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**ASSESSING THE OPERATIONS OF CENTRALIZED
PROCUREMENT SYSTEM: THE CASE OF PROCESS AND PLANT
SALES GHANA LIMITED (PPS)**

**A THESIS SUBMITTED TO THE DEPARTMENT OF BUILDING
TECHNOLOGY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF MASTER OF SCIENCE (MSC) IN PROCUREMENT
MANAGEMENT**

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DECLARATION

I hereby certify that all material contained within this report is my own work towards the award of MSc Procurement Management and that, to the best of my knowledge, it contains no material previously published by another person or material which has been accepted for the award of any other degree of the University.

All sentences or passages quoted in this dissertation from other people's work have been specifically acknowledged by clear cross-referencing to the author.

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ABSTRACT

The procurement operational systems as operated by most corporate organizations are the centralized, decentralized and the hybrid. This thesis documents analyze the operations of the centralized procurement system of PPS. In centralized procurement, the procurement is coordinated and regulated from the headquarters of an organization. The objectives of the study were to evaluate the centralized procurement operations of PPS and to find out the challenges facing the centralized procurement system of the company. The main aim of it is to capture the economies of scale by unifying the purchasing processes of an organization's different units. Qualitative research method was employed with the help of quantitative analysis to come to the conclusion of this study. The instrument used for this study was structured questionnaire with opened ended and closed ended questions on the operations of centralized procurement system. The study established that the operation of the centralized procurement unit of PPS was very effective and it is managed by professionals with qualify skills on the job. Some of the challenges established by this study were: need for formal contracting and commitments to suppliers; Benchmarking process intimidating; Environmental challenges; and transportation. It is therefore recommended that delays in payment of suppliers as impediment against the function of the procurement team should avoided.

DEDICATION

I dedicate this work to my loving wife, PRISCILLA LINDA BOATENG, my mum, ADJOA ACQUAH and brother, FRANCIS KOFI NIMO NUNO for their selfless, relentless and unflinching contribution towards my education and my life in general.

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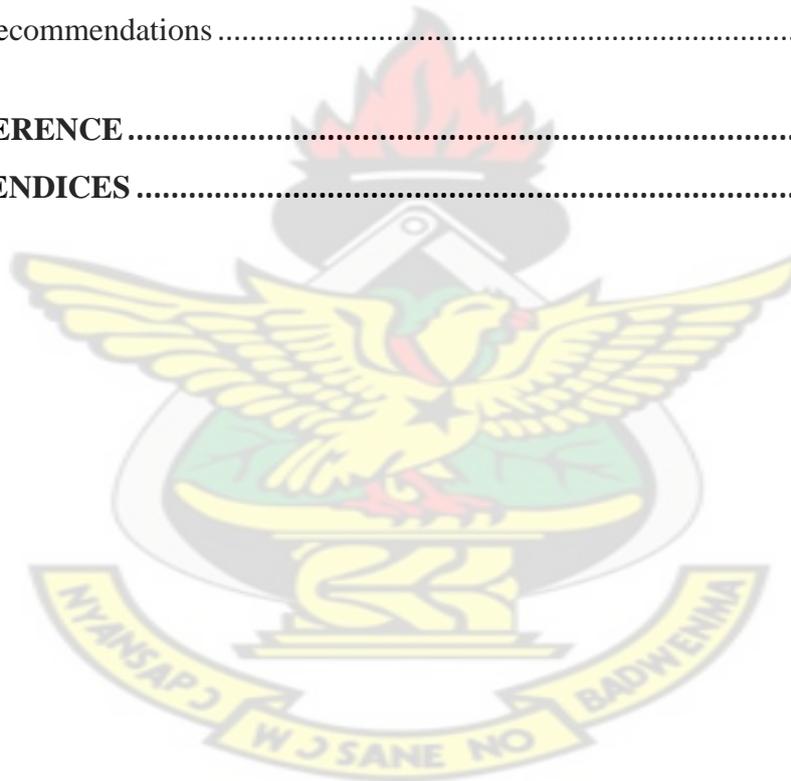
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TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT	iii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
ABBREVIATIONS.....	ix
CHAPTER ONE.....	1
INTRODUCTION	1
1.0 Background of the Study.....	1
1.1 Statement of Problem	4
1.2 Aim and Objective of the Study.....	5
1.2.1 Aim of the Study	5
1.2.2 Objectives of the study.....	5
1.3 Research Questions	5
1.4 Significance	6
1.5 Research Methodology.....	6
1.6 Scope of the Study.....	7
1.7 Limitation of the study	7
1.8 Organization of study	8
CHAPTER TWO.....	9
LITERATURE REVIEW	9
2.0 Introduction	9
2.1 Definition of Procurement.....	9
2.2 Procurement System.....	13
2.3 Centralized Procurement	14
2.3.1 Advantages of the Centralized Procurement System	15
2.3.2 Disadvantages of the Centralized Procurement System.....	16
2.4 Decentralized Procurement	16

2.4.1 Advantages of the Decentralized Procurement System	17
2.4.2 Disadvantages of the decentralized Procurement System.....	18
2.5 Centralization versus decentralization procurement	18
2.6 Hybrid Procurement	19
2.7 Selecting procurement Structure	21
2.8 Factors Affecting Procurement Structure.....	21
2.8.1 Context Related Factors	21
2.8.1.1 Contingency Theory	22
2.8.1.2 Structural Contingency Theory	22
2.8.2 Information and Power Related Factors.....	24
2.8.3 Procurement Related Factors	26
CHAPTER THREE.....	31
METHODOLOGY	31
3.0 Introduction	31
3.1 Research design.....	31
3.1.1 Sampling.....	32
3.1.2 Data collection methods.....	33
3.1.3 Data analysis	33
3.2 Verification.....	33
3.3 Delimitations	34
CHAPTER FOUR	36
DATA PRESENTATION, ANALYSIS AND DISCUSSION	36
4.0 Introduction	36
4.1 Centralized Procurement System of PPS	36
4.1.1 Building a Team	37
4.1.2 Relationship between PPS and its Customers	38
4.1.3 Quality of people involved in procurement.....	40
4.1.4 Suppliers Relationship	42
4.1.5 PPS and its breaches.....	45
4.2 Challenges Facing Centralized Procurement System of PPS.....	48

4.4 Analysis of Procurement Manager’s response	49
4.4.1 Centralized Procurement System of PPS	49
4.4.2 Challenges facing PPS procurement system	51
CHAPTER FIVE	52
SUMMARY, CONCLUSION AND RECOMMENDATION.....	52
5.0 Introduction	52
5.1 Summary of the findings	52
5.1.1 First objective: To evaluate the centralized procurement system of PPS	52
5.1.2 Second objective: To find out the challenges facing the centralized	54
5.2 Conclusion.....	54
5.3 Recommendations	55
REFERENCE	57
APPENDICES	62



LIST OF TABLES

Table 4.1: Effectiveness of PPS Procurement System.....	38
Table 4.2: Responses on PPS meeting its customer’s request.....	39
Table 4.3: The relationship between PPS and its customers is cordial.....	39
Table 4.4: The procurement system of PPS has greater impact on its ability to serve its customers	40
Table 4.5: Responses on skills and its impact on the ability of procurement professionals	41
Table 4.6: Selection of suppliers and PPS procurement system.....	42
Table 4.7: Monitoring and evaluation of suppliers.....	43
Table 4.8: What is the relationship with the suppliers like at PPS?	44
Table 4.9: Response on whether the procurement system of PPS is very effective	46
Table 4.10: Positives of Centralized Procurement.....	47



ABBREVIATIONS

GH	Ghana
KNUST	Kwame Nkrumah University of Science and Technology
PPS	Process and Plant Sales Ghana Limited
SCM	Supply Chain Management

KNUST



CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

According to Rozemeijer *et al.* (2003) the procurement organizational structure can be determined by the level of procurement maturity and corporate coherence. Procurement can be through informal or formal mechanisms. The interaction in procurement is usually facilitated either through formal organizational mechanisms on the one hand and informal networking mechanisms on the other, where a formal mechanism could be through e.g. working in commodity teams, the informal mechanisms could be networking at an annual procurement conference or through an advanced corporate wide procurement information and communication system (Rozemeijer, *et al.*, 2003).

The rationales behind companies choosing informal or formal mechanisms are related to the two contingency factors: corporate coherence and procurement maturity (Ingólfssdóttir and Dyndegaard, 2012). Without conventional formal organisational mechanisms, or other measures, the cooperative ways will weaken out and the corporate advantage in procurement cannot be sustained (Ingólfssdóttir and Dyndegaard, 2012). Rozemeijer *et al.* (2003) stressed that any corporate procurement initiative should be in line with the overall level of the two contingency factors, therefore top managers' won't add much value just by choosing an approach to create corporate advantage in procurement, they add value by creating a fit between: the approach chosen and the overall level of corporate coherence and procurement maturity. Thus, the fit would allow the corporations to effectively manage procurement synergies among individual business units (Rozemeijer *et al.*, 2003).

Procurement operational systems as asserted by such authors (Ellram *et al.*; Rozemeijer *et al.*, 2003; and Ingolffsdottir and Dyndegaard, 2012) are needed for successful running of any corporate organization. The procurement operational systems as operated by most corporate organizations are the centralized, decentralized and the hybrid.

Centralization procurement is a common way to leverage the benefits of indirect procurement in an organization (Karjalainen, 2009). In centralized procurement, the procurement is coordinated and regulated from the headquarters of an organization. The main aim of it is to capture the economies of scale by unifying the purchasing processes of an organization's different units (Lysons and Farrington, 2012; Karjalainen 2009). More often than not, this involves that a corporate-wide frame agreement is set for all the purchases to be made from certain preferred suppliers, and the amount of suppliers per product category is kept low (Karjalainen, 2009; and Iloranta and Pajunen-Muhonen, 2012). With this, spend per a supplier can be maximized and hence the purchasing power of the buying organization increased. This can lead to a better negotiation position regarding prices, quality, compliance, and strategy with suppliers (van Weele 2010). Procurement centralization should be considered especially when the needs for procured materials between different business units are similar (Iloranta and Pajunen, Muhonen, 2012).

Decentralized procurement is 'the redistribution of functions or tasks from central units in organizations to more widely dispersed units, that is it is about where in an organization particular functions are best carried out. The advantages of decentralized purchasing lies in: flexibility, local specialized knowledge, speed and responsiveness; an understanding of local needs; product development support; and ownership

(Monczka et al., 2010). Here the central office makes the policy and does corporate deals meanwhile the divisional staff carry out the actual purchases, the communication and responsibility goes both ways (Cousins et al., 2008). Since, the divisional staffs gradually take more control of their day-to-day operations and may even exploit opportunities in local markets that were not possible with a centralized office (Cousins *et al.*, 2008).

The combination of centralized and decentralized procurement systems is the hybrid procurement operational system. This system combines the advantages of both operational systems (Leenders and Johnson, 2000). All the three procurement operational systems have their advantages and disadvantages. However, this study is limited to the centralized procurement system.

The Process & Plant Sales (GH) Limited, company was established in the year 1998. It is an efficient service-providing organization. It is involved in providing services to the mining & quarry, construction & the processing industries. The company works on behalf of companies engaged in the manufacturing of various Power Transmission, Mineral Processing Equipments, and Wear Products for Wet & Dry Applications, Corrosive Resistance Products, Analytical and Laboratory Equipments, Industrial Safety, Machinery and Tools and Refractory Materials.

PPS always endeavour to develop co-operate relationship with their Valued customers and the branch networks. Process and Plant Sales (GH) Limited has earned a huge reputation as one of the leading equipment suppliers in Ghana and has maintained a distinct identity of their own. Currently the company is gone beyond the shores of Ghana into other West African countries. They are competent with innovative skills

and resourcefulness. There is a clear endorsement of the superb grade services it provides.

Process & Plant Sales (GH) Limited is an efficient service providing organization with well over 10 years experience behind them. Within this period, we have and continue to deliver customer value through strong partnerships. However, recent economic crisis has led to the company's inability to provide efficient service to its numerous customers due to its procurement structure. This study therefore looks at the centralized procurement structure of the company. At PPS, business decisions are taken at the center by the managing director. This has limited most operations of the company such as buying of equipments to run the branches. Branch managers have no right to procure even stationeries. This has affected the customer drive of the company.

1.1 Statement of Problem

The reasons for carrying out this project at Process and Plant Sales Limited of Ghana is that recent economic crisis and lack of information giving tool of the company have challenge the capacity of the company to cope. Procurement officers of service organizations have the following demand for information; what products or services are being procured from what supplier; which internal user is buying what product; how large customer is one department to any one supplier; and how much volume of a specific product / service has been procured throughout the entire organization.

Further, it is of great importance to have procurement methods that would enable a higher degree of co-ordinated procurement structure in the organization. A tool that would increase activities between procurement officers and provide information that identifies and alerts when a purchase falls within the scope of regulations, so the

Procurement Manager could trust the purchasing process fully. Establishment of procurement strategies and designation of responsibility for engineering, negotiation, contracting, etc. (Ingólfssdóttir & Dyndegaard, 2012) within the procurement department will provide increased bargaining power and improved competence and resource utilization in Process and Plant Sales Limited of Ghana (PPS). Establishment of supplier/contract monitoring through efficient procurement system will provide a much more systematic and professional follow-up on supplier performance and thereby improve the basis to achieve savings when comparing what has been agreed upon and in relations to renegotiations. Since procurement does not only take place within the procurement department but is extended to the wider organization (O'Brien 2009). This study looks at the centralized procurement system.

1.2 Aim and Objective of the Study

1.2.1 Aim of the Study

The main objective of this study is to examine centralized procurement system on the service organizations such as Process and Plant Sales Limited of Ghana.

1.2.2 Objectives of the study

The objectives of the study are as follow:

1. To evaluate the centralized procurement system of PPS.
2. To find out the challenges facing the centralized procurement system of PPS and its effect on the main activities of the company.
3. To suggest recommendations if necessary for improvement.

1.3 Research Questions

The questions for this research are listed below:

1. What are views on the centralized procurement system of Process and Plant Sales Limited of Ghana?
2. Are you able to procure without impediment?
3. What are some of the challenges facing centralized procurement system of PPS?

1.4 Significance

1. This study will shed light on centralized procurement structure and its impact on service organizations.
2. This research will provide information that would enable a higher degree of co-ordinate procurement structure at the Process and Plant Sales Limited of Ghana.
3. This research will provide empirical evidence on the challenges of centralized procurement structure by serving as a blue print for future research and also as a reference material in the future.
4. The researcher will also benefit from the research because it will broaden his knowledge.
5. This will also serve as secondary data that improves the policies of the organizations, influence cost of operation, and also reduce cost to paid customers.

1.5 Research Methodology

Data will be collected from two major sources. These are primary and secondary sources. The primary source of data collection will be carried out through structured interviews at PP. In this case, a prepared questionnaire item will be administered by the researcher. This will enable the researcher explain questions that may confuse the

interviewee. Quicker feedback can be retrieved in comparison to the scenario where a general questionnaire is employed. The secondary source of data collection will be information gotten from the British Council library, the KNUST Library and the internet, policy statements from the Procurement Broad.

1.6 Scope of the Study

Geographically, this research will be conducted in the Ashanti Region. Ashanti Region has been chosen because of its vast nature in term of population and geography. It has twenty-seven administrative districts, being the highest in the country.

Process and Plant sale Ghana Limited has four branches and for convenience sake only Kumasi branch is selected for the conduct of this research. The study will be limited to centralized procurement department of Process and Plant Sale Ghana Limited (PPS).

1.7 Limitation of the study

In order for a more verifiable and robust result to be attained, all the PPS braches in operation need to be studied. Using one service company as a case study could produce results that could be limited in scope. The findings of this study should therefore be interpreted and used within this constraint. Given the diverse nature of the topic being discussed, other multi varied analysis techniques such as multiple regression analysis could contribute to providing more compelling evidence. This approach however could not be used because of lack of data. These limitations notwithstanding, the study contributes to knowledge in the area of procurement and its impact on the performance of service organizations.

1.8 Organization of study

The report will be structured into five chapters. The first chapter will report on general introduction. The chapter two entails the literature review and the sub topic discussed in the chapter. Chapter three involves research methodology that includes target population, sample size, direct observation, interview, and procedure for data analysis. Chapter four is the findings and analysis of data. Chapter five entails the summary, recommendation and conclusion.



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews relevant literature on procurement, centralized procurement, decentralized procurement and explores other relevant theories influencing the operations of procurement.

2.1 Definition of Procurement

Procurement is the procedure of acquiring goods, works and services, covering both acquisitions from third parties. It entails option assessment and the critical “make or buy” decision which may result in the provision of goods and services in appropriate circumstances (Public Procurement Board (PPB), 2003). According to Azeem (2007), Public Procurement “is the acquisition of goods and services at the best possible total cost of ownership, in the right quantity and quality, at the right time, in the right place for the direct benefit or use of governments, corporations, or individuals, generally via a contract”. It can be said to be the purchase of goods, services and public works by government and public institutions. It has both an important effect on the economy and a direct impact on the daily lives of people as it is a way in which public policies are implemented (Azeem, 2007).

According to Porter (1985), procurement is categorized as a prop up activity. In recent times however, the procurement utility has started to get improved identification and class (Pearson *et al.*, 1996). According to van Weele (2005), top managers have progressively accepted procurement as vital business drivers (van Weele, 2005), and as affirmed by Gadde and Hakansson (2001) “what started as a clerical and administrative utility has developed into a tactically momentous profession”.

From BusinessDictionary.com (2014), procurement is a division inside materials management which is about the procedure of determining the organization's material and service requirements, selecting suppliers, agreeing terms, placing orders and receiving goods and services. Procurement by nature is a 'service' utility; accustomed to provide a complete supply-function service for users within the organization BusinessDictionary.com (2014).

Also, van Weele (2005) defines procurement as: "The management of the company's external resources in such a way that the supply of all goods, services, capabilities and knowledge which are necessary for running, maintaining and managing the company's primary and support activities is secured at the most favorable conditions." Additionally, van Weele (2005) stated that the procurement operations cover six activities:

- establishing the requirement of the goods and services desirable
- selecting and managing the best supplier
- negotiations with suppliers and write up contract
- place the order with the supplier
- monitor and control the order to secure supply
- follow up and evaluation

Procurement operations are also accountable for the company's customers and the company's supplier. From Leenders *et al.* (2006), this is Supply Chain Management (SCM). Leenders *et al.* (2006) asserted that in procurement, the focus is always on minimizing costs and times across the Supply Chain (SC) so as to benefit the final customer in the chain. Various conjectures use special terms when recounting the procurement process and structure. However, Leenders *et al.* (2006) presumed that terms like Procurement, Supply Management (SM) and purchasing have parallel

connotation as they are frequently used interchangeably. Traditionally, most firms have regarded procurement primarily as a clerical utility (Gadde and Hakansson, 2001 and Leenders *et al.*, 2006).

Sarpong (2007) defined procurement as the management of sustainable acquisition of goods, works and services to optimize value for money through a professional, auditable and transparent framework. He believes that any good procurement should have the following principles:

- Efficiency and Effectiveness: all procurement functions should aim at achieving the right quantity and quality at the minimum cost
- Competitiveness: the procurement process should ensure some competition among the competing parties
- Ethical approach: procurement process should avoid all practices that could lead to possible conflict of interest
- Fairness: all procurement should aim at achieving fairness and ensuring that all participating bidders are given equal opportunity to bid
- Transparency: the procurement process should be open enough to avoid giving competitive bidders advantage over other bidders.

These are in line with the World Bank's principles of procurement and it is therefore imperative to see these principles in all procurement operations. Any procurement without these principles and objectives should not be considered as a good procurement and it is not in the interest of the nation since all forms of procurements have these principles.

Companies are facing oppositions owing to globalization; this has prompted managers everywhere to the tactical benefits that can be gained through quicker use of procurement systems (Hardt *et al.*, 2007). Procurement has a lot of importance and its overall impact on company's financial accomplishment cannot be overlooked. Management of organizations needs to play the procurement system very well to access its gains. Procurement has to be considered as strategic and not clerical. This will significantly have impact on the overall accomplishment of the organization (Pearson *et al.*, 1996; Gadde and Hakansson, 2001).

Strategic procurement may well be defined as the method of planning, implementing, evaluating and controlling tactical operational procurement decisions. These activities are directed such that procurement operations towards opportunities may be consistent with the organizations capabilities to attain its long-term targets (Zheng *et al.*, 2007). Suppliers' management in the current business environment is very vital, since every organization needs good and unsophisticated suppliers. Therefore, every organization needs to have fresh approach of contacting suppliers. Organizations need different approaches to its acquisition processes and policies. Good relationships with suppliers have impact not only on suppliers' performance but also on the organization's performance. No business can be booming devoid of the support of its supplier foot.

The accessibility of procurement information systems can be measured by analysing whether the structure and communication reflects the underlying departmental technology (Rozemeijer *et al.*, 2003). In terms of the quality of people involved any corporate interventions require, according to Rozemeijer *et al.* (2003) a minimum purchasing skill base in the business units and at headquarters, so for carrying out the category management project, the corporate headquarters need to have specialized

knowledge of the particular synergy, the ability to make business managers pay attention, and the process and interpersonal skills to bring about the desired results (Campbell et al., 1995). Schiele (2007) observed that companies that had high levels of procurement maturity tended to identify higher savings potential when doing analytical work in their commodity groups. When the corporate coherence and procurement maturity has been determined, the appropriate procurement structure can be identified (Rozemeijer et al., 2003).

Procurement is to purchase the right quality of material at the right time, in the right quantity, from the right source, at the right price. The main objectives of procurement include: supplying the organization with a steady flow of materials and services to meet its needs, to buy efficiently and wisely, obtaining by ethical means the best value for every money spent, to manage inventory so as to give the best possible service to users at lowest cost and protect the government's cost structure (Baily *et al.*, 2005).

2.2 Procurement System

It is argued that a proficient organizational design provides a foundation upon which firms can pursue progressive supply strategies (Trent, 2004). However, regardless of its significance, clerical design has narrowly received attention in the Supply Management (SM) literature (Trent, 2004; Karlsen and Tollefsen, 2009). Organizational structure as defined by Wit and Meyer (2004) is the clustering of tasks and people into smaller groups. According to Wit and Meyer (2004), company's organizational system consists of organizational structure and organizational process and culture. The foundation of every business is its organizational system. Wit and Meyer (2004) defined organizational system as the way a company makes money. People within organizations are clustered with different tasks into divisions. This is

done with the organizational structure of the firm in mind. One example of this may be the procurement function.

The procurement function of companies can be classified as either centralized or decentralized. The combination of the two systems, conversely, is now practiced by a good number of companies (Gadde and Hakansson, 2001). The amalgamated structure has existed since some companies try to harvest the gains of the two extremes and conversely, trying to do away with the disadvantages of the two.

Using an external resource in organizing procurement might be dangerous. If the client organisation is not aware of the management of its suppliers even itself, the involvement of a new third party middle-hand, such as a consulting enterprise, cannot be expected to enhance the situation any better (Iloranta and Pajunen-Muhonen, 2012).

2.3 Centralized Procurement

“Centralized procurement means the purchasing of a bulk amount of materials for a business” (business.answers.com, 2014). A manager oversees what materials need to be purchased and buys a very large quantity in order to meet the demand for all employees. Usually only one person oversees the operation so that items are bought for a cheaper price. This means that the manager needs to have a great understanding of how resources are distributed. The person must also possess a great amount of knowledge with how fast items are used (business.answers.com, 2014).

Procurement centralization is nowadays a common way to leverage the benefits of indirect purchasing in an organization (Karjalainen, 2009). In centralized procurement, the procurement is coordinated and regulated from the headquarters of an organization. The main aim of it is to capture the economies of scale by unifying

the procurement processes of an organization's different units (Karjalainen, 2009; Lysons and Farrington, 2012). Usually this involves that a corporate-wide frame agreement is set for all the procurements to be made from certain preferred suppliers, and the amount of suppliers per product category is kept low (Karjalainen, 2009; Iloranta and Pajunen-Muhonen, 2012). Like this, spend per a supplier can be maximized and hence the procuring power of the buying organization increased. This can lead to a better negotiation position regarding prices, quality, compliance, and strategy with suppliers (van Weele, 2010).

Procurement centralization should be considered especially when the needs for procured materials between different business units are similar (Iloranta and Pajunen-Muhonen, 2012). Purchasing or procurement centralization also lowers the amount of invoices due to the consolidated purchasing spend. Hence, it also reduces the workload for accounts payables and simplifies the whole invoicing process from the viewpoint of the procuring organisation (Ritvanen and Koivisto, 2006).

Procurement centralization also supports global approach in the procurement of an international organization. An organization can reach even more economies of scale by using same international suppliers in its different country units. Therefore the globally consolidated purchasing power can be leveraged to negotiate better prices with internationally operating suppliers (Lysons and Farrington, 2012).

2.3.1 Advantages of the Centralized Procurement System

Some advantages of the centralized procurement as enumerated by Iloranta and Pajunen-Muhonen (2012) are:

1. Consolidation of procurement volume brings purchasing power and economies of scale.

2. Mutual procurement prices
3. Standardization of procurement practices
4. More efficient procurement organizations
5. Cumulative procurement expertise due to centralization of purchasing roles

2.3.2 Disadvantages of the Centralized Procurement System

According to Iloranta and Pajunen-Muhonen (2012), some of the disadvantages of the centralized procurement system are:

1. Limit of decision making of the business units
2. Might gain resistance in the business units
3. Narrow focus on the procurement personnel
4. Connection between procurement and other administrative functions can be weak
5. The distance between the internal customers and the procurement personnel can be large

2.4 Decentralized Procurement

Contradictory to centralized procurement is decentralized procurement. According to Leenders and Johnson (2000), decentralized procurement is defined as when business units, plants and divisions controlled the main procurement activities. This indicates that different divisions/ business units are accountable for their own procurement activities. Decentralized procurement mostly is practice by companies with business units or branches. According to van Weele (2005), the business unit managements are accountable for all its procurement activities. Decentralization is ‘the redistribution of functions or tasks from central units in organizations to more widely dispersed units, that is it is about where in an organization particular functions are best carried out.

According to Gadde and Hakansson (2001), a decentralized procurement operations is also good for project based businesses. They stressed that in the decentralized procurement system, the buyers are frequently accountable for a bulky variety of products, which are procured in smaller amount contrasted to a centralized procurement function (Gadde and Hakansson, 2001).

In the decentralized model separate business units within an organisation are responsible of their own procurement. Hence, the business units have a profit-loss responsibility of their own in their procurement (van Weele, 2010). Business unit-driven organizations usually prefer decentralized procurement model as the users of the procured materials can affect the decision making more and hence their needs are satisfied with higher probability (Ritvanen and Koivisto, 2006; Iloranta and Pajunen-Muhonen, 2012). Secure local supply and overall internal satisfaction are also achieved more easily by these organizations due to the close buyer-seller relationship in the local business community. Hence, decentralized procurement or purchasing model supports local approach in procurement (Lysons and Farrington, 2012). Consequently the great benefit of decentralized model is that the procurement is executed in terms of supporting the organization's key business as well as possible.

2.4.1 Advantages of the Decentralized Procurement System

Some of the most prominent advantages of decentralized procurement as summarized by Iloranta, Pajunen-Muhonen (2012) are:

1. Procurement supports fully the key-business of the business units
2. Direct profit-loss responsibility for business units
3. Suppliers and internal customers are in close connection with each other

2.4.2 Disadvantages of the decentralized Procurement System

According to Iloranta, Pajunen-Muhonen (2012), some of the disadvantages of the decentralized procurement system are:

1. Procurement volumes are scattered and negotiation leverage is loss with suppliers
2. Suppliers' contract, procurement prices and conditions are different in separate business units. As a results of overlapping work
3. Difficulty of standardization
4. Difficult to develop procurement expertise
5. Total cost of procurement on enterprise level are difficult to perceive and control
6. Main stress is the use of local suppliers; global opportunities are hard to utilize

2.5 Centralization versus decentralization procurement

Another improvement strategy for procurement is the use of centralized and decentralized procurement strategies for different categories of goods and services. There are many arguments for centralization, specifically better control and expertise. However, the answer for poor procurement practices should rather be sought in strategic sourcing. An analysis of procurement requirements at all levels should be done and high risk–low cost items (known as bottleneck items) and high risk–high cost items (strategic items) should be purchased on a centralized basis with longer-term contracts and high levels of contract and supplier management. Leverage items that are low risk but high cost can be purchased through one agency, for example a procurement consortium. The different public institutions then order from the contractor/supplier against a contract, typically through e-procurement, and distribution takes place on a decentralized basis. Here, contract management, and

particularly feedback on supplier performance, is essential for this type of purchasing to be efficient. Non-critical, low risk–low cost items (also known as routine items) can be purchased on a decentralized basis by means of quotations from local suppliers (Simchi-Levy *et al.* 2009).

Over and above the proposed recommendation, it is important that departments, municipalities and municipal entities engage with the employment of qualified procurement practitioners, training and employment of internship programmes, development of an effective monitoring and evaluation tool, creation of incentive programmes to motivate good performance, tools (information communication technology) and also good leadership (Ambe and Badenhorst-Weiss, 2011).

2.6 Hybrid Procurement

The main benefit of using a hybrid procurement operational structure approach is that it provides the opportunity to combine the key features of centralized and decentralized structures (Leenders and Johnson, 2000), although they differ in the extent to what is centralized and what is decentralized (Monczka *et al.* 2010). The hybrid procurement is applicable if local sourcing preferences are vital parallel to exploiting the strengths of central planning, which can be referred to as centralized pricing with decentralized procurement (Karjalainen, 2010). The hybrid operating model involves a central structure of activities up to and including the completion and management of the central contract/framework agreement for the whole organization to use, meanwhile, the tasks after contracting (e.g. ordering) are considered to be decentralized to local units (Karjalainen, 2010).

The most common hybrid procurement structure, according to Monczka, has centralized strategic design, a coordination of major spending categories and some support activities, with decentralization of most of the actual procurements. This allows all of the procurement activities to be co-ordinated with a free flow of information through the internet, intranets, and information sharing systems (Monczka et al. 2010). The hybrid procurement system can also be called federal hybrid procurement system.

In the federal hybrid system, the business units or divisions award the central purchasing office with the power to develop policy and provide them with necessary services with specific mandates, the communication and responsibility occurs between all procurement parties (Cousins et al. 2008). According to Cousins et al. (2008) the federal structure has some basic rules; one is to have common rules and procedures in order to avoid conflicts with the corporate policies and strategies. Another is dual citizenship where each staff member is concerned equally about his own department's success and the overall organizations success. The third is giving away power to carry out activities and make decisions to the lowest level possible, meanwhile the centre acts as a coordinating device that answers to the divisions.

A federal procurement structure means that divisions are in constant contact with one another, and they share sourcing information and have both their divisions' interest in mind as well as the organizations as a whole (Cousins *et al.*, 2008). However, striking the right balance between corporate intervention and business unit autonomy is difficult (Rozemeijer, 2000).

2.7 Selecting procurement Structure

The selection between the two typical organizational structures, the centralized structure against the decentralized structure, is decided by approaches. According to Baily *et al.* (2005) organizations copied the successful organizational structures of another organization as leading management consultants promote their favorite organizational structures. Leenders and Johnson (2000) supported Baily *et al.* (2005) argument and said that identified consultants are major influencer when decision on organizational structure is been taken. Leenders and Johnson (2000) discovered that giving the procurement officer the chance to choose the right structure for procurement operation was a primary factor. From Baily *et al.* (2005), effective management always make an effort to construct its organizational structure on more objective fundamentals. In consideration for selecting organizational structures supply considerations are ignore.

2.8 Factors Affecting Procurement Structure

This heading discus some of the most outstanding factors, as covered by literature, that influenced the selection of procurement structure. The factors are divided into context, information and power, and procurement related factors.

2.8.1 Context Related Factors

Context related factors, may be considered as one of the factors affecting the selection of procurement structure. This is because context related factors are related to state of affairs of the company. Procurement structure according to van Weele (2005) is very much dependent on organization distinctiveness and situational factors. One of the core lessons of the contingency theory is that there is no single optimal way to

structure organizations rather it is dependent on some distinctiveness of the organizations situation (Carlisle, 1974).

2.8.1.1 Contingency Theory

According to Carlisle (1974), top managements are guided by contingency theory in choosing the appropriate management tools for a given situation. The core of contingency theory according to Carlisle (1974), is that management concepts are universally not applicable but are only right if the appropriate conditions exist in a given situation. In other words, the deployment of the number of administrative tools or concepts is contingent on the particular situation.

The choice of organizational structure is an administrative tool. Until 1950, it was held that one organizational structure was optimal and most effective for every company. This structure was characterized as hierarchical, where the planning and decisions were made at the top of the ladder and the actions of the lower levels was subjugated by stringent job definitions and predefined by the top (Donaldson, 1999; Karlsen and Tollefsen, 2009).

Scholars, by the end of the 1950, started to apply the contingency theory to select organizational structure, a mixture that has come out to what is now known today as Structural Contingency Theory (Karlsen and Tollefsen, 2009).

2.8.1.2 Structural Contingency Theory

According to the Structural Contingency Theory, there is no organizational structure that is most effective for all organizations (Karlsen and Tollefsen, 2009). It is paramount that organizations all structure that is contingent to its situation. This situation can influence the selection of the organizational structure as it can be

affected by a number of contingency factors. A number of contingency factors are recognized thanks to the Structural Contingency Theory. Some of the factors as enumerated by Karlsen and Tollefsen (2009) are task uncertainty, technology, environmental change, technological change, size and strategy. Donaldson (2001) reduced the factors to size, task uncertainty and task interdependence. The size is related to the number of employees of the organization. The size as contingency factor affects the organizational structure in some way. According to Karlsen and Tollefsen (2009), when an organization has a small number of members, a simple centralized structure is satisfactory. Since the top manager has capacity and enough overview of the organization, decision authority rest entirely on him/her. From Donaldson (1999), as the organization grow this simple structure is replaced by a bureaucracy featuring a tall to bottom extensive specialization. So, this situation makes decentralized system close to necessity. The internal structural complexity and length of hierarchy of centralized system makes it infeasible (Donaldson, 1999).

The task uncertainty according to Karlsen and Tollefsen (2009) is caused by environment and technological changes. Modernism can be used to reinforce task uncertainty which is influence by environment technology. Task with low uncertainty is most efficiently performed in a centralized operational system. This is because it allows efficient planning and coordination. For high task uncertainty companies can rely more on ad hoc solutions (Donaldson, 1999; Karlsen and Tollefsen, 2009). Firm should reduce formalization and have more decentralized structure.

The task interdependence is referred to the activities of the organization in relation to different sub units that are connected to each other. A typical peculiarity of interdependence is pooled, sequential and reciprocal interdependence (Thompson,

1967; Karlsen and Tollefsen, 2009). The divisional structure according to Donaldson (2001) is a decentralized structure. This is because central division cannot coordinate the interdependent activities. Nevertheless, the higher the task interdependence, the more centralized the coordination (Donaldson, 2001; Karlsen and Tollefsen, 2009).

Donaldson (1999) stated that the characteristics of the task interdependence reflect the influence of the environment in which the organization is located. In line with this, organizations need to fit to the characteristics of the environment in which it is located. Within structural contingency theory, organizational structure involves more than the tension between a centralized and decentralized structure (Karlsen and Tollefsen, 2009). From Donaldson (2001) and Karlsen and Tollefsen (2009), some structural dimensions are specialization, standardization, formalization, hierarchical levels and span control. However, since some of these extra dimensions are touched upon within the tension between a centralized and decentralized structure, the contingency factors mentioned above, many still be relevant for selecting between the centralized and the decentralized procurement structure.

Additionally, more authors have performed studies to determine the underlying factors that influence the selection of procurement structure. These factors as enumerated using number of theories and viewpoints and can be talk of as information and power related factors and procurement related factors (Karlsen and Tollefsen, 2009).

2.8.2 Information and Power Related Factors

A factor that can influence the structure of the procurement function is the relationship between the centralized headquarter and the different divisions (Karlsen

and Tollefsen, 2009). These are referred to as information and power related factors. Agency theory is a useful issue in the information and power related factors. According to Eisenhardt (1989), agency theory presumes that individual is bounded rationally, self-interest and risk aversion. Vibert (2004) explained that agency theory is like one party (the principal) delegates work to different party i.e. the agent.

The first problem of the agency theory is the agency problem which is caused by two situations. Having conflicting goals between the principal and the agent is the first situation and the second is when the principal finds it difficult to monitor and control the agent activities. According to Eisenhardt (1989), the second problem is more risk as it comes from both the principal and the agent having different preferences. Agency theory addresses these problems through determining the most efficient contractual arrangements between the principal and the agent. However, contractual problems often arise due to moral hazard and adverse selection. Moral hazard occurs when the agent does not deliver the agreed upon effort, and adverse selection arises when the agent claims to have certain skills and competences, which the principal cannot verify (Eisenhardt, 1989).

Some have argued that the relationship between a principal (e.g. centralized headquarter) and an agent (e.g. division or business unit) may influence the choice of organizational structure. Carlisle (1974) argues that one of the advantages with a decentralized structure is that people are more productive when they have more freedom and control over their jobs. However, with a decentralized structure, there is a risk of “individuals who do not accept the organization's goals” which would alter some of the advantages of a decentralized structure. Vagstad (2000) argues that the choice of organizational structure should be determined by the trade-off between two

important factors: bureaucracy cost and agency cost. The logic is that a centralized structure is costly and often not very efficient due to bureaucracy costs; costs that are related to the fixed costs of the daily operation of the department. At the same time, costs related to decentralized structure may be agency costs; costs that arise as a result of conflicting objectives between the principal and the agent. Hence, when the bureaucracy costs are lower than the potential agency costs, a centralized structure may be favored, while a decentralized structure may be favored when the potential agency costs is lower than the bureaucracy costs.

2.8.3 Procurement Related Factors

Different types of procurement situations are said to have different demands on the procurement structure (Gadde and Håkansson, 2001). Within supply chain literature, several criteria affecting the decision of centralization or decentralization have been identified. These factors may be referred to as purchasing related factors. Several authors mention product type as a central factor affecting procurement structure and procurement strategy (Corey, 1978; Kraljic, 1983; van Weele, 2005).

High volume products with a predictable usage pattern calls for centralization, in order to reap cost benefits of aggregated purchase (Corey, 1978). Corey (1978) argues that products possessing some specific characteristics should be handled in a decentralized procurement department. These products and characteristics are: standard products with need for local service that are ordered in small amounts and subject to unpredictable usage pattern and immediate need, products that are subject to high engineering involvement, products with high need for coordination of the purchased parts with production schedules, and products with unique use requirements. A way of classifying different product types is to use portfolio models. Such a model has been developed by Peter Kraljic (1983).

The Kraljic-model classifies four different product types: Non-critical items, leverage items, bottleneck items and strategic items. According to Kraljic (1983), the handling of the different product groups are as follows: Non-critical items may be handled at a decentralized level, due to the low strategic importance and the low supply market complexity. At the same time, a centralized approach may be favorable in order to achieve economies of scale, due to standardized products.

Leverage items may be handled at both a decentralized level and centralized level. A decentralized level is favorable due to the low complexity of the market, while a centralized approach is favorable in order to strengthen and to exploit the purchasing power. Bottleneck products may be handled at a decentralized level, but there is a need for centralized coordination in order to ensure supply of products that are subject to production scarcity. Strategic items should be handled at a centralized level, in order to ensure supply of products that are of high strategic importance and are subject to market complexity.

The recent globalization has led to a development of multinational business operations (Corey, 1978). This new business environment means that many companies need to negotiate with foreign sources, which may be both difficult and time consuming (Corey, 1978). Thus, geographical location is an important factor affecting whether to centralize procurement or not. According to Corey, international negotiations may call for special knowledge and skills, which may be difficult to handle by a decentralized organization. Thus it should be handled at a centralized level in the organization (Corey, 1978). On the other hand, it may be difficult to achieve efficient coordination across international and cultural borders. As a consequence many firms are utilizing a decentralized structure (van Weele 2005).

One element within product type is commonality of purchase requirements; the greater the commonality of the products being purchased, the more benefits can be obtained by having a centralized structure (van Weele, 2005). Several academics stress supply market characteristics as an important factor in relation to the structure of purchasing strategies (Corey, 1978; Kraljic, 1983; van Weele, 2005). Thus supply market structure is highlighted as an important criterion. When the supply market is characterized by one or a limited number of suppliers, which often give the supplier an advantage due to strong bargaining power, it may be necessary to utilize a centralized procurement or purchasing function in order to achieve a better negotiation position (van Weele, 2005). This supported Corey (1978), who states that “corporate headquarters often negotiates with large sellers in oligopolistic industries”. He further states, in relation to purchasing power, that “by centralizing purchases at the corporate level, companies may command attention at higher management levels in supplier organizations (Corey, 1978). According to Corey, this might lead to a more long-term commitment between the parties. A centralized procurement function in an oligopolistic market may, in addition to provide favorable prices, negotiate better service at the user locations and to ensure long-term supply of the product (Corey, 1978).

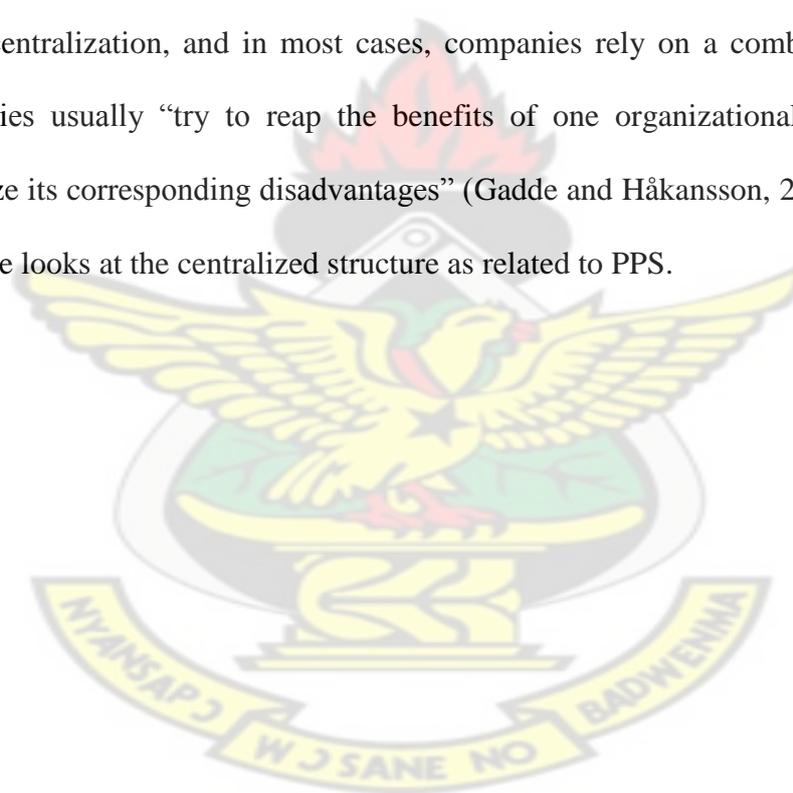
Savings potential is also a relevant factor when deciding on the procurement structure. Many raw materials are sensitive to volume by utilizing a centralized procurement function one is able to accumulate the quantity in order to reap savings potential (van Weele, 2005). Aggregating procurement activities through centralization may be an effective way of achieving large cost savings, especially related to standardized parts, supply items and non-product purchases (Corey, 1978).

It is claimed by several authors that the expertise required and the efficient use of personnel may affect the organizational structure (Corey, 1978; van Weele, 2005). When specific expertise is required for effective buying, it may be useful to have a centralized purchasing approach, since it may be difficult to provide the necessary expertise in several decentralized departments (van Weele 2005). This is further underpinned by the fact that centralization may improve the efficient use of scarce managerial resources (Corey, 1978). On the other hand, attaining expertise within procurement might be difficult. One reason for this is that the attitude towards purchasing, especially in the past, has suffered from low status (Gadde and Håkansson, 2001). However, centralization has been viewed as a factor for attracting competent personnel and the expertise required (Corey, 1978). In addition, Corey (1978) argues that “to justify the development of procurement expertise in any product areas requires a sufficient volume base”. This critical mass of volume can be achieved by pooling total product requirements in the company and by centralizing the procurement responsibility (Corey, 1978).

Price fluctuations and political climate may also affect the desired structure of the purchasing function (van Weele, 2005). If material prices are highly sensitive to the political and economic climate, a centralized procurement approach may be efficient (van Weele, 2005). A centralized approach may be favorable in coping with shortages of supply as a consequence of political and governmental regulations (Corey 1978). This is due to the fact that a centralized procurement function may identify alternative sources of supply, negotiate contracts, and allocate the resources within the organization (Corey, 1978).

The degree of customer demands may also affect the purchasing structure. In situations where the customers dictate which products that should be purchased, a centralized approach will not be needed (van Weele, 2005). This is due to the fact that it will not be possible to reap any procurement synergies across the entire organization, as long as there are strong local restrictions on what needs to be purchased.

As seen above, there are several factors that might affect the choice of purchasing structure. However, there is usually not a clear-cut decision between centralization and decentralization, and in most cases, companies rely on a combination of both; companies usually “try to reap the benefits of one organizational form and then minimize its corresponding disadvantages” (Gadde and Håkansson, 2001). This thesis therefore looks at the centralized structure as related to PPS.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

Methodology is the understanding of how methods are constructed, and the different methodological approaches each have different concepts for when and how to use the various methods for developing business knowledge (Arbnor, Bjerke, 1996). Our methodology is a case-based qualitative research which allows for a flexible structure that responds to the needs and nature of the research situation. This means we have no intention of testing theory or collecting quantitative data for producing generalizable findings, such as deduction yields, on the contrary we want to explain PPS's situation (Arbnor, Bjerke, 1996).

3.1 Research design

The purpose of this study was to assess a centralized operational procurement system in terms of service organization and their skill levels. The study is qualitative in nature. The case study is the Process and Plant Sale Company. Participants were procurement professionals from the procurement department and other workers of the company. The study was conducted primarily through the use of structured questionnaire and observation.

The study involved the following stages

Stage one: observation was conducted in the procurement department.

Stage two: Interview with the Procurement Manager to ascertain his view on the centralized procurement system.

Stage three: Interviews with a sample of the Company's workers: procurement officers, sales department and the stores officers. Information was sought on what role

the procurement department played towards to other functions, how other units perceived the procurement department's role and service and their attitude towards changes.

This designed was purposefully to include multiple research methods as different data collection strategies have different strengths and weaknesses (Saunders *et al.*, 2003). The structured questionnaire for example gave us insight into participants' feelings and thoughts. However, people's behaviours do not always match their words and therefore observation was useful to understand how they behaved under particular circumstances. The observation also helped to place the questionnaire data in context and gain an in-depth understanding of the centralized procurement system of the company.

3.1.1 Sampling

The Case study is limited to Process & Plant Sales Limited, and the participants are all members of PPS procurement department: the Procurement Manager; sales department and the stores officers. This was done for the researcher to gain a cohesive understanding of the procurement process of the organization both in terms of the centralized procurement and in terms of communication and information flow. The duration of the study was six months, representing a cross sectional time horizons where the researcher get a snapshot of a particular time, although the researcher provide some historical aspects in order to place the snapshot in context (Saunders *et al.*, 2003). The procurement department was chosen for this reasons; to gain a cross sectional view of the procurement department.

3.1.2 Data collection methods

The systems approach uses secondary and primary material from direct observations and questionnaire (Arbnor, Bjerke, 1996). Our methods of data collection were structured questionnaire and observations. The internal and the official data were gathered for a more formal and precise indication of what had been seen and heard during the observations.

Questionnaire was administered to the employees from within the procurement department, sales and stores. Questions were asked in relation to the specific organizational context.

3.1.3 Data analysis

The data collected through administered of questionnaires and interview will be analyses and presented in tabular form with help of SPSS. Bar, Pie chart will be used to analyse and drawn conclusion on the data collection. Making complied in other to make analysis of data effective and efficient will also do the finding.

3.2 Verification

The requirement in systems approach is not so much that definitions must correspond with existing theory or be operational, but that they are perceived to be important and relevant to the creator of knowledge as well as other participants from the real systems (Arbnor, Bjerke, 1996). Further, the measurements are not aimed at precision but at a pragmatic position. The important thing is what a measurement can be used for, not the way a measurement was made or its precision, thus, the concept of reliability is rarely used in the systems approach (Arbnor, Bjerke, 1996). The procedure for guaranteeing, to the extent possible, that measurements are correct, is to reflect the real system from as many angles as possible (Arbnor, Bjerke, 1996).

Hereby it took the administration of questionnaire and observations of secondary material as it was possible. This increased the validity to the extent possible, which it was mostly able to confirm that the data was telling us what we thought it was telling us (Saunders *et al.*, 2003). Collecting data from one case means that the collection of information will be more detailed (Saunders *et al.*, 2003), and a case study is by nature highly contextual our results are only meant to be applicable for our particular organization in practice. The benefit of allowing a close in-depth look at our real system and its environment allows for a deep understanding of the situation. Such a close look, into one case, makes it possible to bring into perspective a specific problematic point of view which other firms may also face. Since that case-study research results can potentially be used for inspiration for other similar organization (Flyvbjerg, 2006). However, the purpose of the research is not to produce a theory that is generalizable to all populations, it is merely to try to explain what is going on in our particular research setting (Arbner, Bjerke, 1996).

3.3 Delimitations

It is necessary to delimit the study object in relation to its environment, while at the same time noting its relations to and from this environment (Arbner, Bjerke, 1996). In terms of our external system delimitation, the study concentrated primarily on centralized procurement. Since there is a limit to how much detail can be considered. It will always be necessary to stop at some level of magnification (Arbner, Bjerke, 1996). Academic delimitations are within the field of sourcing, in particular: procurement organizations, procurement skill levels and procurement category management. It would have been better to study the case company for a longer period of time, e.g. study the full process of carrying out procurement and observing its

implementation phase. However, due to academic time constraints, the duration of this case-study was around six or seven months.

Finally, one interview was granted with the Procurement Manager, due to his time constraints; since, during the course of this study, he took on a position as information manager in addition to manage the procurement department. Thus, our research is delimited of his managerial perceptions: in terms of how the project was progressing and how environmental factors came into effect.



CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

The data collected using the questionnaire is presented in this chapter and covers the results and discussion of the study. The results are presented based on the sequence in which the information was elicited. The first aspect dealt with the building a team. The second dealt with the relationship between PPS and its customers. The third aspect dealt with quality of people involved in procurement at PPS. The fourth aspect dealt with suppliers' relationship and the last aspect was about PPS and its branches. That is: What are your views on the centralized procurement system of Process and Plant Sales Limited of Ghana; are you able to procure without impediment; and what are some of the challenges facing centralized procurement system of PPS. The data are presented using figures and tables drawn from SPSS output. A five-point Likert Scale was used for the coding. For example; one (1) = strongly disagree, two (2) = disagree, three (3) = unknown, four (4) = agreed, five (5) = strongly disagree.

The analysis is divided into two. The first part is about the views of workers of PPS on centralized procurement practices of the company and the second part discusses the view of the PPS procurement manager on the centralized procurement system of the company.

4.1 Centralized Procurement System of PPS

Building a team for procurement, customer relationship, suppliers' relationship and the centralized and branch relationship are some of the items which will be discussed. These will help to evaluate the centralized procurement system of PPS.

4.1.1 Building a Team

According to Heikkilä and Kaipia (2009), the purpose of building a team is to bring together the required knowledge and resources for coordinated procurement and to ensure strong commitment from independent business units. In terms of implementing an effective co-ordinated procurement approach, a structured top-down process for cross business collaboration needs to be tailored to each business (Rozemeijer, 2000).

The researcher sought to find out whether the company has an effective team for efficient and effective sourcing. All the PPS workers who responded to the answered in affirmatively. This is an indication that the company has very efficient team for efficient and effective sourcing. According to the workers, the supply chain departments constituted the procurement team. The supply chain departments are sales department, the centralized procurement unit, material department and warehouse and distribution department. The managers of these departments of the company constitute the procurement team. For practice, Essig (1998) developed the following recommendations for procurement managers when building a cross functional team: (1) Find the right consortium partners and adopt a compatible target system; (2) Develop working rules for the consortium; (3) Determine the organizational structure of the consortium, and its operations; (4) Develop a cooperative corporate identity to avoid staff problems; and (5) Try to avoid an imbalance of incentives and contributions of members (Essig, 1998). In response to the question “Does PPS have an effective team for efficient and effective sourcing?” 40% of the respondents said the PPS procurement system is very effective.

Table 4.1: Effectiveness of PPS Procurement System

	Frequency	%
Very effective	12	40.0
Effective	18	60.0
Unknown	0	0
Not effective	0	0
Not effective at all	0	0
Total	30	100

Source: Field survey, 2014 ** Cronbach Alpha = 0.78

Majority (60%) of the respondents said that PPS procurement system is effective. This implies that PPS procurement system is effective. This also means that PPS is able to procure goods to supply all branches so as to satisfy customers. Ary, Jacobs and Razavieh (1990) state that, Cronbach alpha is used when items have multiple scores. Cronbach Alpha value of 0.78 which is greater than 0.7 shows that the responses are reliable. Further, procurement manager overseeing the procurement process, and in order to sell the goods internally, the manager could develop a compelling reason for the subject-matter experts' participation in the team, armed with key information about the procurement process and providing a carrot by stating the potential savings or value that can be created (Handfield *et al.*, 2011). These internal selling abilities, according to Tassabehji and Moorhouse (2008), have been identified by procurement managers in practice to be the most important skills for a procurement manager to have, to increase effectiveness.

4.1.2 Relationship between PPS and its Customers

To assess the effectiveness of the procurement system of PPS, first, it is important to find out their customer relation. In view of this the respondents were asked to indicate whether PPS was able to meet its customer's request. The Table 4.2 below presents

the responses. 20% of the respondents do not have ideas on whether the company is able to meet its customer's request. Majority (80%) of the respondents chose yes. This shows that PPS is able to meet its customer's request.

Table 4.2: Responses on PPS meeting its customer's request

	Frequency	%
Yes	24	80.0
No	0	0
No idea	6	20.0
Total	30	100

Source: Field survey, 2014

According to those who chose no idea, the company communicates their inability to meet the request of customers through formal meetings with the customers.

Table 4.3: The relationship between PPS and its customers is cordial

	Frequency	%
Strongly disagree	0	0
Disagree	0	0
Unknown	6	20.0
Agree	12	40.0
Strongly agree	12	40.0
Total	30	100

Source: Field survey, 2014 ** Cronbach Alpha = 0.81

The Table 4.3 above shows that 20% of the respondents do not know whether PPS had cordial relationship with its customers. 40% of the respondents agreed that PPS had a cordial relationship with its customers. 40% of them strongly agreed that PPS had a cordial relationship with its customers. Cronbach Alpha value of 0.81 which is

greater than 0.7 shows that the responses are reliable. This implies that the relationship between PPS and its customers is cordial.

Table 4.4: The procurement system of PPS has greater impact on its ability to serve its customers

	Frequency	%
Strongly disagree	0	0
Disagree	0	0
Unknown	0	0
Agree	18	60.0
Strongly agree	12	40.0
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.81

From the Table 40% of the respondents strongly agreed that the procurement system of PPS has greater impact on its ability to serve its customers. 60% of them agreed to the statement. This depicts that procurement system has greater impact on customer service.

It could be said that PPS procurement system has help to improve the customer services of the company. Cronbach Alpha of value of 0.81 which is greater than 0.7 shows that the responses are reliable.

4.1.3 Quality of people involved in procurement

The understanding of ‘skills’ has traditionally been associated with the level of training necessary for a job and the knowledge and experience that an employee has gained in a (Cousins et al. 2008). There is a relationship between strategic procurement and strategic skills, in the way that once a procurement department becomes strategic so must it’s staff, without strategic skills the organization cannot reach its strategic goals (Cousins et al. 2008). Based on Cousins assertion, the

respondents were asked to indicate whether skills have a direct impact on the ability of procurement professionals to fulfill their role proficiently.

Table 4.5: Responses on skills and its impact on the ability of procurement professionals

	Frequency	%
Strongly disagree	6	20.0
Disagree	0	0
Unknown	0	0
Agree	12	40.0
Strongly agree	12	40.0
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.96

The reliability test shows that the response is reliable. It could be inferred from the Table above that 20% of the respondents chose strongly disagree. However, 40% of the respondents each chose strongly agree and agree. This implies that skills have a direct impact on the ability of procurement professional to fulfill their role proficiently. According to the respondents, the procurement manager of PPS possesses all the following skills which help to improve procurement processes:

- *Technical knowledge*: Using new technology for effective procurement decision-making
- *Basic administrative skills*: Undertaking negotiations and discussions
- *Advanced procurement process skills*: Essential skills for creating value and strategic decision making

According to Handfield et al. (2011), every procurement manager should possess the following skills; team building and leadership abilities, decision making ability, power to influence internal users and suppliers, and a compromising attitude for reaching a team consensus.

4.1.4 Suppliers Relationship

According to Cousins et al. (2008), supplier relationship management is a process which consists of inputs and outputs, with a focus on business deliverables i.e. the product or service. A centralized system is a decision process used to identify which suppliers should provide a group of products or services, the form of the contract, the performance measures used to measure supplier performance, and the appropriate level of price, quality, and delivery arrangements that should be negotiated (Handfield *et al.*, 2011).

The researcher sought to find out whether the selection of suppliers follow the PPS lay down rules of procurement.

Table 4.6: Selection of suppliers and PPS procurement system

	Frequency	%
Yes	6	20.0
No	0	0
No idea	24	80.0
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.78

The Cronbach Alpha value of 0.78 shows that, the responses are reliable and it is good for analysis. Majority (80%) of the respondents had no idea as to whether the selection of suppliers follows the company's lay down rules of procurement. However, 20% of them said the selection follows procurement guidelines. According to the respondents, the suppliers are selected through: sole sourcing; procurement team; and procurement team with recommendation from management. The goal of PPS centralized procurement system are to develop competitive advantage, support and leverage supplier's core competencies, develop best-in-class supplier, support the company's overall strategy and improve value-added services beyond simple

purchasing agreements. The analysis shows that respondents had no idea on whether the procurement system of PPS had influence on the suppliers ability to meet the company's time line.

Not all companies have supplier relationship management as such, since the spectrum can range from having a supplier alliance where organizations aim is to develop a relationship that is long-term mutual beneficial and consist of close collaboration to having a transaction based relationship 'arm's length' (Cousins *et al.* 2008). The supplier partnership, according to Cousins *et al.* (2008) is a key strategy for organizations to achieve a competitive advantage.

Table 4.7: Monitoring and evaluation of suppliers

	Frequency	%
Yes	12	40.0
No	0	0
No idea	18	60.0
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.79

The respondents were asked to indicate whether the company monitor and evaluate its suppliers for value for money. From the Table, 40% of the respondents chose yes. Majority (60%) of them chose no idea. This is an indication that to some extent monitoring and evaluation of suppliers are done for value for money. The Cronbach alpha value of 0.79 is an indication that the responses are reliable for inference. The company does this to get competitive advantage.

All those who said monitoring and evaluation of suppliers are done said it is through a lay down procedure coordinated by procurement manager.

Table 4.8: What is the relationship with the suppliers like at PPS?

	Frequency	%
Not cordial at all	1	3.3
Not cordial	0	0
Somehow cordial	2	6.7
Cordial	27	90
Very cordial	0	40
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.83

From the Table above, 3.3% of the respondents chose not cordial at all, 6.7% chose somehow cordial and majority (90%) of the respondents' chose cordial. This shows that there is a cordial relationship between the company and its suppliers. The Cronbach Alpha value of 0.83 indicates that the responses are reliable.

According to Monczka *et al.* (2010), there are multi-levelled decision making in procurement depending on the time frame and on what level the decisions are made, the levels are: strategic; tactical; and operational. Long term decisions are made at a strategic level by senior management, medium-term decisions are tactical and aligned with the overall strategy, and for day-to-day operations the decisions need to be quick and on the spot, and tactical decisions straddle the two (Monczka *et al.* 2010). In large corporations the strategic decisions are done in a central sourcing group or at corporate headquarters while operational and tactical decisions are decentralized locally (Monczka *et al.* 2010).

The approved process for choosing the right supplier acceptable to the company is firstly, a supplier offering the lowest and cheapest price; secondly, supplier capability to provide the required goods and services and supplier reputation and proof that the supplier is a legally registered and operating business. As such, for every supplier that

PPS engages with should demonstrate by way of providing basic documents that show that the firm is not implicated in some illegal activities. Variables connected to supplier capability considered by the firm during supplier selection and decision to supply to PPS include among other examples were, supplier conduct as reflected by references from current clients, problems regarding scheduled deliveries, quality, returns policy, answering questions and in general the overall purchase to pay (P2P) process.

4.1.5 PPS and its breaches

Centralization of decision making is, according to Monczka *et al.* (2010), appropriate for: Managing relationships with critical suppliers; developing electronic procurement systems; implementing company-wide best practices; negotiating company-wide supply contracts; managing critical commodities, and the standardization of procurement processes takes place in strategic sourcing. It is in centralization that a platform to co-ordinate plans is provided, by linking together corporate, business, and purchasing strategies. In view of the above the respondents were asked to indicate who takes decision to supply or not to supply the request of the breaches. All the respondents chose the centralized procurement team. This shows that the centralized procurement unit of PPS supplies the requisitions of the branches. The central unit procures in large quantities and supply to all branches. This may be done with respect to Monczka *et al.* assertions above.

When the respondents were asked if the customers are supply without delay, all of them chose yes. This means that the centralized procurement unit of PPS is able to provide the requisitions of it branches. The respondents were then asked to indicate whether the procurement system of PPS is very effective and it helps the breaches to

meet the supply of its customers. The Table below depicts the responses of the respondents.

Table 4.9: Response on whether the procurement system of PPS is very effective

	Frequency	%
Strongly disagree	0	0
Disagree	6	20.0
Unknown	4	13.3
Agree	18	60.0
Strongly agree	2	6.7
Total	30	100

Source: Field survey, 2014 **Cronbach Alpha = 0.83

The Cronbach reliability test shows that the responses are reliable. The analysis from the Table above shows that 6.7% of the respondents chose strongly agree, 13.3% of the respondents chose unknown and 20% of them opted for disagree. However, 60% of the respondents chose agree. This is an indication that PPS procurement system is very effective. The company with its centralized procurement system is able to meet the numerous requisitions from its branches. The branches are very much pleased with its central unit and its operations.

The respondents were asked to provide some of the positives of centralized procurement as practiced by PPS. The Table below illustrates the responses of the respondents.

Table 4.10: Positives of Centralized Procurement

	Frequency	%
Managing relationships with critical suppliers	9	30.0
Developing electronic procurement systems	4	13.3
Implementing company-wide best practices	11	36.7
lowing the amount of invoices due to the consolidated purchasing spend	6	20.0
Total	30	100

Source: Field survey, 2014

From the Table above, 13.3% of the respondents went for developing electronic procurement systems, 20.0% also went for lowering the amount of invoices due to the consolidated purchasing spend, 30.0% of the respondents chose managing relationships with critical suppliers and 36.7% chose implementing company-wide best practices. It could be inferred that some of the positives of the centralized procurement of PPS are:

- lowering the amount of invoices due to the consolidated purchasing spend
- Managing relationships with critical suppliers
- Implementing company-wide best practices

Good procurement practices followed the following:

- High proportion of time is spent on quick fix and routine operations
- Relationship between parties is based on price and availability
- Negotiations are minimal or based on price alone, win – lose
- Little inter-organizational communication takes place because of purchasing low visibility
- Clerical efficiency
- Small saving through consolidations 2-5%

According to the respondents, the centralized procurement practices at PPS if not the best in the country may be among the best. Let us look at some of the challenges facing the centralized procurement system of PPS.

4.2 Challenges Facing Centralized Procurement System of PPS

One of the objectives of the study is to enumerate some of the challenges facing PPS centralized procurement system. In order to develop good centralized procurement strategies, O'Brien (2009) suggests that the procurement team should: first, determine the course of action for a medium-term period; second, match internal spends requirements with external marketplaces; third, make sure the strategy supports the overall purchasing objectives. These were the challenges provided by the respondents:

- Need for formal contracting and commitments to suppliers
- Benchmarking process intimidating
- Trust issues abound
- Short-term leverage view
- Separate, uncoordinated approaches
- Co-ordination and communication may be slow and difficult
- Lack of system commitment
- Transportation

These challenges and many more are impediment to the centralized procurement system of PPS. There is the need for the company to have formal contract and commitments with their suppliers so as to have good relationship with them and also help to avoid delay in supply. Having cordial relationship with suppliers will help curb the problems of benchmarking process intimidation.

Things that have low supply risk, yet account for a high portion of purchase volume and spend, and are important to the business, classify as a leverage commodity (Handfield *et al.*, 2011). Because of the low risk impart from the marketplace high potential for savings exist for commodities within this classification.

4.3 How to improve the Procurement System of PPS

According to the respondents, the following can help improve customer satisfaction:

- By empowering the branches to perform procurement functions
- Suppliers should extend their credit limits to PPS

4.4 Analysis of Procurement Manager's response

The views of the procurement manager of PPS was collected to help assess the centralized procurement system of the company and also to find out some of the challenges facing the unit.

4.4.1 Centralized Procurement System of PPS

The centralized procurement system has a lot of benefits such reducing the workload for accounts payables, providing a better negotiation position regarding prices, quality, compliance, and strategy with suppliers (van Weele, 2010) and many more. According to the procurement manager, some of the benefits of centralized procurement at PPS are:

- Better bargaining power
- Good relationships are developed with suppliers and create opportunities for future business
- Less people are held responsible for an order payment error.

According to him all these benefit are very much relevant in the current economic situations in the country.

Dynamism in the way centralized procurement system is operated need to be managed well so as to maximize the benefits of centralized procurement system. In view of this the procurement manager was asked to indicate whether there had been any structural transformation in the procurement system of the company. The manager said no. This means there has not been any structural transformation in the procurement system of the company.

As was stated by the workers, the procurement manager affirms that PPPS has a procurement team to manage the procurements of the company. According to him the team is made up of the procurement manager, material manager, sales administrator and warehouse and distributions manager. This shows that the team is made of the supply chain departments as enumerated by the workers.

The analysis shows that there are some impediments against the work of the procurement team. Some of them as enumerate by the procurement manager are:

- Delays in the approval of stock arises
- Delays in payment of suppliers

However, from the procurement manager, the company has excellent relationship with its suppliers. To him, this has helped the company to respond to requisition needs of its branches. It has also enhanced timely delivery of requisitions to its customers. According to him, customer satisfaction is one of their greatest achievements. This also cumulates what the workers said that the company has cordial relationship with its suppliers.

When asked how the procurement system of the company can be improved to improve customer satisfaction, the manager said that the company has to assist its

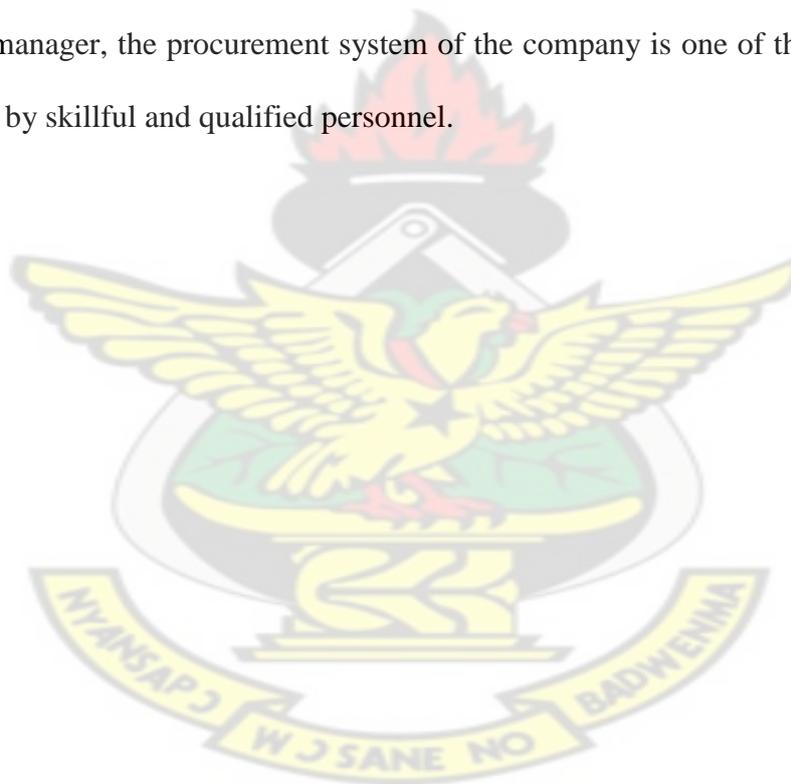
customer in planning ahead their purchases. This to him will eliminate the down times that occurs sometimes.

4.4.2 Challenges facing PPS procurement system

From the procurement manager, there are some risks that are not within the control of the company. Such risks as mentioned by the manager are:

- Environmental challenges
- Transportation
- Need for formal contracting and commitments to suppliers

To the manager, the procurement system of the company is one of the best since it is handled by skillful and qualified personnel.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter highlights the major findings of the study. The findings are outlined in direct response to the specific objectives. Recommendations have been provided to improve the performance of centralized procurement operations of organizations.

5.1 Summary of the findings

The following subsection therefore examines how each of the objectives was accomplished in order to achieve the overall aim of the study. In order to arrive at valid conclusions for the study, it is important that, a detailed evaluation, measurement and comparison of the results obtained from the study are done against the objectives that were set. The aim of the study was to examine centralized procurement system on the service organizations such as Process and Plant Sales Limited of Ghana. The following objectives were set out as stated in chapter one of the study;

1. To evaluate the centralized procurement system of PPS.
2. To find out the challenges facing the centralized procurement system of PPS and its effect on the main activities of the company.
3. To suggest recommendations if necessary for improvement.

5.1.1 First objective: To evaluate the centralized procurement system of PPS

To evaluate the centralized procurement system of PPS, these areas of procurement were considered: building a team, quality of people involved in procurement, customer relationship, suppliers relationship and the centralized unit relations with the branches. It was identified that the PPS has very efficient team for efficient and

effective sourcing. The procurement team of PPS consists of all the supply chain departments such as the sales administrative unit, the centralized procurement unit, material department and warehouse and distribution department. The managers of these departments of the company constitute the procurement team.

It was also identified that skills have a direct impact on the ability of procurement professional to fulfill their role proficiently. The personnel involve in procurement were asserted to be professionals. The procurement manager of PPS was identified to possess all the following skills which help to improve procurement processes:

- Technical knowledge: Using new technology for effective procurement decision-making
- Basic administrative skills: Undertaking negotiations and discussions
- Advanced procurement process skills: Essential skills for creating value and strategic decision making

This implies that the relationship between PPS and its customers is cordial

The study established that PPS has excellent customer relations and it is due to improve centralized procurement system of the company. Customers' requisitions are timely delivered so as to avoid delays which can impede the sales of the customers.

The study identified that suppliers are selected through: sole sourcing; procurement team; and procurement team with recommendation from management. It was also identified to some extent monitoring and evaluation of suppliers is done for value for money. There is a cordial relationship between the company and its suppliers.

The study identified the following as some of the benefits of the centralized procurement of PPS are:

- lowering the amount of invoices due to the consolidated purchasing spend
- Managing relationships with critical suppliers

- Implementing company-wide best practices

5.1.2 Second objective: To find out the challenges facing the centralized procurement system of PPS and its effect on the main activities of the company

The second objective of the study was to identify the challenges facing the centralized procurement of PPS. Some of the challenges enumerated were:

- Need for formal contracting and commitments to suppliers
- Benchmarking process intimidating
- Trust issues abound
- Short-term leverage view
- Separate, uncoordinated approaches
- Co-ordination and communication may be slow and difficult
- Lack of system commitment
- Transportation
- Environmental challenges

5.2 Conclusion

Based on the discussion above, the following conclusions were reached:

1. The centralized procurement unit of PPS is very effective and efficient and it has very competent and professional personnel in charge.
2. Some of the challenges facing PPS are:
 - Need for formal contracting and commitments to suppliers
 - Benchmarking process intimidating
 - Trust issues abound
 - Short-term leverage view
 - Separate, uncoordinated approaches

- Co-ordination and communication may be slow and difficult
- Transportation
- Environmental challenges

5.3 Recommendations

In light of the discussions, findings and the conclusions, the following recommendations are hereby coined;

- Procurement entities must ensure that appropriate candidates are employed on the basis of merit and placed in their relevant qualifications, skills, and experience with their roles and responsibilities clearly defined to avoid role conflicts with other professions and departments. Strategies must also be put in place to retain them. Procurement cannot be perceived as a mere ‘clerical routine,’ activity. For an entity to derive the full benefit of the procurement reform, procurement function must be placed in strategic management level.
- Practicing procurement officers, without procurement qualifications, can be sponsored to pursue medium/long term courses in procurement in a formal educational system to develop a career and enhance their expertise.
- The study identified delay in the approval of stock arises as impediment in procurement at PPS. It can affect the company returns and drive customers away. It is recommended that approval of stock arising should be given on time to avoid delays.
- The study also identified delays in payment of suppliers as impediment against the function of the procurement team. This has potential of delaying supplies, hence potential of causing customer dissatisfaction. It is recommended that management of PPS should avoid the delay of payment to suppliers.

- Contract Management was a major challenge for PPS. Lack of proper contract management is partly the result of escalation of high project costs. PPS must develop Contract Management Manual, buyer-supplier relationship Management and record Keeping Manuals and train workers on them. These manuals can help procurement practitioners with their daily contract and relationship management and record keeping of procurement activities.
- PPS procurement unit and its workers were employed in this study. It is therefore recommended that other service organizations should be used to assess the operations of centralized procurement system.
- Further studies are recommended in the area of negotiation and sourcing by the centralized procurement unit of PPS. As this is the core function of the procurement system of the company. This will help to assess the impact of the centralized procurement on the company.



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APPENDICES

Appendix A: Questionnaire for PPS workers

KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

QUESTIONNAIRE FOR PPS WORKERS

Topic: Assessing the Operations of Centralized Procurement System: The Case of Process and Plant Sales Ghana Limited

BY
Baidoo Moses

I would be much honoured if you give me some few minutes to enable me ask you some few questions that would assist me to assess the centralized procurement of PPS. It is purely academic exercise. Your candid response shall be deemed very confidential and useful for this study. Please, kindly tick where necessary. Thank you.

Building the team

1. Does PPS have an effective team for efficient and effective sourcing?
 - a) Yes []
 - b) No []
2. If yes in (1) who are involved in this team? List them
.....
.....
.....
3. If no in (1), then who is responsible for procurement at PPS?
.....
4. How effective is the procurement system of PPS?
 - a) Very effective []
 - b) Effective []
 - c) Unknown []
 - d) Not effective []
 - e) Not effective at all []

Relationship between PPS and its customers

5. Is PPS able to meet the request of its customers?
 - a) Yes []
 - b) No []
6. If no in (5), how does PPS communicate their inability to meet the request of their customers? *Tick as many as applicable*
 - a) Through formal meeting with their customers
 - b) Through phone calls or e-mail messages
 - c) Through massagers

- d) Customers find out themselves
- e) No communication at all
- 7. The relationship between PPS and its customers is cordial.
 - a) Strongly disagree
 - b) Disagree
 - c) Unknown
 - d) Agree
 - e) Strongly agree
- 8. The procurement system of PPS has greater impact on its ability to serve its customers.
 - a) Strongly disagree
 - b) Disagree
 - c) Unknown
 - d) Agree
 - e) Strongly agree

Quality of people involved in procurement

- 9. Skills have a direct impact on the ability of procurement professionals to fulfill their role proficiently.
 - a) Strongly disagree
 - b) Disagree
 - c) Unknown
 - d) Agree
 - e) Strongly agree
- 10. Do the procurement professionals of PPS have:
 - i. *Technical knowledge*: Using new technology for effective procurement decision-making
 - a) Yes []
 - b) No []
 - ii. *Basic administrative skills*: Undertaking negotiations and discussions
 - a) Yes []
 - b) No []
 - iii. *Advanced procurement process skills*: Essential skills for creating value and strategic decision making
 - a) Yes []
 - b) No []

Suppliers Relationship

- 11. Does the selection of suppliers follow the PPS lay down rules of procurement?
 - a) Yes []
 - b) No []
- 12. How does PPS select its suppliers? **Tick as many as applicable**
 - a) Through sole sourcing []
 - b) Through the recommendation of procurement manager []
 - c) Through procurement team []
 - d) Through procurement team with recommendation from management []
 - e) The use of the public procurement Act []
 - f) Others, specify

13. Base on the procurement system of PPS are the suppliers able the meet their the company's time line?
- a) Yes []
- b) No []
14. Does the company monitor and evaluation its suppliers for value for money?
- a) Yes []
- b) No []
15. If yes in (14), how are they monitored and evaluated? **Tick as applicable**
- a) By management []
- b) Through the procurement team, if any []
- c) Through the procurement manager []
- d) Through a lay down procedure coordinated by procurement manager []
- e) Others, specify
16. What is the relationship with the suppliers like at PPS?
- a) Not cordial at all []
- b) Not cordial []
- c) Somehow cordial []
- d) Cordial []
- e) Very cordial []

PPS and its breaches

17. Who takes decision to supply or not to supply the request of the breaches?
- a) The breach manager []
- b) Procurement team of the breaches []
- c) Centralized procurement team []
- d) Management at the headquarters []
- e) Others, specify
18. Are the breaches able to supply the customers without any delay?
- a) Yes []
- b) No []
19. The procurement system of PPS is very effective and it helps the breaches to meet the supply of its customers.
- a) Strongly disagree
- b) Disagree
- c) Unknown
- d) Agree
- e) Strongly agree
20. What are some of the positives of centralized procurement as practice by PPS?
- Tick as applicable**
- A. Managing relationships with critical suppliers []
- B. Developing electronic procurement systems []
- C. Implementing company-wide best practices []
- D. lowering the amount of invoices due to the consolidated purchasing spend []
- E. Others, specify
-
-
- ...
-

21. What are some of the challenges facing the centralized procurement system of PPS?

.....
.....
.....
.....

22. How can the procurement system of PPS be improved to improve customer satisfaction?

.....
.....
.....

KNUST



Appendix B: Questionnaire for the Procurement Manager of PPS

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

QUESTIONNAIRE FOR THE PROCUREMENT MANAGER OF PPS

Topic: Assessing the Operations of Centralized Procurement System: The Case of Process and Plant Sales Ghana Limited

BY

Baidoo Moses

I would be much honoured if you give me some few minutes to enable me ask you some few questions that would assist me to assess the centralized procurement of PPS. It is purely academic exercise. Your candid response shall be deemed very confidential and useful for this study. Please, kindly tick where necessary. Thank you.

1. What are some of the benefits of centralized procurement?
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2. Are some of these benefits still relevant in this current economic environment?
 - a) Yes
 - b) No
3. If no (2), what are some of them?
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4. Has there been any structural transformation in the procurement system of the company?
 - a) Yes
 - b) No
5. If your answer in 4 is yes, what are some of the transformations
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6. Have these transformations in 5 help to improved procurement in the company?
 - a) Yes
 - b) No
7. If your answer in 5 is no, why?

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8. Do you have qualified team to implement the centralized procurement system?
a) Yes []
b) No []

9. Who are those involved in the team?
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10. Is there any impediment that prevents the procurement team to discharge their duties?
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11. How do you assess the company in terms of suppliers' relationship?
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12. With the kind of procurement system you operate, are you able to meet your customers request?
a) Yes []
b) No []

13. How can the procurement system of PPS be improved to improve customer satisfaction?
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14. What are some of the challenges facing the procurement system of PPS?
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