

Global Sourcing and Its Associated Challenges in the Mining Industry in Ghana

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Abstract: This research investigated the extent, benefits and challenges of Global Sourcing in the Ghana Mining industry. The study looked at the level of outsourcing outside the country, the products that are sourced globally, factors that contribute to the decision to source globally, challenges of global sourcing and above all the benefits that these companies derive from sourcing globally. Three mining companies each representing the large, medium and small-scale mining companies in Ghana were used as case studies. A well-structured questionnaire was sent to these companies to gather primary data. Secondary data from various offices within the supply chain departments of these companies were also used to supplement data obtained from the survey. Using the Statistical Package for Social Sciences (SPSS) software, both the primary and secondary data were analyzed. The analysis included the use of basic descriptive statistics and graphical representations using bar charts, histograms, scatter plots, etc. Even though the literature cites cost as the key factor for Global sourcing, the study showed that for the Ghana mining Industry, product quality is the primary factor. From the study, Quality recorded 45%, Competitive advantage 20%, and combined cost and global outlook recording 16.7% when respondents were asked about the most important factor influencing global sourcing in their respective companies. Differences in the legal frameworks and business environments of foreign sources possess many challenges to the mining companies contrary to popularly observed challenges with delivery and lead time. There are no clearly defined models or strategies for doing global sourcing in the companies as various authors have noted however contrary to the traditional belief that M&M companies conduct Low Cost Country Sourcing (LCCS), the companies under study preferred Best Cost Country Sourcing (BCCS) which recorded 55.2% against 44.8% for both LCCS and BCCS.

Keywords: Global Sourcing, Challenges, Driving Forces of Global Sourcing, Global Sourcing Strategies, Success Factors, Findings, And Recommendations

1. Introduction

Global sourcing as a procurement strategy started off somewhere in the 1980s during the industrial revolution in North America and Europe. With successes that these economies achieved in mechanising their production processes came with a corresponding factor of the high cost of labour. Man power utilization for business process became quite expensive for most business and companies. To reduce the high cost of labour in

order to maximise profit, some of these companies initiated a concept of sourcing for labour in relatively cheaper economies. Then emerging economies like China, Singapore and Malaysia became the destination of most of these big companies in Europe and North America for the products they considered expensive in their respective economies.

Reducing cost in order to maximise profit has been the core idea behind global sourcing from its very foundations to its present state but businesses across the globe are currently looking at global sourcing not only from a cost-savings

perspective but also as a strategic enabler in terms of getting access to specialized skill-sets and achieving scalability. Within Global Sourcing perspective, suppliers are increasingly leveraging a global delivery approach so as to offer services at the optimal price and quality [8]. Conducting business on a global basis has become an industrial norm. Businesses in virtually every industry and companies of all sizes can discover that some part of their supply chain contains a manufacturer in a distant land. In this new and ever-expanding environment, international procurement has become a major challenge, and the success of the process would demand of ability and skills that are not normally needed in the normal domestic procurement. Demand for top, knowledgeable and experienced supply chain planning and import personnel are on the rise to meet these challenges [14].

Products that are sourced by companies come in various forms of goods and services. From the onset of global sourcing, goods or materials were the initial products that were sourced for from foreign countries. However, offshore services like information systems and business process outsourcing have become very common at present [22]. To shape what to source globally there is a very simple but meaningful suggestion that the firm does what it does best and outsource the rest [26]. In as much as cost reduction and quality has become very paramount to global business, it might be out of place to source for a product that a company has full potential of producing in the name of getting a global identity with global sourcing. Some authors however hold contrary opinion to this, since for them despite all the challenges that Global sourcing faces, at the end of the day it is cheaper to source globally than to produce in the local company.

Maxim [22] explains that as a global procurement strategy, it has its benefits and associated challenges which most at times influence business decision to source globally or otherwise. [9] put forward benefits like low cost, higher quality, global identity of business and competitive advantage among others as some of the factors that drive companies to do global sourcing.

However, [21] argue that factors such as quality concerns, delays in the supply, global economic instability, intellectual property theft, exploitation, environmental risks and infrastructural risk among others are the reasons that discourage firms from doing global sourcing. In order to enjoy the benefits of Global sourcing, these associated

challenges needs to be considered; this demands some effective strategies.

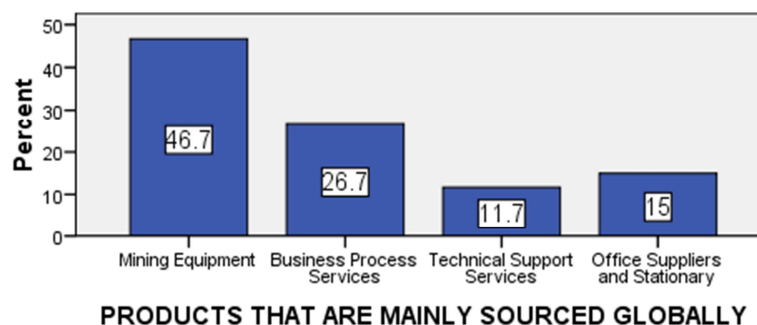
Although both schools of thoughts have their legitimate claims, the decision to source or not should be dependent on organisational needs since for instance the concept of quality can be both a benefit and disadvantage considering the numerous instances that products have been recalled from specific economies or regions.

Newmont Ghana Gold Limited (NGGL), operator of the Ahafo mines in Ghana, is one of the cases for this study. NGGL's overseas purchasing covers about 70% of the total purchasing activities of the company. With a system known as the 'Desk Top Buying'; a practice where buyers are confined to their offices using various telecommunication devices to interface the supply world, the company goes about their global sourcing activities. These activities are closely linked up with agents across Europe, North America, Australia and South Africa, who assist NGGL to source its products. Newmont has formed global alliance with companies like Metso Minerals (Australia) for the provision of mill equipment and maintenance, Mantrac for the provision of haul trucks, maintenance and earth moving equipment like excavators, bulldozers, forklifts etc. Sandvik also provides drill rigs and drill equipment as well as technical assistance to NGGL. NGGL exchange information with their global suppliers when there are new products and they in turn give their recommendations.

2. Literature Review

This research presents a critical review of literature pertaining to the research topic. The researcher employed literature from books, journals, periodicals, newspapers and magazines, academic surveys/researches and company reports. These were in electronic, especially PDF, forms and hard copies. All the literary resources were searched based on their availability taking into consideration copy rights and clearance demands.

The initial lists of references were arrived at based on resources ability to address general issues in sourcing, global sourcing, procurement and supply chain management. The final references list was based on their ability to address topics related to the research questions and the objectives of the research.



SOURCE: Field data 2021

Figure 1. Products that are mainly source globally by mining companies in Ghana.

Aside products, these foreign sources also give training services to Newmont Gold Ghana Limited.

Sourced Products

The Figure 1 shows the major products and services that are sourced globally by mining companies in Ghana. Thus, mining equipments, business process services, technical support services and office supplies and stationary constitute the main products and services that are sourced globally. From data, mining equipment like bulldozers, haulage trucks, rigs among others are the major products sourced globally. This may be attributed to the fact that these equipments are all produced outside the country. This is closely followed by business process services like computer software (e.g. ERP) and standard operating procedures. This confirms the point of Maxim [22] that the scope of global sourcing is gradually being shifted from just goods and products to include various forms of services.

Office supplies and stationary are also sourced globally by mining firms in Ghana. From the data,

technical support services for maintenance and other operational duties is the least item that is sourced globally in the mining industry in Ghana.

Global Sourcing and Local Sourcing Among Companies

Table 1. Sourcing Trend of the Companies under Study.

	Global Sourcing	Local Sourcing	Total
NGGL	70%	30%	100%
AGAL	60%	40%	100%
PSGL	50%	50%	100%

Source: Field Data, 2021

3. Global Sourcing Strategies

Globally, Carey [6] has noted that when it comes to an integrated global sourcing and supply strategies, companies worldwide are not really skilled or matured in it. In a study by IBM [19] it was realized that less than half of the metal and mining companies that participated in the study had such well-planned strategic systems. In the wake of such challenges, appropriate strategies need to be implemented to reap benefits. With the increasing exposure of firms to global risks, various risk management practices are being put in place by stakeholders to ensure the best of benefit from global sourcing [13]. Regardless of one's location, Elkins, Kulkarni and Tew [13] suggest strategic sourcing and negotiations management whilst [21] recommends that different sourcing strategies need to be developed with much insight of the demand and supply characteristics of the product or service. Properly defined strategies are designed in order to identify new capabilities that off-shoring could give directly like freeing up of internal resources for higher value added work [3]. Specifically, this review would consider the 'Low-Cost Country Sourcing' (LCCS) and 'Best Cost Country Sourcing' (BCCS) strategies. While LCCS might be seen as putting much attention on the cost factor, BCCS lays emphasis on other factors such as quality and other core ideals of a company.

3.1. Low-Cost Country Sourcing Strategy

The online business dictionary defines 'Low-cost country sourcing' as a procurement strategy in which a company uses foreign institutions with lower wages to produce resources for manufacturing by finding companies that operates on leaner budgets than domestic operations. With this, a company may be able to reduce operational expenses [5]. As a global sourcing strategy, it is known to give great advantages like growing revenue and cost saving. It comes as no surprise that about 60% of manufacturers in research conducted by the Aberdeen Group as using it for global sourcing [10].

For 'Low-Cost Country Sourcing' to be conducted to meet institutional objectives, [25] put forward this outline as a process to be followed for conducting LCCS.

- 1) There is the need to profile a sourcing group that includes understanding internal spending, total cost, specifications, external global supply marketplace, and global trends.
- 2) There is the need for an improved analytical capabilities, financial forecasting, and scenario modeling in order to capitalize on the opportunities created by the marketplace in the form of commodity strategy development.
- 3) A development of the supplier portfolio should be done. The criteria should consider transportation, cost of quality, additional inventory while in transit, additional safety stocks, expedited shipments, warranty claims, visits to supplier, currency risks, country risks, duties, taxes, connectivity costs.
- 4) This is followed by a quoting process. Information requested should be specific on lead-times, safety stock requirements, in transit volumes, transfer of ownership, currency, and market volatility requirements, assurance of supply, and quality expectations and ramifications.
- 5) Negotiations should be conducted taking into consideration the uniqueness of the suppliers' country of origin. Strong relationships must be built before closing a deal and this takes time.
- 6) Once negotiations are finalized and a supplier is selected, there is the need to integrate the supplier into operations. The supplier needs to be known internally and this should involve key stakeholders in the organization such as engineering, logistics, production control, inventory management, and manufacturing.
- 7) Continuous improvement of the supplier is the last step of the strategic sourcing process. Once a supplier is supplying goods or services, it is not enough to stay at status quo; the supplier should continuously look for ways to improve their business as well as their supply chain's business. An example of this is to implement lean into every operation which is a method to eliminate waste, defects, noise, and excess time. Create a value stream map to make sure that every step of the process is managed effectively.

Common examples of globally-sourced products or services using 'low-cost country sourcing' as a strategy include: labor-intensive manufactured products produced using low-cost Chinese labor, call centers staffed with low-cost English-speaking workers in the Philippines and India, and IT work performed by low-cost programmers in India and Eastern Europe.

Although many companies use this strategy, there were quite a number of challenges with it. Crnic, Kleemann, and Seider [10] gave a summary of most of the risk of doing LCCS by noting that working in a low-cost country often adds complexity to a company's operations. The risks inherent therein include: inflexible customs practices, Intellectual property protection threats, foreign exchange controls, business licensing limitations, political or joint-venture partner interference, and project management challenges associated with migrating manufacturing operations effectively.

3.2. Best Cost Country Sourcing (BCCS) Strategy

Best cost country sourcing is a strategy that does not solely rely on cheap labour as the source for sourcing but rather on the overall quality and competitive urge of product and services. Dutzler, Phillips, Mansson and Parthasarathy [11] in their book "*Best-Cost Country Sourcing a Next-Generation Approach*" outlined these points as factors to consider across all levels of BCCS; maturity which they considered as novice, progressing and best in class.

For BCCS to be conducted properly, companies need to consider the following:

1) Create an overall supply chain concept

Thus companies or institutions need to identify the appropriate products, supplied components, and portions of the value chain that should be moved to BCCS and create a clear concept and philosophy for how BCCS should evolve over time. In the initial stages of establishing a best-cost country strategy, the option of using agents as go-betweens with best-cost country suppliers can also be explored. But the plan should be to eventually move away from intermediaries and work directly with the supplier.

2) Develop world-class suppliers

Suppliers in best-cost countries need support to continuously improve their performance (in terms of cost, delivery, and quality). Leading consumer goods and retail companies are investing in building supplier development teams in best-cost countries. The kind of support offered by the teams tends to vary with the maturity of the supplier and the stage of the relationship.

3) Build the organization with distinctive capabilities

Multifunctional teams are an indispensable prerequisite to developing suppliers in best-cost countries. Teams should consist of the following types of specialists and capabilities: purchasing specialists, product engineers, quality engineers, supply chain and logistics specialists, development specialists, and green specialists.

4) Optimize the integrated supply chain

The full potential of 'best cost country sourcing' is often

reached through optimizing the entire supply chain and finding innovative ways to deal with long lead times and higher storage and distribution costs.

5) Use BCC Supplier Competence for Product Development

Engineering talent is available in large numbers in best-cost countries. It is important to tap into this talent pool to drive innovation in product development, reduce product development costs, and minimizes time to-market.

6) Manage Supply Market Dynamics

The dynamism of emerging economies makes it necessary to continuously investigate the competitiveness of BCCS efforts and explore potential new supply markets. Consequently, to remain best in Class, a company must commit to a series of short- and long-term activities that will ensure it responds effectively to rapid changes in emerging markets.

According to Dejuan *et al.* [11], because of some of the prominent risks of 'low-cost country sourcing' as indicated earlier, most companies are being advised to shift the focus from LCCS to best cost country sourcing (BCCS). Writing for BrainNet, Voigt [32] insisted that cheap labour as it is realized in LCCS is better suited to cheap products and cheap services and not necessarily an advantage for the premium products that industrial countries are known for which invariably meant the support of BCCS as against LCCS. Some writers are however of the opinion that BCCS although is good might not be good for all companies. Udal [31] explains the relationship between risk and returns and indicates that BCCS for some types of companies would involve hedging risk by looking for lower overall

costs (rather than lowest hard costs) in a country where things like economics, trade, supply, materials, and other things are more predictable which might not be good for the growth of the company.

Be it LCCS or BCCS the core objectives of the company in question needs to be taken into consideration. The primary goal for conducting global sourcing is the cost factors as we have seen in the course of the review. If cost holds that basic importance, then there is a case for LCCS. Moving above that to other factors that are worth considering like quality, and ecology, there is the need to consider BCCS too as a strategy. When both parties use the risks factors as points of arguments, it would be worth noting that both strategies are not devoid of risks but the ability to implement various managerial roles to curtail these is what might be of significance to the success of the strategy.

4. Driving Forces of Global Sourcing

According to Porter's generic strategies, the competitive strategies can be divided into low-cost strategy and product-differentiation strategy. Both of these are highly related to global sourcing strategy. There is no doubt that the search for lower costs has been the greatest driver of global sourcing. Other factors include a search for higher quality, greater material availability, and access to product and process technology [43].

These factors can be classified as follows: "Pull" driving force and the other one is "Push" driving force (Qi, 2007). In essence, "Pull" factors of global sourcing are negative and passive, which means that one business is obliged to pursue global sourcing because of the pressures from international competition and high-demand of customers. However, "Push" factors of global sourcing are positive and voluntary, which means global sourcing is a main part of business strategy and it can help the business to be continuously competitive (Kotabe, 1998). The "Push" factors of global sourcing evolve from the "Pull" factors of global sourcing.

In order to win the preference of consumers, each enterprise is striving to provide cheaper and more distinct products for the potential consumers (Kotabe, 1998). From this point of view, the demand of consumers is a main reason driving the companies to implement the global sourcing.

Global sourcing strategy is decided upon by the head administrator of companies, and global sourcing strategy is the main significant direction of competitive strategy for companies. Therefore, global sourcing should be completely coordinated with other business strategies. To be more accurate, the purchasing activity just focuses on functional optimization, but not the whole strategic optimization (Swamidass, 1993). In other words, the functional optimization does not always result in the success of the whole business operation. Hence, the global sourcing strategy can help businesses to be more competitive only insofar as the strategy can be adopted within the framework of the whole competitive strategies of businesses.

The "Pull" factors have deeply affected the development of global sourcing in the past 30 years, and this effect will continue in future global sourcing activities. Multinational companies will suffer the endless pressures from the global competition so that they have to make use of global sourcing to counteract these pressures (Qi, 2007). However, the global sourcing based on the "Pull" factors usually result in the passive and negative purchasing strategy, namely concentrating on searching for the cheapest supply resources.

Under the global strategy caused by "Pull" factors, most managers consider the global strategy as an approach which can achieve the low-cost advantages in a short time, instead of a sustainable competitive advantage in the long run. For companies to maintain a sustainable competitive advantage, a long-range perspective is required [24]. The buyers usually emphasize the current purchasing cost and product quality, instead of the long-term total cost and improving quality-control measures. This passive and negative mode of procurement is always decided by the low functional departments and these decisions are isolated from other departments in one business. This means these decisions about procurement are just at the level of function and tactic, instead of being part and parcel of a whole coordinated strategy.

Under the global sourcing strategy based on the "Pull" factors, the relationship between buyers and sellers is just a normal trading relationship (Qi, 2007). With the objective of ensuring marketing efficiency, the buyers usually purchase the same kind of materials or products from several suppliers.

When they fail to purchase the materials or products from one supplier, they can obtain them from another supplier as a substitute. When one supplier leaves the buyer unsatisfied, they can change to another.

This relationship is quite different from the long-term cooperative relationship which focuses on the both development of buyers and sellers. Hence, the strategy based on this kind of relationship cannot get the total advantages of global sourcing. With the improvement of global purchasing activities, companies obtain more purchasing experiences than before. Because of this, the motivation of global sourcing is no longer just for business survival, but for ensuring the competitive advantage in the aspects of cost, quality, technology, and others.

Nowadays, global sourcing has been considered by more and more enterprises as positive strategic activities under the pressures from global competition. Because it is an integration and co-ordination of procurement requirements across the worldwide business units, looking at common items, processes, technologies, and suppliers (Stevens, 1995). According to the study of John Stevens, several main driving reasons for global sourcing are concluded as follows:

1) Materials are not available domestically

Due to reasons of geography and technology, some domestic manufacturers may be unavailable to supply specific materials. Moreover, probably they are incapable of meeting the required delivery time or supplying some materials due to their limited technical capabilities.

2) Unsatisfactory quality of domestic products

The quality of products obtained from the domestic market may not meet the requirements of buyers. The quality of domestic goods may not be sufficient for the manufacturers to sell their products to international markets where higher standards may apply. In addition to the quality of the goods themselves, maybe the supplier cannot provide satisfactory warranties or after-sales services to the manufacturers.

3) Price

Especially in developed countries, the materials or products supplied by domestic suppliers may be too expensive, and they can obtain the same goods with a cheaper price elsewhere around the world.

4) Technology

Especially in developing countries, some enterprises may have no choice but to source internationally; otherwise, they cannot get access to world-class levels of technology.

5. Success Factors for Global Sourcing

According to (Vernon, 1996), an important criterion for the success of a project is a high level of standardization of the product to be sourced. The four most important factors that emerged from a study undertaken by Trent et al, [43] among purchasing managers, when they were asked which in their view were the most important factors in successful Global Sourcing were:

1. Sufficiently qualified staff to support the Global Sourcing process.

Important characteristics which staff must possess include: analytical skills, an understanding of, and the ability to deal with, a global economy, and skills in negotiating with people from different cultures.

2. Availability of all (or almost all) the required information.

An important aspect here is that all parties around the world have ready access to the information required for the negotiations. A characteristic of a good purchasing database is that it is well structured and contains all the relevant information. According to them, the most important information includes: a list of all the existing contracts and suppliers, reports about the capabilities and performance of suppliers, consolidated purchasing volumes at company level, information about potential new suppliers, and the demands placed by internal customers on the products/goods to be purchased.

3. Identifying suppliers on a worldwide scale.

In their research Trent *et al.*, [43] the purchasing managers stated that identifying the right suppliers is one of the most difficult tasks for purchasers. This is particularly difficult in regions such as Eastern Europe and Asia. For this reason, purchasing managers often tend to maintain their relationships with existing suppliers when they are looking for suitable sourcing partners.

4. Staff who have enough time to define a worldwide sourcing strategy.

The research shows that having a Global Sourcing strategy is a factor that has a great deal of influence on the success of a sourcing project. However, formulating such a strategy takes a lot of time, and it is essential that this is done carefully.

A new research project carried out in 2006 by Monzcka, Trent and Petersen looked at the success factors for Global Sourcing. As well as the factors referred to above, this research also identified a number of new factors that influence the success of a (global) sourcing project:

1. A well-defined plan that supports the Global Sourcing process.

A clear and carefully formulated sourcing process is undoubtedly one of the most important factors influencing the success of a Global Sourcing project. A well-defined process helps the organization to overcome social, cultural and legal differences between the various locations. It helps to align the efforts of all staff within an organization, and it avoids duplication of work.

2. Centrally coordinated/managed decision-making processes.

It is important that all strategically important decisions are taken at a central level. This has the following advantages: standardization and consistency of the sourcing process, greater involvement of suppliers in the development phase of a product or service, better relationships with suppliers, and higher satisfaction of customers, stakeholders and managers with the sourcing process.

3. Decentralized coordination at operational level.

Decentralized coordination at operational level probably

results in lower Total Cost of Ownership, lower inventory levels right through the supply chain and higher overall performance for the customer.

4. Real-time communication tools.

Because complex processes like Global Sourcing demands much and clear communication, while the distances between the involved parties are often large, it is very important that the right communication tools are available to enable effective clear and effective coordination.

5. Sharing information with suppliers.

The research shows that companies that share supplier performance data with their suppliers are often able to achieve lower purchasing prices of products. This data may relate to aspects such as delivery times, quality, flexibility and prices of products. Supplier ratings relative to direct competitors can also have beneficial effects.

6. Availability of the right tools.

This factor relates to the four factors identified in the research by Trent *et al.*, [43] (referred to above).

6. Challenges and Risks of Global Sourcing

There have been countless instances where products are recalled from global markets raising quality concerns. With all the great advantages that are inherent in global sourcing, one cannot lose sight of inherent risks and challenges in every process Hayes [16]. Risks and challenges of global sourcing are noted as one of the greatest strategic challenges that pose threats to purchasing and supply managers globally. Challenges of global sourcing come in manifolds. Jin and Farr [22] identified challenges such as cultural and business practice differences, language barriers, transportation delays, increased lead time, inventory management, logistics and political and economic stability in respective countries. Cho and Kang [9] group them into four factors being logistics, regulations, cultural differences and country uncertainty. In relation to metal and mining companies, IBM [19] indicated unreliable delivery, longer lead time and issues with new sources. The challenges above influences the sourcing priorities since their neglect would compromise the delivery and quality of sourced goods and services. It can be realised that although specifically individual companies might have their unique challenges, from the broader perspective, the challenges indicated above might cut across borders. The review would specifically group these challenges into foreign source, supply/delivery and management challenges.

6.1. Foreign Source Challenges

As noted by Hultman *et al.* [18] every country has their unique business environment, legalities, politics, environmental and infrastructure risks that needs to be understood if global sourcing is to be handled properly. Practices found in respective countries can hold great challenges to the global sourcing process. Regulations such as quotas, tariffs and trade restriction legislation can hamper

the progress of global sourcing [22]. For Asaf, Bonincontro and Johnsen [2] once one decides to source in emerging markets like China, India and Eastern Europe they put themselves at much greater risks or challenges. The threat to intellectual property theft as is most at times the problem in China and adherence to rules and regulations in the United States of America after the 9/11 terrorist attack are some of the inevitable challenges that global sourcing poses.

These factors are challenges a company might not so much have control over since they are outside the jurisdiction of their home countries. It can be realised that some of the factors keep on changing, for example tariffs and political policies while some might be considered institutionalised although they might be dynamic example being language or culture and legal frameworks. Differences in these factors have great implications to the success of global sourcing. When there are differences in the legal framework of countries for instance, great difficulties might be present if an activity that is legal in a country might be illegal in the other.

6.2. Supply/Delivery Challenges

Supply/Delivery challenges comprise all the challenges that are related to the supply of the product or service from the sourcing country and its delivery to host country. These challenges can be seen in situations of order-to-delivery cycles, increasing transportation infrastructure failure, high working capital requirements, trade finance complexity, and stringent import regulations (GTNEXUS 2007). Factors such as unreliable delivery, longer lead time, the logistical movement and lead time stability issues in India and the lack of responsiveness and flexibility in relation to suppliers in Eastern Europe as indicated by Asaf, Bonincontro and Johnsen, [2]; IBM [19] and Jin and Farr [22]. These challenges are confirmed by Carey [6] who indicates that these challenges are part and parcel of Global sourcing and the fact is that any effective global sourcing process is not devoid of risks.

The challenges under these categories become very evident when a product or services needed to achieve an organisational objective fails to reach the company at the estimated time. This can cause a break in operations and would lead to associated problems that might not benefit the company if not properly handled.

6.3. Management Challenges

Challenges with global sourcing can also be considered from the management and institutionalisation of global sourcing perspective. Most companies do not have strong institutions to manage global sourcing. According to Carey [6], the effectiveness of most companies needs to be worked at since they have countless deficiencies. To be on top of the ladder of competition, Elkins, Kulkarni and Tew, [13] suggest that supply managers concentrate on contribution to top-line growth and innovation aimed at ensuring strong management instead of concentrating on cost for instance. This according to Dejuan *et al.* [11] might require a comprehensive strategic vision and a well-informed management philosophy that will shape the whole process of global sourcing within a company. With the strong indication that metal and mining companies makes controlling cost the outmost concern to the extent that sometime they neglect other important performance drivers of global sourcing [19], there is a need for such companies to pay attention to building a strong global sourcing management team. Management practices of companies are shifting from managing process, since most of them are outsourced, to the management of results which requires new competencies and the need to manage change [20].

6.4. Finding a New Source

Finding a new source, as a management activity, can be a very challenging and demanding duty of management. There is a caution and recommendation that there is nothing like a perfect supplier so companies are supposed to limit their expectations when trying to locate foreign sources. Evaluating a supplier invariably leads to the evaluation of other associating factors that exist in the company and country as a whole because no supplier operates in a vacuum. Factors such as landed cost, quality, innovation, the market place, the technology and their experience curve need to be analysed [1]. Although these influential factors have been identified in the wake of finding a foreign or domestic source, studies show that for most companies, the most important factor with choosing a source is cost Jin and Farr [22] which from stated reason as realised need to be reconsidered.

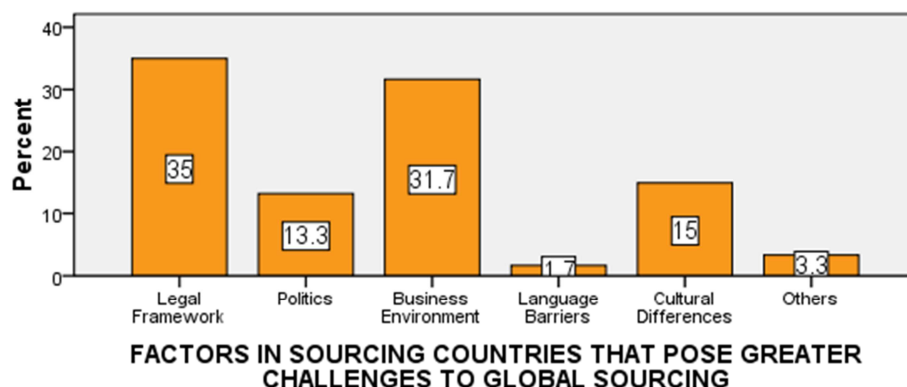


Figure 2. Challenging Factors in Sourced Countries.

Figure 2 above indicate that the main challenge that firms in the mining industry face for sourcing for their supplies globally is that of the legal framework operating in the sourced country. From data, 35% chose legal framework of the sourced countries as their biggest challenge. This is closely followed by the business environment with 31.7%. Cultural differences and politics recorded 15% and 13.3% respectively with language barrier and other challenges representing about 4%. As Hultman *et al.* ([18], noted these factors needs to be handled properly if companies would achieve their objectives of conducting global sourcing.

7. Conceptual Framework

Global sourcing has become an indispensable factor in international business. To be global players in the ever-increasing business world of globalisation, various industries are patronising global sourcing as a procurement and supply chain strategy. The concept behind this study is basically to investigate global sourcing in one of the industries that adopted global sourcing at its early stages; the Metal and mining (M&M) industry. Because of the nature of their operations, the industry quickly adopted 'low-cost country sourcing' (LCCS) with the basic intention of reducing the cost factor of their productions [19]. With the evolution of global sourcing, it has become evident that the cost factor is not the only benefit that influences the decision to adopt global sourcing because inherent in it are other equally important potentials that cannot just be overlooked. With those who have engaged in it and proven successful, it has the effect of influencing the competitive advantage of companies since it directly affects prominent factors like quality, dependability, flexibility and innovation (Birou and Fawcett 1993). According to Jeffres *et al.*, [20], it is not so much an option to ascribe to global sourcing since its benefits are evident as a global company but the decision lies in how best one can reap its full potentials despite the inherent challenges.

Global sourcing is a strategic sourcing strategy that effectively broadens the scope of the procurement process to include companies that operate in other countries. Strategic sourcing is the internal business process used to manage the bidding and vendor selector process. Procurement is also known as purchasing and refers to the laws surrounding fair and equitable bidding opportunities.

Global sourcing is different from international buying when their scope and complexity are compared. It entails proactively integrating and coordinating processes, designs, common items and materials, technologies and suppliers across worldwide purchasing, engineering, and operating locations Trent *et al.*, [43]. Global sourcing is not only a starting point of logistical activities, but is also a set of managerial activities. The object of said activities is to accomplish the goals of manufacture or sale, which includes the choice of suppliers, confirming the quality and quantity,

negotiating the price, and so on. The process of global sourcing is a long-term strategy, which includes the evaluation and selection of foreign potential suppliers, while international purchasing involves daily activities supporting manufacturing and services departments. In order to advance from the international purchasing stage to global sourcing, the purchasing department must be elevated to a position where it can make more strategic decisions for the business.

The use of global sourcing has been the driving force behind the development and expansion of the global economy. Including suppliers from around the world in the bidding process for large contracts reduces prices and increases competition. The creation of this type of infrastructure allows firms to create subsidiary offices in locations around the world. There are three main industries that are ideal for global sourcing: manufacturing, skilled services and telephone call centers.

8. Reasons for Global Sourcing

The reason for which most companies do global sourcing is basically inherent in the benefits that global sourcing gives to these companies. According to Maxim [22], some of the perceived benefits that companies derive from global sourcing may include the following: low-cost sources, higher quality, uniformity of operations, demonstration that the institution has a global scope and elimination of middle men. It must be noted that despite the numerous benefits global sourcing gives, the cost factor has been for most companies the primary goal. In spite of this, benefits such as competitive advantage, quality assurance and service enhancement have become benefit factors that can hardly be [9], although they are sometimes overlooked by the companies. This study will throw more light on the cost and competitive advantage factors of global sourcing.

9. Trends and Developments in Global Sourcing

Despite the financial crisis, the number of sourcing transactions on a global scale is not decreasing but increasing. The same does not apply to the volumes associated with these transactions. These have declined in the past year (Logistics Manager, May 2009; Industry Week, July 2009). According to these articles, companies are extra aware of the risks relating to Global Sourcing. For many companies, the economic downturn is a reason to review their present sourcing strategies and locations, to give them the assurance that they have chosen the most cost-effective options.

An article in Highlands Ranch magazine (February 2009) asserts that many companies, even though they are forced to economize on a broad front because of the economic downturn, are maintaining their Global Sourcing strategy because managers regard the (potential) competitive

advantage of this strategy as too valuable to give up.

In Business Wire magazine (2008) which describes the Global Sourcing trends for 2009, the strength of Global Sourcing as a strategic tool to reduce costs is endorsed. However, it is also emphasized that a number of things will change in the present situation. The rising unemployment rates in the Western world will probably mean a declining growth in the sourcing of services, because enough capacity and flexibility are available on the home market to provide these services. Global Sourcing and globalization in general will continue to grow (although at a lower rate), despite the economic downturn.

Because the present economic situation is making companies increase their level of outsourcing to suppliers, allowance should be made for the fact that capacity increases often require suppliers to make large investments. But if these are handled correctly, both the supplier and the purchaser can benefit from increased scale.

The large fluctuations in exchange rates make it very important for the associated risks to be carefully identified. Increasing numbers of long-term project-based sourcing contracts are being entered into. To provide stability and reduce uncertainties in the supply chain, more and more companies are opting for long-term relationships with suppliers.

To respond to a changing market, it is now more important than ever to ensure that the right mix of internal production, 'near shoring' and outsourcing is in place within the organization. The aim is to provide the right level of flexibility, but also to allow the most cost-effective possible production where necessary (Business Wire, 2008).

10. Major Findings

Aside mining equipment that might be expected as one of the main products that mining companies might source globally, business process seems to be one major service that all the mining companies in the country source globally. This seems to suggest that the appropriate business processes needed in the mining industry is not available in Ghana.

The study revealed that quality is the main factor that drives mining companies in Ghana to do global sourcing. This is due to the quest of these companies to be efficient and effective in their operations and also to help achieve competitive advantage. Hence, they need to do global sourcing to enable them acquire the right input and processes for their operations.

On theoretical and practical basis, the cost factor has been postulated by many scholars as the underlying reason for which companies conduct global sourcing. The findings of this research however seems to suggest that, although recognised as a benefit for doing global sourcing, the cost factor does not play a major role in the sourcing preferences of the mining companies in the country. Other factors such as quality, competitive advantage and global outlook seem to have more considerations as compared to the traditional idea of cost benefit.

Two prominent challenges normally faced by companies that engage in global sourcing in relation to the delivery of product and services from their foreign sources are the time of delivery and lead time. These two seem not to be a challenge to the mining companies in the country, except maybe on few occasions that delivery might have been delayed. Generally, deliveries are reliable and it takes normal time for goods and services to be delivered according to the estimation of the sourcing professionals in the companies.

The study realised that a strong global sourcing management team that comprises of both local professionals and international purchasing officers do help in addressing some of the challenges of global sourcing. The study revealed that companies studied have the required number of staff and the knowledge needed to help in their sourcing activities. However, it was realised that these teams lack the required legal expertise when it comes to dealing with the legal frameworks of the countries that they source from.

Of all the companies, Newmont Gold Ghana Limited seems to be the only firm that have trust issues with their foreign sources. This is however the case with their African partners. The other companies seem not to be facing such a challenge. This is probably due to the lack of clearly defined expectations on the part of both parties.

The results of the study indicate that all the companies do not have a clearly defined model for doing global sourcing. It is quite surprising to note that although they have much stuff under control there are no models and clearly defined strategies that are guiding them in their global sourcing activities.

In relation to models, it must be noted that although the professionals are said to have much knowledge in global sourcing it is quite the opposite in relation to their knowledge of models and strategies. Generally, respondents exhibited a lack of knowledge in relevant models and strategies in conducting global sourcing hence their refusal to answer the questions related to it. Those who did answer however did not give any concrete answer to the nature of the model or strategy put in place by the companies. Most of the examples they were giving were related to domestic procurement of goods and services.

Contrary to the traditional opinion that metal and mining companies conduct more of 'low-cost country sourcing' the mining companies in Ghana seems to prefer 'best cost country sourcing' to 'low-cost country sourcing' in conducting global sourcing. This might be due to the fact that they place more emphasis on the quality and competitive advantage benefits more than the cost or cheap labour factors.

11. Recommendations

In order to address the challenges that the companies face in relation to differences in legal frameworks, there is the need for the companies to develop strong legal teams to deal with this challenge. This can be done with the help of international purchasing officers in these foreign countries

who might act as agents for such a purpose since these indigenous professionals do already have knowledge of the legal framework in their countries.

The professionals in all the companies who are involved in taking purchasing decisions need to be given refresher courses on the whole concept of global sourcing. Although they are really doing well in the performance of their duties, the answers the respondents gave suggested the lack of knowledge on their part. This knowledge is related to strategies and some concepts of sourcing. This can be done by the introduction of training programs for professionals which would be conducted by experts, both local and foreign, and or by attending various institutional based courses.

The local firms that provide business process solutions can consider partnering the mining companies in terms of the provision of business processes solutions. If these local companies can develop their capacities to provide the needed business processes in terms of quality, the mining firms would consider domestic sourcing in order to curtail some of the associated challenges of sourcing for them globally.

In order to address the trust issues that Mining companies in Ghana have with some of its foreign sources, there is the need for stakeholder collaborative meetings that would clearly define what each party expects. When both parties know exactly what is expected of them, they would know when they are not meeting their part of their bargain. Communication should be intensified with periodic visit to sources for checks and balances in order to ensure that each party is doing its work properly.

The companies need to put in place a clearly defined model or strategy for global sourcing and educate their staff accordingly about the existence of such a model. As is the case there seems to be a pattern for sourcing but professionals seem not to have a clear idea of it. This can be done by setting up a board to clearly define how the company wants to go about its sourcing activities which would be communicated to all the units of the supply chain and procurement department.

Further research is recommended into the knowledge of supply chain and procurement professionals in Global sourcing since most of them seem to lack knowledge in the field from the findings of the study. Also, further research is suggested to be carried out in other companies within the country so as to develop comprehensive guidelines for global sourcing and the sample size can also be increased.

12. Conclusion

Global sourcing as a strategy for global business in the ever growing world of globalization has great benefits that a company can derive from. The mining companies in Ghana are noted to be major players in this art of conducting global business. They mainly source for products and business process that are associated with the mining industry. Although global sourcing can pose great challenges to the company conducting it, the mining companies in Ghana seems to have much of these under control except maybe for

the legal frameworks that exist in foreign countries. The reason for which they do global sourcing is not so much under the influence of cost as it has been held traditionally as the driving force behind global sourcing. They conduct global sourcing mostly under the influence of quality, competitive advantage, and global outlook. For this reason all the companies prefer BCCS to LCCS which is quite contrary to assumptions of authors when it comes to sourcing among M&M companies. The companies are really doing well in the management of global sourcing and its related activities but there is the need to conduct some form of training for the staff in order for them to be abreast with some of the concepts of global sourcing in the country since they seem to lack knowledge in that.

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