Outsourcing Strategies of Mining Industries: An Empirical Evidence from a Developing Nation

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Abstract- The prospect of gold mining depends on continually searching for inexpensive and more efficient ways of mining. Businesses, both the private and the public sectors alike are now into outsourcing practices. It is a phenomenon that has seemingly come to stay with the legitimate recognition as a business practices. The main objective of the study is to explore the factors responsible for efficient outsourcing decision in the mining industry in the Sub Saharan Africa. The study is an exploratory case study of Goldfields Ghana Limited-Tarkwa. Out of seventy-three respondents contacted, a total of 55 questionnaires were distributed, and there were 33 usable questionnaires returned. Both descriptive and inferential statistical techniques were employed in analysing data using the SPSS 20. In relation to the Critical Factors for a Successful Outsourcing, the study revealed that a strong agreement was among respondents in favour of benchmarking vendors' capabilities and technical excellence as the most important factor to consider prior to any outsourcing decision. Again, it was realized that, the factors that align with "meeting the strategic fit of the outsourcer" as a critical for outsourcing was predominantly ranked next to the most successful factor. It therefore recommended that, for a successful outsourcing operation, it is important to form contracts so that the supplier acts with the outsourcer's best interest in mind. Different contract terms influence the vendor's actions, such as their capacity decisions.

Keywords- Outsourcing, core, non-core activities, mining

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1. Introduction

The prospect of gold mining depends on continually searching for inexpensive and more efficient business practices of mining particularly in recent time that the price of Gold at the world market continues to suffer erratic fluctuation. This has necessitated a critical look at means of extracting quality ore at a cost which is economically viable for mining companies in Sub-Saharan Africa.

In the current environment of intense competition and financial crunch which has compelled most firms to resort to down-sizing or alternatively redirecting focus on core business activities, most companies no longer assume that all organizational activities and services can, and must, be provided and managed internally. Outsourcing has therefore become a key strategic tool in today's competitive business environment and there is increasing acceptance of the need for leadership and management capability to structure and manage cooperative relationships crucial for an effective working of outsourcing arrangements. Businesses, both the private and the public sectors alike are now into the practice. It is a phenomenon that has seemingly come to stay with the legitimate recognition as a business practice.

Outsourcing as defined by [1]" is a management strategy by which major non-core functions are transferred to specialist, efficient, external providers''. Stated differently, it refers to the process by which a company contracts another company to provide services that might otherwise be performed by in-house employees.

Outsourcing is being employed to achieve performance improvements across the entire business. Since, the early 1990s, outsourcing has been discussed under both academic business studies and operational practice as pointed by [2]. According to [3], usually firms have outsourced their non-core activities. However, outsourcing does not necessary mean that the outsourced function is less important to company's performance as argued by [4]. That has brought about myriad strategies that can be adopted in its implementation.

In recent years, many other functions in all industries have been actively outsourced, including information systems and technology, telecommunications, document processing facilities and services, facilities management and maintenance; food services, and management services. Outsourcing of entire processes however has not been prevalent.

As alluded in the preceding discussions, outsourcing is an important concept and the trend keeps on increasing considering the current environment within which companies find themselves, with increasing pressure from users in terms of competitive prices and service, and from shareholders in terms of profitability, return on investment and shareholder value. Outsourcing provides managers with a strategic tool to meet the increasing challenges, improving company performance by concentrating on core competencies, being more cost effective and expanding levels of customer service. Outsourcing, thus, is an increasingly important trend and development in the business world and is growing in terms of its strategic relevance to companies.
In summary, the growth of outsourcing has resulted from an economic climate characterized by fierce competition, and emphasis on cost savings and increased profit. At the same time, the technology of the late 1990s provided a new window of opportunity for the provision and the purchase of outsourcing services as asserted by [5]. Furthermore, while cost saving is usually the primary motive behind outsourcing initiatives, others assert that there is more to outsourcing than just cost savings. It is therefore important to investigate the other varied needs and purposes for which companies resort to outsourcing.
Outsourcing as argued by [6] and quoted by [5], is one more approach that can lead to greater competitiveness. [7], also in support of the view pointed to the need for organizations to think strategically about how they are going to deal with these many changes and increasing pressures. He asserts that organizations are questioning whether the traditional paradigm of owning factors of production is the best to achieve competitive advantage, but that the outsourcing concept of moving activities out of the organization to where the experts and their resources exist as opposed to owning all of the resources is in opposition to most traditional firms. The recent event which has come to buttress this assertion is the fact that in 2009, one of the renowned mining companies in Ghana; Gold Fields Ghana Limited-Tarkwa; took a twist turn to in-house in the maintenance of their heavy equipment which was formerly outsourced and performed by another company known as Mantrac.

It tells that although successful outsourcing can be a powerful tool for achieving competitive advantage, when care is not taken to critically analyze the factors that drive the course, it can lead to sub-optimal performance, lack of morale, and lost business opportunities. Many problems result from outsourcing services because most companies attached ad-hoc measures in entering into such contract without regards to long term implications. It is for this compelling argument that the study seeks to investigate the important issues and challenging areas associated with the concept and practice of outsourcing.

The main objective of the study is to explore the factors responsible for efficient outsourcing decision in the mining industry in the Sub Saharan Africa and specific determine the critical factors for successful outsourcing at Goldfields Ghana Ltd-Tarkwa. Then identify how outsourced functions are managed between the parties as well as examining the issues and challenges of outsourcing functions and then evaluate how outsourcing helps to reduce cost and achieve value in the mining activities at Goldfields Ghana Limited-Tarkwa.

2. Literature Review

The section provides an account of the knowledge and ideas that have been established on the thematic areas associated with the study which includes a critical appraisal of literatures on outsourcing, strategy, outsourcing as a strategic consideration, theoretical underpinning of outsourcing, the drivers for outsourcing as well as the risk factors, relationship management in outsourcing and the steps to successful outsourcing implementation. It includes a review of current, relevant and significant views about outsourcing and gives an overall assessment of previous researches.

2.1 Overview of Outsourcing

[8] also defined outsourcing as the procurement of products or services from sources that are external to the organization. While [9], define outsourcing more from an operational auditing perspective as utilizing external providers to satisfy any of a company's capital requirements thus; material, labour, or plant

and equipment. Such abroad definition encompasses every resource acquisition decision. [10] argued that, outsourcing is a management strategy by which an organization delegates major but non-core functions to specialized and efficient service providers. [5] combine various definitions to explain outsourcing in answer to their question as to what outsourcing comprises.

2.2 Forms of Outsourcing

Outsourcing according to [5] can be divided into three different levels, namely; tactical, strategic, and transformational.

2.2.*1Tactical outsourcing* means that a company will get a better service for less investment and management time from an outsource provider. It focuses on constructing the right contract and making the vendors stick to that contract. Reasons for tactical outsourcing are for example immediate cost savings. Quite often, the company is already in trouble and uses tactical outsourcing as a direct way to address problems.

2.2.2 *The Strategic Outsourcing Model*

According to [12], state that there are a number of critical issues to be taken into account when outsourcing becomes an improvement initiative. Strategic decision making in terms of what is to be outsourced and what not to outsource is essential.
Strategic outsourcing is about outsourcing a certain function of a company to be able to focus on core businesses. It requires a strong secure relationship between the vendor and the company. This means a strategic long-term partnership with the emphasis of mutual benefit, instead of a pure vendor - buyer relation, which is quite often adversarial.

2.2.2.1 *The Tactical Outsourcing Model*

The tactical outsourcing model [13] includes, the following but not limited to;

- Daily maintenance planning, which include routine, preventive, predictive and corrective work orders.
- Small capital work i.e. typically less than one million rand
- Shat down maintenance.

2.22.*2Transformational outsourcing* refers to outsourcing everything the company does not do well, including core businesses. Therefore, the purpose of outsourcing is redefining the business. This might be quite questionable since core business is usually the most important part of a company.

2.3 Application of Outsourcing in Mining Industry

In mining and mineral business the world wide usage and importance of outsourcing has grown dramatically over the last decades. According to a survey conducted by [38], the mining companies worldwide will increase their procurement spending at least 15% during the next 2 years and most of it to outsourcing business services.

The “value chain” in mining sector is made up of numerous actors of which all participate in a range of activities to bring a particular product or service from extraction to production and from delivery to the final consumer [14]. The coordination of these chains is determined by the nature of chain governance. It is suggested that there are perhaps only two core competencies required for the mining industry which are financing and managing, and that all other activities could be outsourced (Stacey, Steffen & Barret 1999).

2.4 Outsourcing as a Strategic Consideration

As has been discussed in the preceding section, companies are increasingly considering outsourcing as a strategic option and important restructuring tool. These companies are operating in increasingly difficult environments with major change impacting on their operations and strategies. [5] in discussing the strategic nature of outsourcing emphasized that companies in particular have been impacted by information technology, communication, organisational change and cost cutting.
According to [7], outsourcing is a strategic decision requiring proactive and professional decision-making and needs conscious effort in analyzing in order to make a better informed decision. A company’s strategy forms a comprehensive plan stating how it will achieve its goals and objectives and primary business. It maximizes competitive advantage and minimizes weaknesses and threat as asserted by [17]. [18] also defined strategy as a plan, method, or series of manoeuvres or stratagems for obtaining a specific goal or result and also a set of dynamic, integrated decisions that absolutely must be made in order to position the business in its complex environment. According to [8], increasing companies are focusing on strategy and committing to integrating resources across all operational levels to achieve their identified objectives. Thus, strategy represents the overall actions or approach to be taken to achieve the company’s goals and objectives. It is therefore vision, function, and economics that drive the need for outsourcing as quoted by [19]

2.5 Theories Underpinning Outsourcing

The studies of [4], are of the view that, the most used theoretical perspectives of outsourcing are transaction cost theory, resource-based view, and power.

2.5.1 *Transaction cost theory*

A one traditional and very popular theoretical approach for firms’ boundary decision is transaction cost theory. Transaction cost theory suggests that the decision of whether the products and services are bought or provided in-house is determined by the most profitable option [4]. To put it simple, if using the market results to lower transaction costs than doing that activity internally, then it should be bought from the market [20]. According to [21], after the core and the non-core activities are identified, the transactional cost theory can help to determine what elements of the non-core competencies are best to outsource. The idea behind this theory is that you have to handle additional transactional costs through outsourcing.

2.5.2 Resource-based view

The resource-based view considers the firm as a bundled of assets and resources that if employed in distinctive ways can create competitive advantage. Resource-based view is based on the theory that companies utilize outsourcing to get resources not available internally. The theory generated after transaction cost theory lost some relevance in that the cost has literately been the only decision-making criterion [4]. Resource-based view of the firm emphasizes the importance of resources in guiding firm activity. According to the theory, the management of a firm's collection of capabilities is central to company’s competitive advantage.

2.5.3 Power Theory

The work done by [4], argued that due to rationalization, reorganization or outsourcing, resources are lost or shifted to other departments or companies. Through what has been hinted, the department that has originally been in charge of the outsourced activity or function gains or losses power compared to the other departments whose function is still in-housed. It further argues that every department tries to maintain and gain as much power as possible. Therefore it answers the question what to outsource as a matter of power. That means the departments that have less power compared to the others might be outsourced.

2.6 Types of Outsourcing Relationship

As was outlined, outsourcing agreements establishes a commercial relationship formalized with legal contracts or arrangement. Relationships emanating from outsourcing can include limited or partial outsourcing, and collaborative relationship which can take several forms with respect to acquisition and sharing arrangements. Collaborative outsourcing relationships are often structured as joint ventures and partnerships, characterized by flexibility, risk and knowledge-sharing. Limited outsourcing decisions or partial relationships are generally more analytical than emotional in nature, primarily because few people are impacted on by the decision process or its outcome as stated by Gavin & Matherly, (1997).

From a global outsourcing point of view, Elmuti & Kathawala (2000) assert that the trend is for outsourcing relationships to function more and more as partnerships as opposed to subcontracting and joint venturing. Franceschini *et al* (2003), propose that an organization evaluate the type of relationship it requires based on two main characteristics thus, specificity and complexity of the process to be outsourced. Specificity refers to the level of re-utilization of the considered process for many different uses while complexity refers to the difficulty of monitoring and defining contract terms and conditions of the outsourcing process. A combination of these two characteristics gives rise to four possible types of relationships namely traditional vendor, temporary relationship, strategic union and network organization.

2.7 The Drivers for Outsourcing

Outsourcing a non-core area for some reasons, include lack of internal expertise, cost reduction, economies of scale and increasing profitability and accessing technical expertise to keep up with world-wide technological trends, 19. However, these apparent drivers should not be seen as a blind invitation to pursue what some might consider a managerial fad [9]. Appropriate analytical techniques should be employed along with sound professional judgment to arrive at an outsourcing decision. [7] asserts that it is critical a company understands its reasons for considering outsourcing and the benefits it seeks thereof, in order to make an informed outsourcing decision. He lists a variety of outsourcing benefits which he also refers to as outsourcing reasons. These are categorized as organizational, improvement, financial, revenue, cost, and employee driven reasons. Strategically, financially and operationally, outsourcing also holds the potential for many improvements and other possibilities for a company [7]; [23].

2.8 Outsourcing Risk Analysis

If the outsourcing contract is not preceded by careful strategic planning and thorough risk assessment, it may result in financial loss, decreased shareholder value, damaged company reputations or even destruction of the business as defined by [24]. They further state that the awareness of possible risks incurred when outsourcing, will enable decision makers and stakeholders to make an informed decision and draw up contingency and mitigation strategies. A holistic approach to outsourcing, one that evaluates both the risks and rewards, is crucial [25]. Robust risk management processes are needed to ensure that risks are identified and addressed so that the real opportunities to increase shareholder value provided by outsourcing can be. According to [25] the use of outsourcing as a strategic management tool increases operational risk in a number of ways.

2.9 Steps to Successful Outsourcing

Outsourcing holds many advantages for a company that is successful in its implementation. However, according to [5], many problems can also be experienced. In order to avoid as many of the problems as possible, certain steps must be taken such as undertaking a thorough business analysis, correctly identifying the core competencies of the company, having a clear understanding of what the organization wants to achieve by outsourcing, developing comprehensive plans to ensure that outsourcing provides enhanced business performance, choosing the correct outsourcing providers and treating them as partners, ensuring communication and honesty throughout the outsourcing process, and providing adequate training and skills to facilitate the inevitable changes resulting from the process. There must also be complete support of the process by top management with the commitment of the necessary company infrastructure. [16] contrasted with the importance of making the right decisions with respect to outsourcing and identify the following keys to successful outsourcing: Strategic analysis and planning, Careful evaluation and selection of the providers and managing the relationship

2.10 Managing the outsourcing contract

[16] assert that the necessary time and effort must also be spent on negotiating and establishing the outsourcing contract, with respect to management structures and systems for monitoring and evaluating the relationship. They state that regardless of how the activity is handled in-house, outsourcing must be managed differently, often requiring new management skills. As has already been outlined, the outsourcing company must identify and stipulate the required service level in order to measure the service provider accordingly, and management must monitor and evaluate adherence to the outsourcing contract [26]

3. Research methodology

The research is a case study of Goldfields Ghana Limited-Tarkwa. The study is an exploratory type which seeks insight and to assess the phenomenon in a new light [27]. It adopts a multi-purpose procedure of which both qualitative and quantitative research techniques were used. The convenience or purposive sampling method was used in the collection of members of the population because they are near and readily available [28] and the break-down of the constituents population were Procurement unit, Business Improvement Unit, Finance Unit and Heads of Departments, whose legitimate role involve them in the process.

We contacted the key informants personally (face-to-face), in order to obtain their preliminary agreement to participate in this study. The questionnaire, along with a cover letter highlighting the study's objectives and potential contributions, how they are supposed to fill them and also an assurance of their confidentiality were sent to the various informants by hand. Follow-up telephone calls and mailings were used to improve the response rate [29] and address potential missing data issues. For some departments it took two to three days to get back the response while others a whole week was used to respond to the questions. Out of seventy-three respondents contacted, a total of 55 questionnaires were distributed, and there were 33 usable questionnaires returned. The response rate was 60% based on the number of respondents that the questionnaires were distributed, comparable to other outsourcing studies [30].

Both descriptive and inferential statistical techniques and procedures were employed in analysing data using the SPSS 20. The basic analysis involved the use of arithmetic mean, standard deviation in order to determine the most critical factors. Those factors with the highest mean on "importance Criteria" ratings were considered to be the most critical ones to Goldfields Ghana Limited-Tarkwa. Those factors with the same arithmetic mean were ranked based on their standard deviations. Those with lower standard deviations were placed ahead of the ranks. Performance ratings below 3 were considered low and those at 4 and above were considered high. A high performance was taken to imply that a high effort was applied into implementing that factor and that the task was well done. On analyzing the success of outsourcing, if the level of impact was 4 and above, then outsourcing was considered to be a success on that performance dimension.

3.1 Operationalization of the Constructs

We surveyed the literature to identify valid measures for related constructs and adapted existing scales to measure factors that are critical to the success of outsourcing processes. When there were no reliable and valid existing measures, we developed new measures, based on our understanding of the constructs and our observations during company visits and interviews [31]. The indicators were all measured using a five-point Likert scale, where higher values indicated best critical success factor for outsourcing processes. A panel of experts from some supply chain departments assisted in ensuring completeness and clarity of all items. To engender a common understanding, the survey instrument included definitions of all items. Finally, the expert panel assisted in the pilot testing of the instrument. All measurement items are conceptually grounded in the literature as discussed previously and are drawn from published research projects [32]; [33], [34]. The measures for the type of contracts outsourced which the respondent was involved was required to gauge the level of experience. Job titles were requested to gauge respondents' level of involvement in the management of outsourcing are 'extent to fuse' 'scales where respondents rate' 'the degree to which the following initiatives were utilized by their departments'on5-point scales with endpoints ''Strongly Disagree" and ''Strongly Agree". The factors were defined in simple terms to ensure ease of understanding and items were divided into three with the first section defining the outsourcing and the determine the level of importance of the factors known to be critical to outsourcing forming the next section. The third section of the questionnaire requested respondents to rate the effect of outsourcing on their companies' performance (presently and 5 years into the future) over the five dimensions of quality, flexibility, cost, speed and reliability. They were also requested to indicate what they felt the overall contribution of outsourcing was to company success.

4. Results and Discussion

This section of the study presents the results of the field study undertaken to test the study's objectives. The various analytical tools and statistical procedures employed in analysing data collected are detailed in this section. The findings of the study are also discussed in light of the objectives of the study and relevant literature.

Table 1: Definition of Outsourcing and Functions

Definition of outsourcing and functions	**Responses**		
	N	**Percentage**	**Percentage of Cases**
Exploration	32	25.0%	97.0%
IT support	1	0.8%	3.0%
Health	30	23.4%	90.9%
Maintenance	1	0.8%	3.0%
Security	30	23.4%	90.9%
Canteen	33	25.8%	100.0%
We don't outsource	1	0.8%	3.0%
Total	**128**	**100.0%**	387.9%

Table 1 presents the functions or activities that focus organization presently outsourced. It can be seen in descending order that canteen, exploration, health and security were indicated as the most activities or functions that the mining industry outsourced. They accounted for 33, 32 and 30 with percentage counts of 25.8, 25 and 23.4 respectively. These activities are both core (Exploration) and non-core (canteen and Security services) functions of the mining firms which is in line with the argument made by [35], [36], [37] and [10], but contrary to [3] studies which reveals that, usually firms outsourced their non-core activities

Table 2: Critical Factors for Successful Outsourcing at Goldfields Ghana Limited, Tarkwa

Criteria	Percent Likert response					MR	SD
	1	2	3	4	5		
Ensuring that the process or activity can be outsourced without giving away	18.2	15.2	6.1	42.4	18.2	3.27	1.420
Benchmarking of the vendors capabilities to ensure technical	0	6.1	24.2	48.5	21.2	3.85	0.834
Ensuring that the company's resources and capabilities have gaps that can be filled by outsourcing	0	21.2	21.2	42.4	15.2	3.52	1.004
Ensuring that the vendor has access to a broad base of experience and skilled	0	27.3	24.2	45.5	3.0	3.24	0.902
Ensuring cultural and strategic direction fit between the vendor and Goldfield Ghana Limited, Tarkwa	0	9.1	42.4	39.4	9.1	3.48	0.795

This section of the research work touched on the critical factors for successful outsourcing at Goldfields Ghana Limited, Tarkwa. Table 2 presents the summary of views of the respondents as to their take on the observed criteria. Respondents were asked to indicate their views on a likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree). It can be observed in descending order, the first 3 most perceived criteria using the mean response and standard deviation as Benchmarking of the vendor's capabilities to ensure technical excellence (3.85, 0.834), Ensuring that the company's resources and capabilities have gaps that can be filled by outsourcing (3.52, 1.004) and Ensuring cultural and strategic direction fit between the vendor and Goldfield Ghana Limited, Tarkwa (3.48, 0.795)

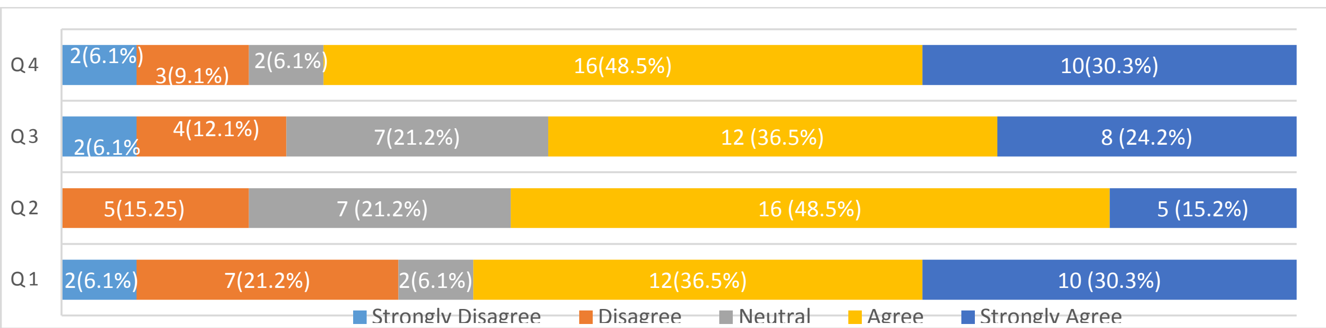

Figure 1: Managing Outsourcing Functions between Parties

Figure 1 depicts managing outsourcing functions between parties. Q1, Q2, Q3, and Q4 represent Providing a flexible contract that is open to changing market conditions and technologies, and the continual communication during and after the outsourcing process; establishment of contingency and mitigation plans for the identified risks; ensuring compliance to labour relations Act during the outsourcing process and Ensuring a strategic or partnership relationship between the outsourcer and the vendor, and the continual tracking and measurement of vendor performance.

It can be observed from the figure that majority of the respondents agree to the criteria (Q1, Q2, Q3 and Q4) confirming [25]. With few respondents being neither neutral nor disagreeing with the criteria set. It can be observed that Q2 (establishment of contingency and mitigation plans for the identified risks) presents 48.5% and 15.2% of the respondents rating agree and strongly agree to the criteria Q2, however, 21.2% were neutral or undecided whereas 15.25% disagrees to same criteria This means that practitioners have the requisite knowledge in the outsourcing strategy [5]

Table 3: Issues and Challenges in the Outsourcing Functions

Criteria	N	Minimum	maximum	Mean	Std. Deviation
Risk of the client's cultural impact on the values of Goldfields Ghana Limited-Tarkwa	33	1	5	3.21	.905
Risk of access to private and sensitive data	33	1	4	3.24	.834
Risk of losing critical skills of employees	33	2	5	3.55	.751
Problems of reporting systems in the chain of command between internal staff and the client	33	1	4	3.15	.927
Valid N (list wise)	33				

Ensuring Value for Money through Outsourcing Processes

Table 3 shows the issues and challenges in the outsourcing functions. It can be seen from the table that risk of losing critical skills of employees is the most pressing issues in the outsourcing function, followed by risk of access to private and sensitive data as argue by [24], if the outsourcing contract is not preceded by careful strategic planning and thorough risk assessment, it may result in financial loss, decreased shareholder value, damaged company reputations or even destruction of the business. From the data gathered the mean of 3.55, 3.24 with standard deviation of 0.751 and 0.834 respectively. These indicates the smaller the standard deviation associated with a mean value the more reliable the mean value and the larger the standard deviation the less reliable the mean value and this this in line with work done by [25].

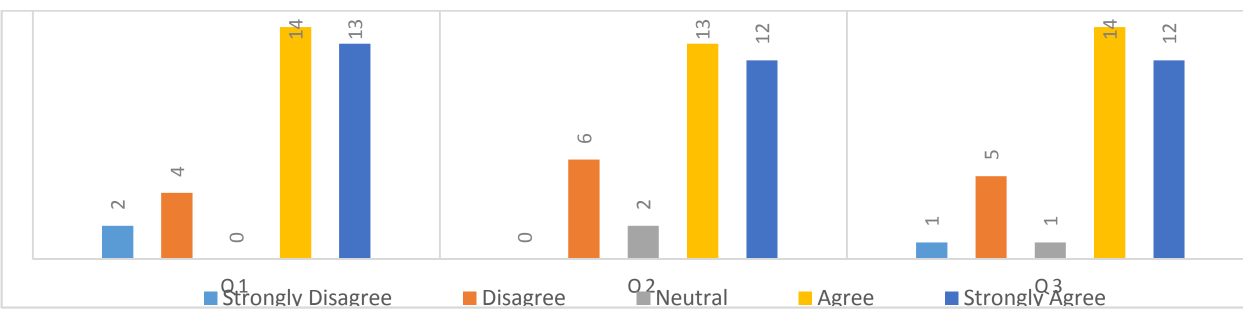

Figure 2: Reducing Cost and Achieving Value through Outsourcing of Operations in the Mining Sector

Figure 2 represents respondents' perspective on reducing cost and achieving value through outsourcing of operations in the mining sector. Ensuring a reduction of production cost of Goldfields, and possible cost saving to reflect on their profitability (Q1); achieving operation optimization by improving production and service delivery at a minimal cost (Q2) and ensuring that the client's process transactional cost is less than the management current process costs at Goldfields Ghana Limited, Tarkwa (Q3) [4]. For all the variables, over 75% of the respondents correspondingly indicated agree and strongly agree whilst disagree and neutral accounted for the remaining 25%. These confirms that Goldfields Ghana Limited, Tarkwa affirms reducing cost of production and achieving value through outsourcing of operations in the mining sector [20].

Table 4: One Sample Test on How Outsourcing Has Brought About Improvement in the Mining Operation

Criteria	Test Value = 3.0				95% Confidence Interval of the	
	t	df	Sig. (2-tailed)	Mean	Lower	Upper
Quality improvement	4.690	32	0.000	3.33	0.47	1.20
System flexibility	3.883	32	0.000	3.21	0.34	1.09
Speed of service and operation	3.729	32	0.001	3.15	0.30	1.01
Cost Improvement	4.154	32	0.000	3.27	0.39	1.15
Reliability of service delivery	5.020	32	0.000	3.45	0.57	1.34
Improvement in overall contribution to company success	6.424	32	0.000	3.73	0.84	1.62

Table 4 presents a one sample T-test on how outsourcing has brought about improvement in the mining operation. A test value of 3.0 was used to assess the 6 criteria. It can be seen from the third column that all the criteria were significant indicating outsourcing has brought about improvement in the mining operations just as discussed by [7]; [23].

The higher the t-value and the mean values, the more the reliable. For instance Improvement in overall contribution to company success, reliability of service delivery and quality improvement are more reliable than cost improvement, system flexibility and speed of service and operations.

5.0 Summary of Findings, Conclusion and Recommendations

5.1 Summary

The question that the study aimed to address was to identify the critical success factors for an outsourcing strategy in the mining industry. To come out with the finding, factors responsible for successful outsourcing were identified. We also had to measure the performance of the critical factors under a six (6) performance metrics or indicators. In relation to the Critical Factors for a Successful Outsourcing, the study revealed that a strong agreement was among respondents in favour of benchmarking vendors' capabilities and technical excellence as the most important factor to consider prior to an outsourcing decision. It was realized that, the factors that align with "meeting the strategic fit of the outsourcer" as a critical for outsourcing was predominantly ranked next to the most successful factor. This is confirmed by the rank order in which opinions were shared by the respondents. Other most critical factors were risk of losing critical skills of employees, the risk of losing sensitive and private information. Also was the risk of cultural impact of the vendor on the established values of the outsourcer. The study in addition touched on the effect of the identified factors performance using the indicators; cost, quality, speed, flexibility, quality, reliability and overall contribution; to determine how Goldfields Ghana is being impacted through outsourcing. In the midst of these indicators, a greater percentage of the respondents observed that quality improvement was not hugely impacted as it was ranked 4th under the performance criteria. Surprisingly, cost saving was ranked high over quality. This is a factor adjudged by the mass of the respondents to be the most critical. In addition to the analysis, a greater percentage of the respondents pointed out that cost as a critical factor is not implemented in response to the quality need and reliability of the service provided.

5.2 Conclusion

It can be concluded from the above analysis that on the basis of performance criteria, Goldfields Ghana Limited-Tarkwa, applied a lot of effort on the cost factors at the expense of equally critical factors such as quality and reliability. This suggests that the company just like similar firms in the industry do not seem to view outsourcing from the total cost of ownership perspective. Viewing from another angle, there were suggestions that the company can make a significant impact on performance through outsourcing if they really adopt best strategies for that. This is revealed through the respondents perception about the future prospect of outsourcing derived from the responses on overall contribution of outsourcing to the company's success. The analysis also suggests that, to reap the full benefit of outsourcing, applying the same level of effort in most areas does not seem to be helping, judging by the mediocre benefits that were achieved from performance indicators. The company should be made to be aware of areas that give them the most benefit and put more resources there in order to reap more benefits.

5.3 Recommendations

In view of the findings, the following recommendations deemed important for a useful insight into the concept to effectively evaluate the outsourcing decisions. First, responses revealed that performing a comprehensive evaluation of an outsourcing occasion not only simplifies the outsourcing decision, but also creates a clear understanding of the risk and coordination implications of outsourcing. This study reveals that it is important to understand both internal and external environment of the outsourcing decision and the strategic and structural aspects associated with an organization's decision to reconfigure. The lack of proper contract management has also been identified as a significant risk factor that can lead to increased cost of services and inability to meet cost reduction targets. It is recommended that, for a successful outsourcing operation, it is important to form contracts so that the supplier acts with the outsourcer's best interest in mind. In addition, mining companies who are dealing with outsourcing decisions should define their performance indices and develop common lines and criteria to guide the future outsourcing situations. That could clarify the general procurement process and also help the implementers to evaluate the outsourcing contracts and providers and to prevent the possible gaps in the contractual completeness. Laid down processes might also help mining companies to coordinate and control the service providers, since the ongoing and daily tasks are more easily tracked. For service providers, the study provides very important information on the characteristics of the service procurement in the context of mining industry. This is in the light of the general outsourcing activities in the mining industry, and on the different aspects that affect the decision of outsourcing. The most important finding in this research for service providers is that in some situations the supplier's own capability can be the leading factor for the decision to outsource. Therefore it is recommended that service providers consider their capabilities, matching them against the outsourcers' identified gap and offering their capabilities from the mining companies' point of view.

Lastly, the study has a few shortcomings that can be addressed in future research. Future research should compare successful and unsuccessful outsourcing in an attempt to determine what those successful companies did differently from unsuccessful ones. Those differences will then constitute critical success factors. The investigation can as well go further to determine how much each of those factors contributes to outsourcing success. This will help to determine how much effort should be applied to the focus areas. Also, no effort was put into analyzing the interrelationship between the different critical factors and the relative effect on the success of outsourcing. In general the attention given to all factors considered to be critical or trivial was found to be average.

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