

Akyem Gold Mines

Abosso Gold Mines

Asanko Gold Inc.

Bibian Gold Mines

Bogoso/Prestea Gold Mines

Chirano Gold Mines

Edikan Gold Mine

Iduapriem Gold Mines

Nzema Gold Mines

Obuasi Gold Mines

Tarkwa Gold Mines

Wassa Gold Mines

8. Indicate if you have ever lost any of your customer(s) to your competitor(s).

Yes [] NO []

9. If your answer to question 8 is yes, indicate the reason(s) for the lost. Select all that apply.

Price []

Ethical practice []

Quality [] Technical

value []

Service quality []

User Friendliness []
Long Delivery time []
Non Complying with ISO 14001 []

10. If your answer to question 8 is yes, indicate how long were your liners used before customer switched to your competitor?
.....

11. Do you wish to regain the lost Customer?

Yes [] No []

12. If your answer to question 11 is no, briefly indicate reason(s).
.....

13. If your answer to question 8 is no, briefly indicate reason(s) for customer retaining you up to now.
.....

14. On average, how often do you supply liners to your customers?
.....

For SAG/PBM Mills: Once in a year [] Twice in a year [] Thrice in a year []

Four times in a year [] More than four times in a year []

For Ball Mills: Once in a year [] Twice in a year [] Thrice in a year []

More than thrice times in a year []

For Regrind Mills: Once in a year [] Twice in a year [] More than twice in a year []

15. Using a scale of 1-10, rate the following attributes why you think Customers choose your firm over others?

Price []

Ethical practice []

Consistent Quality []

Technical value []

Switching cost []

Service quality []

Interpersonal Relationship []

Installation Time (User Friendliness) []

Committed Delivery time []

Complying with ISO 14001 []

16. How long have you been serving this/these customer(s)?

Name of the Customer

Number of Years

Ahafo Gold Mines

Akyem Gold Mines

Abosso Gold Mines

Asanko Gold Inc.

Bibian Gold Mines

Bogoso/Prestea Gold Mines

Chirano Gold Mines

Edikan Gold Mine

Iduapriem Gold Mines

Nzema Gold Mines

Obuasi Gold Mines

Tarkwa Gold Mines

17. Select unique strategy, you think is helping your firm to keep the current customer(s).

Value Creation (ability to sell a credible promise) [] Flexibility to adopt to

customer changing demand [] Relationship surveys and customer data base

[] Loyalty programs and Customer clubs []

Superiority to competitor []

18. Using a scale of 1-10 in order of importance indicate how the following factors

affects profitability of your firm.

The degree of competition []

Demand []

Global commodity price []

Exposition of product superiority []

Substitutes products []

Quality of Products and Services []

Successful product innovations []

Input cost []

Cooperate brand name []

Efficient cost Management []

19. What benefit(s) is/are your company deriving by retaining the existing customers? Select all that apply.

High productivity [] Reduce Input cost []

Referral [] Logistics and Documentation []

Comfortability []

Appendix 2

Research Questionnaire (Customers Perspective)

As part of my MBA research thesis at Kwame Nkrumah University of Science and Technology, School of Business, Kumasi, I am conducting a survey that investigates

‘Customer Retention in Mining Industries-Case Study of Mill Liners Suppliers (Customer Perspective). It will be appreciated if you could volunteer some minutes of your time to complete the following questions.

It is strictly an academic exercise and thus any data volunteered would be deemed, classified and treated as confidential.

CUSTOMER PERSPECTIVE

Respondent’s Details:

Name:.....Title (Position):.....

Department:.....

1. Please indicate Company’s name and location:

.....

2. .How long had the plant been operating (in years)?

.....

3. How many mill(s) exist in the plant?

.....

4. What type of Mill exist in the plant (tick):

SAG Mill ☐ Primary Ball Mill ☐ Secondary Ball Mill ☐

Regrind Mill ☐ Pebble ☐

5. Describe how you call the mill(s) as indicated in question 4 above.

.....

6. Indicate type of Liner(s) used currently.

Steel ☐ Composite ☐ Rubber ☐

7. Using a scale of 1-10 in order of importance for the following attributes, indicate criteria for selecting a particular supplier or vendor?

Price ☐ Ethical practice ☐ Consistent Quality ☐ Technical value ☐

Switching cost ☐ Service quality ☐ Interpersonal Relationship ☐

Installation Time (User Friendliness) ☐ Committed Delivery time ☐

Complying with ISO 14001 ☐

8. Do you compute cost benefit analysis per set of supplies?

Yes ☐ NO ☐

9. Who is/are the current/incumbent supplier(s) of the liner(s)? Select all that apply

Tega ☐ Metso ☐ Multotec ☐ PT Growth Asia ☐ Polycarp ☐

Theojo ☐ Bradken ☐ Holtrade ☐ Weir Minerals ☐

10. How long have you been using the product of this/these supplier(s)? ☐ 3-4 ☐

5-6 ☐ 7-8 ☐ 9-10 ☐ Others ☐

11. Indicate if you have ever changed a vendor.

Yes [] NO []

12. If your answer to question 11 is yes, briefly describe the reason (s).

.....

13. What has been the average period (years) that a particular vendor has been retained?

Less than six months [] Six months to a year [] 1 - 2 years []

3 – 4 years [] 5 – 6 year [] Above 7 years []

14. Do you have a vendor appraisal system on a continual basis?

Yes [] No []

15. How is loyalty programs offered by suppliers important to you.

Very Important [] Important [] Less Important []

Not Important []

16. Does the origin of the product contribute to your decision in selecting the supplier?

Yes [] No []

17. Overall, how satisfied or dissatisfied are you with your current supplier?

Very satisfied [] Somewhat satisfied [] Neither satisfied nor dissatisfied []
Somewhat dissatisfied [] Very dissatisfied []

18. Which of the following words would you use to describe the product of your current supplier? Select all that apply.

Reliable [] High quality [] Useful [] Unique []

Good value for money [☐] Overpriced [☐] Impractical [☐] Ineffective [☐]

Poor quality [☐] Unreliable [☐]

19. How well do your supplier's product meet your needs?

Extremely well [☐] Very well [☐] Somewhat well [☐] Not so well [☐]

Not at all well [☐]

20. How would you rate the quality of your current vendor's products?

Very high quality [☐] High quality [☐] Neither high nor low quality [☐]

Low quality [☐] Very low quality [☐]

21. How would you rate the value for money of your current vendor products?

Excellent [☐] Above average [☐] Average [☐] Below average [☐] Poor

[☐]

22. How responsive have the supplier(s) been to your questions or concerns about their products?

Extremely responsive [☐] Very responsive [☐] Moderately responsive [☐]

Not so responsive [☐] Not at all responsive [☐] Not applicable [☐]

23. How likely are you to purchase the product from your existing customer again?

Extremely likely [☐] Very likely [☐] Somewhat likely [☐] Not so likely [☐]

Not at all likely [☐]

24. How likely is it that you would recommend the current supplier (company) to a friend or colleague?

Extremely likely [] Somewhat likely [] Not so likely [] Not

at all likely []

25. Do you have any other comments, questions, or concerns?

.....

