CRITICAL SUCCESS FACTORS FOR OUTSOURCED DISTRIBUTION SERVICES AND THE PERFORMANCE OF NATIONAL MEDICAL STORES, UGANDA

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A DISSERTATION SUBMITTED TO THE SCHOOL OF MANAGEMENT SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE MASTERS DEGREE IN MANAGEMENT STUDIES (BUSINESS ADMINISTRATION) OF UGANDA MANAGEMENT INSTITUTE

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DECLARATION

I Norbert Kazibwe, registration number 12/MMSBA/27/08 do hereby declare that this Dissertation entitled "**The Critical success factors for Outsourced Distribution Services and the Performance of National Medical Stores Uganda"** is my very own composition and has never been presented anywhere else for any academic award at any other university or institution. All other sources of information have been cited and authors acknowledged. I hereby submit it to Uganda Management Institute for the award of a Master's Degree in Management Studies (Business Administration).

Signed:…….. Date……

APPROVAL

We certify that this research by Norbert Kazibwe, entitled "**The Critical success factors for Outsourced Distribution Services and the Performance of National Medical Stores Uganda"** has been done under our supervision and is now ready for submission.

DR. GERALD KARYEIJA

Sign…….

Uganda Management Institute Supervisor

Date…….

MS. PROSS OLUKA NAGITTA

Sign…….

Uganda Management Institute Supervisor

Date…….

DEDICATION

I dedicate this work to my beloved parents Mr & Mrs Munaawa who inculcated in me values that have led me to success, My Wife Joanne Mbuga Kazibwe, My Children Harvey, Elijah and Hannah Kazibwe.

ACKNOWLDEMENT

I thank the almighty God for it was by his sufficient Grace that I have come this far. I extend my sincere appreciation to my special supervisors: First; Dr. Gerald Karyeija who didn't stop at being a supervisor but went ahead and became a parent, counselor, friend and inspiration to me.

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LIST OF ACRONYMS

CEO: Chief Executive Officer

CIO: Chief Information Officer

CSFs: Critical Success Factors

CVI: Content Validity Indicator

HR: Human resource

IT: Information Technology

LMD: Last Mile Delivery

NMS: National Medical Stores

NDA: National Drug Authority

SME: Small medium Enterprise

SPSS: Statistical Package for the Social Sciences

TCE: Transaction Cost Economics

ABSTRACT

This study examined the Critical success factors for outsourced distribution and performance of National Medical Stores (NMS) in Uganda. The independent variable was critical success factors while the dependent variable was performance of NMS. The objectives that guided the study were: To determine the compliance of outsourced distributors on performance of NMS; to determine the internal infrastructure on performance of NMS; and to establish whether organizational culture of outsourced distributors is critical to the performance of NMS. The adopted a descriptive and analytical design, which involved the collection of data from NMS staff and outsourced distributors' staff, using both qualitative and quantitative approaches. Data were collected using questionnaires and an interview guide. The key findings showed that compliance of outsourced distributors, the infrastructure of outsourced distributors, and the organizational culture of outsourced distributors positively and significantly contributed to the performance of NMS, with organizational culture registering the strongest correlation. The policy implication of this is that NMS should always do background checks on organization culture of outsourced distribution services. In addition, compliance is found to have a strong correlation with performance. This calls for monitoring of compliance to set guidelines for outsourced distributors during their contract period. To increase compliance, NMS should therefore frequently engage Information Communication Technology (ICT) Consultants with clearly defined terms of reference (TOR) notable among of which should be: to systematically examine the loopholes in their technological components; map out the implications and lessons

for their communication activities and design. NMS management should frequently engage with management system consultants, staff and set clearly defined terms of reference (ToRs) on improvement of internal infrastructure.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Today, many entities both public and private are outsourcing their non- core activities to an third party providers. Indeed distribution is one of these activities as it is considered as a non-core activity for many firms. Although, there are many advantages for outsourcing, there are also risks and disadvantage in this process. This study investigated the Critical success factors for outsourced distribution services and the performance of National Medical Stores (NMS) in Uganda. Outsourced distribution service was conceived as the independent variable, with organization performance as the dependent variable. Outsourced distribution services were measured with regard to their compliance with the distribution procedure, internal infrastructure, and organization culture while performance was measured in terms of efficiency, adequacy, and accessibility of the drugs and medical supplies after delivery.

This chapter dealt with the background of the study, the problem statement, general objectives, specific objectives, research questions, hypothesis, and scope of the study, significance of the study, justification of the study, operational definitions of terms and the concepts.

1.2 Background to the study

Today's business success depends to a great extent on logistics and supply chain performance. The role of out sourced distribution has never been as critical as it is today (Sangam, 2008). Outsourcing serves as a source of competitive advantage (Ireland and Webb, 2007) and hence improves performance of organizations generally.

Indeed in an increasingly global marketplace, the decision to outsource services has become a strategic choice for many organisations. While this has merit, multi-sourcing does add significantly to the complexity of strategies organizations may have put in place. These complexities may arise simply from challenges of managing multiple vendor relationships, but often from the need for risk mitigation required as vendor responsibilities and scope boundaries overlap, and mind you scopes boundaries always overlap, however minimally (WhiteBox Business Solutions, 2012).

It is argued that successful outsourcing should no longer be a transactional relationship between buyer and supplier but one that requires integration, cooperation and collaboration (Soosay and Hyland, 2004)as a productive way to deliver higher value beyond simple cost savings (Langley. et al., 2007). Both service provider and receiver face an increasing pressure to exhibit the value of outsourcing. Investment in win-win processes and shift from the more traditional business models to collaborative, long term, sustainable supply chain business models are the best way to meet this challenge. To gain the full benefits of collaboration companies might need to develop a collaborative culture beyond their current organizational boundaries and be willing to invest in technology, integrate business processes, share information, accept accountabilities and, at the same time, give control to stakeholders and ensure compliance with policies and regulations (Langley. et al., ibid).

Since the 1980's, there was increased globalization and an increased use of of outsourcing of services in terms of third party logistics, catering, cleaning and information technology (IT). These trends resulted in increased demand on firms and possibilities for companies to operate

more competitive and lean in an effort to be improve performance in terms of costs, timeliness and reliability. This led to the successful emergence of 3PL such as; DHL/Exel, Kuehne & Nagel, UPS among others (Khai, 2008). In addition, the Logistics provider industry is evolving quickly, driven by customers' increasing and diverging demands, growth in global trade, continued outsourcing, technology and further industry consolidation (Butner and Moore, 2006). Also driving this expansion is the recognition of the supply chain as a driver of enterprise-wide performance improvements and greater competitive advantage. From this background, it can be implied that the logistics evolution started as a result of increasing complexities which firms could not manage effectively on their own. Further, the emergence of breakthrough information technology (IT) tools creates the real possibility for a fully optimized logistics function, thus the birth of 3PLs and later on 4PLs that went beyond the traditional 3PLs of transportation companies by providing inventory and vendor management, IT solutions and a lot more.

Christopher (2005) contends that third Party Logistics services providers (3PLs) are companies who provide a range of logistics services to their clients. Their activities include operating distribution centers, managing delivery of products through their transport fleet or value-adding services like re-packing. Chopra and Meindl, (2007) further add that a 3PL provides one or more of the logistics activities relating to the flow of products, information and funds that could be performed by the firm itself.

1.2.1 Historical Background

One of the crucial dilemmas facing many companies today is to make a choice on whether to operate their own in-house services systems or whether to contract out the operations to specialist third party contractors or providers. In an attempt to enhance their competitiveness,

organisations are increasingly turning to outsourcing. The outsourcing Institute (2000) reports that outsourcing has become a standard business practice across small and large companies in almost every industry. Firms such as IBM that would make computers and build their own memory, processor chips, or hard disks have long outsourced the manufacture of many of these elements of their supply chain. Similarly national medical stores in Africa have outsourced locally, nationally and recently globally the drugs supply and delivery. Though formally introduced as a business strategy in 1989, this practice's origins began in the aftermath of World War II. Outsourcing was born from the ashes of War and nourished by Industry (Barthélemy and Geyer, 2005).

Before World War II (1939-1945), most nations were largely self-sufficient, producing the great majority of what their populace consumed: food and apparel, minerals and machines. Trade occurred between nations where some items, such as coffee, spices, mineral ore, and luxury items, such as jewelry and perfume, were imported and exported. The business model at the time were large integrated companies that "owned, managed, and directly controlled" assets. These companies did not engage in outsourcing because international trade and global communications were not nearly as developed as these are now.

After World War II, there was an expansion in global trade propelled by the combine engines of American business and government, both sought to increase imports to war ruined Europe and Asia for those regions' respective economic recovery. Things took a turn in the 1950s and 1960s when the rallying cry was change! Business firms applied this through diversification, spreading corporate bases, taking advantage of economies of scale such as Japan which started supplying large quantities of textiles to the United States (Click and Duening 2005). Companies then

attempted to compete globally in the 1970s and 1980s by contracting out to more producers in Asia to furnish apparel and garments, which previously had been manufactured in the United States. It was the low cost of labor in Asia that served as the main attraction. In time, overseas manufacturers became more technologically-sophisticated and American companies began outsourcing other products, such as electronics and automobiles (Brandes *et al*., 1997). During the 1990s, outsourcing expanded as companies aimed at lowering their costs to keep up with the competition. These companies started to outsource those functions necessary to run a company, but not related specifically to the core business, to emerging service companies to deliver accounting, human resources, data processing, and security.

Today in Africa, business process outsourcing puts more focus on developing strategic partnerships to achieve improved results. Selecting outsourcing as a strategy is based more on who can deliver more effective results for a specific function, than on whether the function is core or commodity (Barthélemy, 2003). Previously, companies were reluctant to hand over core processes defined as anything that has to do with dealing with customers. As service companies strived to be more proficient; these core competencies, such as customer service, were also outsourced precisely because it is so important (Barthélemy, 2003).

Outsourcing in East Africa has become the current trend in how the companies in the nations of the world do business and modern economists declare that it's irreversible. It is hoped that since its principles began after an age of conflict, outsourcing could very well be the agent for interdependency and cooperation and mutual prosperity between peoples (Barthélemy, 2003). The operational structure of many companies in the face of globalization demonstrates that long-

term cooperation agreements between buyers and sellers are increasingly common. These benefits have inspired production companies to go for outsourced distribution.

These firms typically provide some of the following services: warehousing operations, freight payments, carrier selection and rate negotiation. In addition, outsourced distribution services firms may develop information systems and manage inventory and customer order fulfillment (Golop and Reagan, 2001; Boyson *et al*., 1999). Several recent studies have addressed the issue of growth in the outsourced distribution. A study by Murphy and Poist (1998) provides a review and synthesis of research on this topic. Their study suggests that while current use is fairly low, the majority of users of outsourced distribution services will increase in the near future.

Traditionally, outsourced distribution services are provided by the organization of the shipper (Lieb and Randall, 1996). The next step in the evolution is that freight transport and forwarding firms, which handle logistics operations on behalf and on credit of the shipper, can be called on as the 3PL providers of the first generation (Berglund *et al.*, 1999).

Recent decades have seen tremendous growth in the logistics and distribution management facets. Creating excellence and value through logistics and distributions management a strategic issue for most companies as it provides potential for competitive advantage. The emergence of 'Third Party Logistics Providers (3PLs)' as well as 'Fourth Party Logistics Providers (4PLs)' has such sought strategies easily attainable in the real business world today. There is need to appreciate the contribution of such companies in the area of logistics management (Khai, 2008)

There is overwhelming evidence to show that distribution outsourcing is on the increase over the last decade despite various difficulties (Andersen, 1996; Harkins, Brown and Sullivan, 1995). A

survey conducted by the bureau of National affairs in 2004 (in Lilly, Gray and Virick, 2005), for instance, found 67% of the respondents outsourced one or more Distribution functions. Another survey, called "The Cranet Survey," (in Cooke et al., 2005) found a 97% use of external providers for at least one distribution function.

A study by Lever (1997) indicated that 75% and 65% of the organizations surveyed outsourced benefits administration and training respectively. Payroll at 62% was the next popular function to be outsourced, followed by recruitment at 50%. Other outsourced functions comprised of distribution information systems (30%) and compensation (17%). None of the respondents outsourced strategic distribution functions. A survey by Smith et al. (2006) showed that 68% of the organizations outsourced recruitment, 61% human resource information, 56% training and 49% benefits administration.

Size of an organization is a factor that can influence the decision to embark on Distribution outsourcing (Arbaugh, 2003). Several researchers have argued that smaller organizations in particular have a greater need of external expertise due to their limited scale (e.g. Gilley et al., 2004; Klaas, 2003). Indeed, small organizations often lack the required economies of scale to build an effective Distribution system using internal resources (Heneman, Tansky and Camp, 2000). Unlike larger organizations which can afford to design and implement sophisticated Distribution functions in house, smaller organizations with meager resources will incur prohibitive costs if they do so (Robinson, 1982). Hence, it is argued that small organizations will outsource their Distribution functions in order to procure the required expertise. Even so, outsourcing is also common in larger organizations that want to reduce organizational costs

within functional activities (Bettis et al., 1992). In fact, some researchers showed that larger organizations outsource more than smaller ones (Klaas et al., 2001; Delmotte and Sels, 2008). Small businesses are inherently flexible and nimble; they are specialists in what they do and they do it with great passion. When they outsource their activities, they are more driven by lack of access to the types of know-how, technologies, capital, economies of scale and other resources that the bigger organizations enjoy. The power of outsourcing for them is not so much in redefining and reorganizing operations for speed and efficiency as it is in enabling them to gain increased leverage for what they are already good at (Corbett, 2001). The reverse, however, is true of big businesses as a result; large organizations increasingly outsource their distribution functions to external organizations.

In recent years business has been fundamentally reshaped by an increasing reliance on knowledge as a critical economic input (Grant 1996; Itami 1997; Kogut & Zander 1992). Even as knowledge-based business activities have become an increasingly important component of firm performance, a number of these activities are being outsourced to external suppliers. A large and burgeoning market for knowledge work in fields like information technology, product design, and research has added to already well established fields like law, consulting, and advertising. Most companies simultaneously undertake such knowledge work internally as well as outsource work to external suppliers. However, there is little understanding of what drives these decisions, especially in terms of the knowledge-based capabilities needed to perform the activities.

The knowledge-based view (KBV) of the firm (Kogut & Zander, 1992, 1994; Nickerson & Zenger, 2004) has developed to explain how the challenges around coordinating knowledge help explain firm boundaries. The key insight of the KBV is that advantages in transferring

knowledge are the foundation of firms' complex routines, communication channels, and a sense of identity exists within firms, which facilitate the sharing of knowledge and are difficult to replicate across firm boundaries. While these insights have been useful, the focus has remained on the challenges of transferring or communicating knowledge as the main factor determining whether firms internalize or outsource knowledge-based activities. What has not been directly addressed in this literature is how the types of knowledge required and the firm's capabilities in them play a role in outsourcing decisions. Research adopting a capabilities perspective emphasizes that outsourcing is primarily motivated by the existence of superior knowledge capabilities among supplies relative to the capabilities within the firm (Argyres 1996; Schilling & Steensma 2001; Madhok 1996; 2002; Hoetker 2005; Jacobides & Hitt 2005; Jacobides & Winter 2005). However, when capability perspectives are used, the origins of knowledge capability differences between firms and suppliers are often treated as a black-box (e.g. Mayer & Solomon 2006) or as an outcome of serendipitous prior experience (e.g. Argyres 1996; Leiblien & Miller 2003). In a recent theory paper, Argyres and Zenger (2008) propose that capability differences between firms may result from prior governance choices. Excessive outsourcing can ―hollow out a firm or build up a dependence on a particular supplier (Langlois 1992; Ring and Van de Ven 1994; Gulati 1995; Langlois and Robertson 1995) while excessive integration can hurt a firm's competitive position if superior knowledge (and associated capabilities) exists in the market. These ideas provide an initial understanding of the dynamic forces shaping the development of outsoucing services although fail to identify the critical success factors and their implications for outsourcing decisions which need to be more fully explored. Particularly absent from the extant literature is a clear articulation of how different types of knowledge influence firm capabilities and thus shape outsourcing decisions over time.

1.2.2 Theoretical Background

Ronald Coase's theory (Coase, 1937) has been the most utilized theory of outsourcing. This theory is perceived to provide the best decision making tools to help organizations decide to outsource and to prepare themselves for forthcoming outsourcing arrangements. The governance features of the theory influenced that it has been applied in studying the managing relationship phase, whilst the concept of switching costs made the theory applicable in the reconsideration phase (McIvor, 2005). Another useful issue for outsourcing provided by this theory is in the explanation of contractual compliance complexity. Contractual compliance is to ensure that contracted parties fulfill the requirements set forth in their agreements and policies to achieve their goals. The parties have to demonstrate the openness and transparency of operations, provide fair and equitable treatment to all business partners, establish clear and easy-to-use channels for communication on compliance matter, supplement staff knowledge and enable greater responsiveness to changes in the environment; provide clear and regular communications to the community regarding contractual compliance activities, accomplishments and ongoing work.

Kernel theory, (2004) defines an information infrastructure as a shared, evolving, heterogeneous installed base of IT capabilities based on open and standardized interfaces. Such information infrastructures, when appropriated by a community of users offer a shared resource for delivering and using information services in a (set of) community. Information infrastructures include complex socio-technical ensembles like the Internet or Electronic Data Interchange (EDI) networks. Increased integration of enterprise systems like Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM) systems has produced similar features for intra

organizational systems, which evolve over long periods of time while they adapt to needs unknown during design time. New infrastructures are designed as extensions to or improvements of existing ones in contrast to green field design. The installed base of the existing infrastructure and its scope and complexity influence how the new infrastructure can be designed. Infrastructure design needs to focus on installed base growth and infrastructure flexibility as to avoid technological traps.

Today, infrastructure systems are growing even more interdependent through information and sensing technologies being introduced for the monitoring and control of infrastructure systems. As new environments grow to keep pace with trends in population densification, a balance must be struck between community resiliency and sustainable use of natural resources. This is fundamentally a systems problem defined by the flow of the natural resources that go into the construction and operation of infrastructure system and the negative consequences (e.g., greenhouse gases) that result over the full life-cycle of infrastructure systems. This program area emphasizes the analysis, design, and optimization of infrastructures, using the concepts from systems theory, information theory, decision theory, and sustainable design. The program also focuses on the enhancement of resilience and sustainability of infrastructure systems via integration of nontraditional technologies, such as embedded sensing, intelligent control, and advanced materials technologies.

Physical systems are a new class of sensor-rich engineered systems that entail not only sensors but computing and actuation, cohesively integrated for monitoring and control applications. The Infrastructure Systems group is advancing cyber-physical system science with the aim of

embedding sensing, computing and actuation technologies in the civil infrastructure domain including in instrumented infrastructure, intelligent vehicle systems, monitoring and control of regional power and water distribution systems, among many more.

In the human relations theory (Maslow, 1954; Mayo, 1933; Child, 1967), the reduction of organizational tension is held to rest on the ability of individuals to achieve self-fulfillment in the workplace. Workers are regarded as qualitatively different to other resources used in production. Thus, if workers are denied autonomy on the job, or are reduced to acting as mere extensions of the machinery they operate, or are given work that inhibits their capacity to create and think, it is argued that they will invariably find ways to subvert the methods of control that enforce these conditions. The principal task for management on this conception is to manipulate workplace relations in ways that enable employees to feel personal satisfaction with being involved with the organization.

However, according to Stone, (1995; Blyton & Turnbull (1992); Guest(1989) management practice originates from the belief that organizational tensions can be completely resolved by nurturing a psychological contract based on cooperation. The human relations' choices in this instance are predicated on the belief that the forces uniting managers and employees are far stronger than the forces dividing them. It is the task of management to facilitate these unifying forces by establishing workplace conditions that encourage autonomous individuals, whether employees or management, to work collaboratively for the common good. Companies taking this approach are expected to regard workplace relations holistically, whereby collaboration between management and employees is encouraged through the development of a unifying culture, strong

and pervasive leadership, and a clear vision of organizational goals. The human relations aim of these techniques is to resolve internal tensions by breaking down workplace social classes, developing open lines of communication lines with the different stake-holders, and promoting a collective understanding that the interests of all are better served by working together and avoiding conflict. In addition, the extant studies often reduce organisation culture to a single dimension whilst the existing frameworks are helpful for a general understanding of the multidimensions nature of organsiation al culture as an important tool in boosting organisational performance.

Organizational Culture Theory "has become a major theoretical rallying point" (Mumby, 1988, p. 4). Pacanowsky and O'Donnell-Trujillo, (1989) were instrumental in directing researchers' attention toward an expansive understanding of organizations. The principles of the theory emphasize that organizational life is complex and that researchers must take into consideration not only the members of the organization but their behaviors, activities, and stories.

The appeal of Organizational Culture Theory has been far and wide, resulting in a heuristic theory. For instance, it has framed research examining Muslim employees (Alkhazraji, 1997), law enforcement officers (Frewin & Tuffin, 1998), and pregnant employees (Halpert & Burg, 1997). The approach is useful because much of the information from the theory (e.g., symbols, stories, rituals) has direct relevance to many different types of organizations and their employees. Because the theorists' work is based on real organizations with real employees, the researchers have made the theory more useful and practical.

Finally, the logical consistency of the model should not go unnoticed. Recall that logical consistency refers to the notion that theories should follow a logical arrangement and remain consistent. From the outset, Pacanowsky and O'Donnell-Trujillo (1989) did not stray from their belief that the organization's culture is rich and diverse; listening to the communicative performances of organizational members is where we must begin in understanding corporate culture. This is the basis from which much of the theory gained momentum.

The appeal of the theory is tempered by its criticisms. First, Eisenberg and Goodall (1993) observe that Organizational Culture Theory relies heavily on the shared meaning among organizational members. They comment that "most cultures show considerably more alignment in practice than they do in the attitudes, opinions, or beliefs of individual members" (p. 152). Second, Organizational Culture Theory suffers from expansive boundaries. For instance, cultural performances constitute a critical part of an organization's culture, and when you consider that performances may address almost any topic, the vastness (and potential vagueness) of the theory becomes apparent.

Finally, Organizational Culture Theory may view organizational life as too unique. Pacanowsky and O'Donnell-Trujillo (1989) argue that organizational cultures differ because the interactions within those cultures differ, so generalizing about life in organizations is nearly impossible. As Stephen (2002) argues, the theory presupposes that organizations must be studied independently, and in doing so, generalizing across organizations is difficult.

Pacanowsky (1989) responds to his critics by noting that the theory is more concerned with the unique values of an organization and not the "reproducibility of representation" (p. 253). In fact,

early writings by Pacanowsky and O'Donnell-Trujillo (1989) were clear in noting that although there may be shortcomings in the perspective, the authors believe that the time is ripe to forge a new path in asking questions about organizations. They recognize that critics may be quick to judge the feasibility and effectiveness of their approach; yet the theory's value outweighs the criticisms.

Organizational Culture Theory, articulated by Pacanowsky and O'Donnell-Trujillo (1989), further elicits opinion in the communication discipline. It is a way of "rethinking communication" (Dervin, Grossberg, O'Keefe, & Wartella, 1989), and its value will continue to be realized by scholars of all methodological stripes. Perhaps looking at organizational culture in this way will enable researchers to appreciate the importance of connecting with the people and their performances in an organization.

.Outsourcing can be a good thing for the economy but it can also be a bad thing. Companies today both large and small do not have the capacity or expertise to manufacture every component of an end product they are getting ready for sale. This is a good thing as this need creates the need for additional jobs provided the market is good for the product being manufactured and assembled. The key to outsourcing is choosing the resource that can provide the quality product or service in completing an end product.

1.2.3 Conceptual Background

Rockart (1979, p. 85) defines CSF as areas where business activity must go right and as key areas where favourable results are absolutely necessary if management goals are to be reached.

Specifying CSFs must receive constant and careful attention from management thus implying that knowledge about the CSF status must be made available in a timely fashion at the appropriate levels of management. Thierauf (1982) asserts that the results in the organization business activity will be adequate for the organization's efforts for the period realized. Kenney (1999) describes CSF as success to achieve organization business objectives which lead the organization to a superior position in the market. For the organization to realize a superior position in the market is conditioned on its strength, weakness, opportunity and threat (SWOT) analysis, the analysis considers business objectives vary from one company to another.

Outsourcing is an arrangement in which one company provides services for another company that could also be or usually have been provided in-house. Outsourcing is a trend that is becoming more common in information technology and other industries for services that have usually been regarded as intrinsic to managing a business. In some cases, the entire information management of a company is outsourced, including planning and business analysis as well as the installation, management, and servicing of the network and workstations. Outsourcing can range from the large contract in which a company like IBM manages IT services for a company like Xerox to the practice of hiring contractors and temporary office workers on an individual basis (Margaret, 2007).

Christopher (2005) contends that third Party Logistics services providers (3PLs) are companies who provide a range of logistics services to their clients. Their activities include operating distribution centers, managing delivery of products through their transport fleet or value-adding services like re-packing. Chopra and Meindl (2007) further add that a 3PL provides one or more

of the logistics activities relating to the flow of products, information and funds that could be performed by the firm itself.

Advancement in technology products today seems to be increasing more than ever before. Outsourcing amounts to companies using suppliers to provide the necessary expertise and/or product to be assembled into an end product. The supplier system around the world creates an environment where jobs may be sustained or increased dependent upon the demand for a product or service. How and where these jobs are located is what is creating concern over this concept.

1.2.4 Contextual Background

The NMS was established by the National Medical Stores Statute, which came into effect on December 03, 1993. The NMS replaced the Central Medical Stores (CMS), which was a department within the MoH. The main concern, then, was that the functionality of CMS was constrained by lack of autonomy. Second, the fusion of money and medicines in one institution – the MoH – was widely associated with inefficiency, lack of accountability and the absence of institutional checks on the flow of pharmaceuticals and medical supplies. As a major outcome, essential drugs/medical supplies were not reaching the people at the right time. Nor were they being delivered in the right quantities via a supply-driven approach.

To overcome the anomalies associated with the old supply-driven CMS regime, government created NMS in 1993. Through the NMS statute, the MoH delegated its drug supply function to NMS. Drug supply involves the identification of therapeutic needs, quantification of the current and future needs, procurement, distribution and use. Like CMS, the NMS operates under the national health policies defined by the line MoH. Unlike CMS, however, NMS works in the context of the national drug policy that is enforced by the NDA. The NMS is also different from

CMS in that it is an autonomous corporation created in the principal of demand (pull system) for medicines as opposed to the supply (push system) under the CMS regime.

In response to the Uganda government directive, in April 2011 NMS undertook a step to outsource its distribution services to specifically handle the distribution of drugs and other medical supplies from the district health offices up to the door steps of the lower health facilities. This was referred to as last mile delivery (LMD). Indeed; the procurement of all medicines is now being done by the National Medical Stores (NMS). They at the same time take the responsibility for delivering these drugs to the health centers across the country. It is therefore evident that the availability of medical supplies in all public health facilities depends entirely on the supply chain managed by NMS which includes transportation and distribution.

Committee of Parliament in their report of 2012, observed that despite the fact that NMS has enough stocks of medicines, supplies and commodities, cases of drug shortages and stock-outs were still being reported in health facilities. NMS and health units continue to accuse each other of various failures in the delivery chain.

NMS has made transportation to district headquarters easy. Every two months, it transports medicines – although with more than 80 districts now, this may also become a logistic challenge. Medicines reach health units through any of the following means: DHO transports to health facilities or health facilities go to pick the medicines. It could be by public means in situations where the facilities do not have transport of their own. This would not be a major challenge had the health facilities had sufficient funds to undertake this process. Of the 45 in-charges, 53.3 percent reported drug delivery by the office of the DHO, and for the rest delivery was done by the facility – using public means, private vehicle, motorcycles, bicycles or by foot. Although the

extent to which this contributes to stock outs of medicines could not be established, this arrangement raises matters of concern. It is reported in the above report regarding the delivery of medicines that of the 42 in-charges, 76.2 percent reported that it takes more than 30 days to receive their orders. In addition, orders are not fully honoured. This partly reflects poor procurement planning and inability by to forecast future demand by drug suppliers in particular in NMS.

1.3 Statement of the problem

National Medical Stores Mandate is to deliver medicines, supplies and medical equipment up to Referral hospital and District Health Offices. To this effect NMS has put in place TMS (Track Monitoring System) which has enabled the institution to monitor the outsourced distributors' activities remotely and in every place and area of locality.

The District health Office was then supposed to ensure that all these were transported to the various health centers under their supervision. The Office of the Auditor General (AG)'s Report to Parliament covering FY2006/2007 outlined several flaws in the distribution of medicines. It is reported that government allocated Shs19.6bn to National Medical Stores (NMS); but NMS delivered drugs and medical supplies worth Shs13bn, making a shortfall of Shs6.2bn (Monitor 16 January 2009, page 1).

By April 2009, NMS had supplied drugs and health supplies worth Ushs11.6bn, representing 85.8 percent of the total commitment funds. By implication, 14.2 percent of the committed funds were unspent in time as expected. The above distribution model to a large extent slowed down delivery of supplies to health units and accountability as below;

The delivery of medicines, supplies and equipment from the DHOs to the health centers took between 2 weeks to 3months to execute hence causing scarcity of medicines and supplies at the lower level health units. Delays of supplies at the district led to expiry of drugs meant for lower health units. The delay of order placement from health units to NMS was always a challenge and impacted on all distribution activities as it led to an artificial shortage of medicines in health centers and caused increased emergency orders and deliveries. This resulted in higher distribution and organizational costs. On that premise, in April 2011, NMS Management strategically commissioned the delivery of medical supplies from the district health stores to the lower public health facilities through outsourcing in what has been referred to as Last Mile Distribution (LMD). This was designed as an intervention that could enhance an efficient flow of drugs. On that background, this study sought to investigate the Critical success factors for outsourced distribution services in performance of National Medical Stores (NMS) in Uganda.

1.4 Purpose of the study

The purpose of this study was to examine the Critical success factors for outsourced distribution services on performance of National Medical Stores (NMS) in Uganda.

1.5 Objectives of the study

a) To determine the Critical success factors for compliance of outsourced distributors on performance of NMS.
b) To determine the Critical success factors for outsourced distributors' internal infrastructure on performance of NMS.

c) To establish how organizational culture of outsourced distributors contributes to the performance of NMS.

1.6 Research questions

The following research questions guided this study:-

a) How does the compliance of outsourced distributors contribute to the performance of NMS?
b) How does the infrastructure of outsourced distributors contribute to the performance of NMS?
c) How does the organizational culture of outsourced distributors contribute to the performance of NMS?

1.7 Research Hypotheses

a) Compliance of outsourced distributors positively contributes to the performance of NMS.
b) The infrastructure of outsourced distributors positively contributes to the performance of NMS.
c) The organizational culture of outsourced distributors positively contributes to the performance of NMS.

1.8 Conceptual Frame work

Conceptual frameworks (theoretical frameworks) are a type of intermediate theory that attempt to connect to all aspects of inquiry (such as .problem definition, purpose, literature review

methodology, data collection and analysis). Conceptual frameworks can act like maps that give coherence to empirical inquiry.

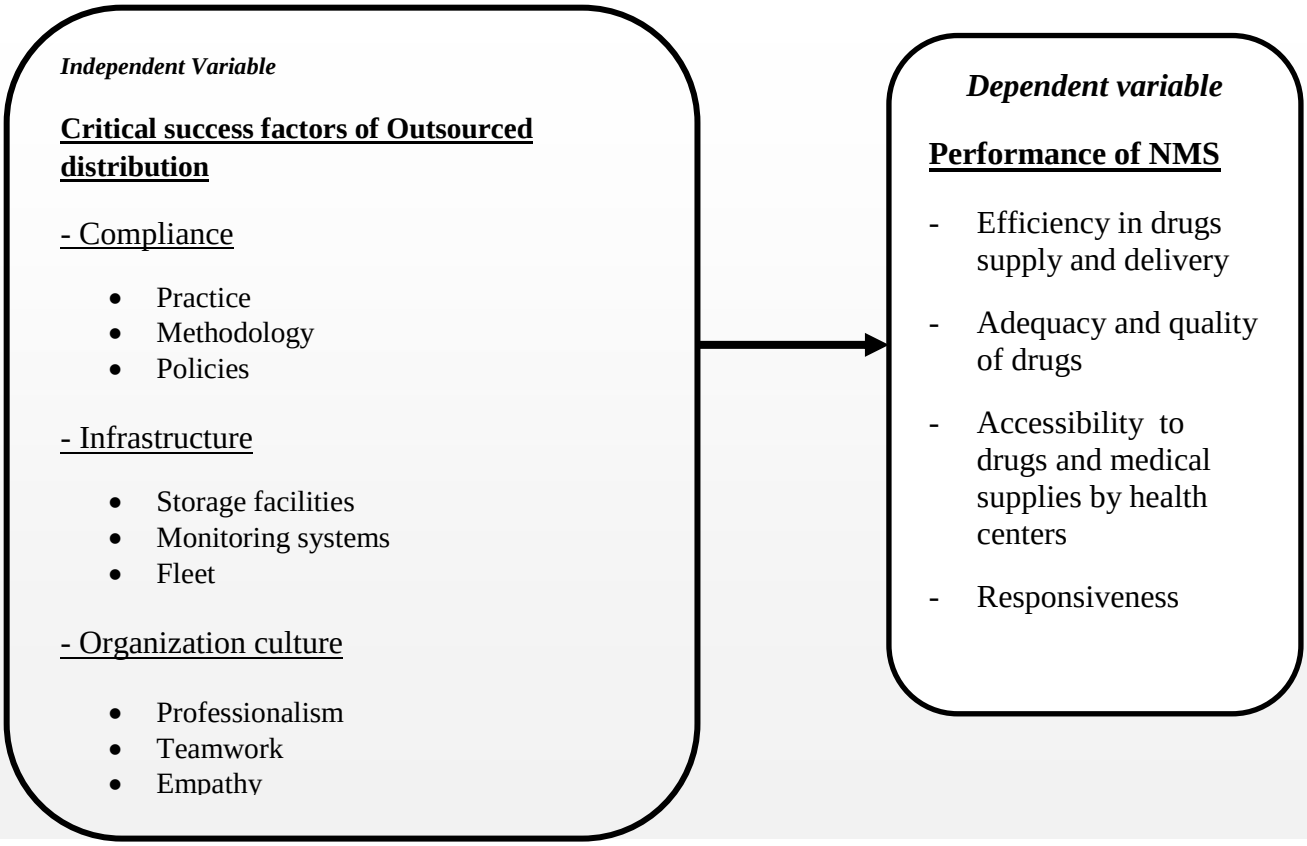

Figure 1: Conceptual Frame Work Showing the critical success factors for Outsourced Distribution Services on the Performance of NMS

Source: adopted from Applegate, et al; Conner and Prahalad, (2006). Carney 1997, Margaret Rouse, 2007)

The conceptual framework above denotes that the way Outsourced distribution services impacts on the performance of NMS. The dependent variable is the NMS performance which is measured

against effective drug supply, adequate drug supply and accessible medical supplies. The variance was explained by three independent variables, compliance, infrastructure and organizational culture which are all related to the dependent variable.

Compliance is an independent variable that relates to NMS performance as it gives room for the policies, procedures and methodologies agreed and accepted with NMS key performance indicators of drug and medical supplies.

Infrastructure helps improve the storage, distribution, monitoring and delivery of the drugs while ensuring the long term sustainability of service and goods. When infrastructure is of quality service delivery is enhanced thus reducing the risk or even avoiding the risk and at the same time reducing costs and time while enhancing service quality of NMS operations leading to the performance of NMS.

Organization culture as an independent variable helps in development of a relationship between the company and its customers has been viewed as a strategic choice vis-à-vis the transactional marketing approach and as a critical component for future business success (e.g. Crosby *et al*, 1990; Doney and Cannon, 1997). It can also lead to the attainment of competitive advantage (Mohr and Spekman, 1994), which is key and if well developed, it accosts all the negative concerns hence positively contributes to the performance of NMS.

1.9 Significance of the Study

The study fosters creation of new knowledge and awareness in the area of Outsourced distribution services management in all industry sectors both in the private and public sectors. It also makes a contribution to the wealth of knowledge on outsourced distribution services management in a Ugandan setting.

Policy makers in the distribution service sector will use the findings to draw up policies in line with the different constructs under consideration in this study and the findings to enhance their service quality. Finally Scholars interested in carrying out further research in this area will use the results as a foundation.

1.10 Justification of the Study

This study was relevant in two aspects namely: First, it will arm NMS management with information in addressing numerous concerns with outsourced distribution services and NMS performance. Secondly, this study provides supporting evidence to the factors that affect the overall performance of NMS. In addition, the outsourced distributors can use the results of this research to gauge their service quality and performance.

1.11 Scope of the Study

The scope covered the boundaries of the study in terms of the content, geographical area and the time period.

1.11.1 Content Scope

The study covered outsourced distribution services and performance in NMS. Outsourced distribution services will be studied under three main attributes of compliance, infrastructure and organization culture and how they lead to the performance of organizations with focus on NMS. Performance of NMS was understood based on dimensions of effective drug supply, adequate drug supply and accessible medical supplies.

1.11.2 Geographical Scope

The study was conducted in NMS located in Entebbe headquarters and includes also outsourced distributors' offices, located in Kampala where they have three main departments. The study covered operation and distribution units which are the commercial function of these businesses (Daks Couriers and Three Ways Shipping Services).

1.11.3 Time Scope

This study covered a period of two years from April 2011- April 2013.This is because, NMS took over the delivery of medicines and medical supplies to the lower level health facilities from district health authorities and consequently outsourced the services using two Logistics companies in Daks Couriers and Three Ways Shipping Services within the same period.

1.12 Operational Definitions

Accessibility is the degree to which a product, device, service, or environment is available to as many people as possible.

Adequacy is the quality of being able to meet a need satisfactorily.

Compliance is the state of being in accordance with established guidelines, specifications, or legislation.

Efficiency is the extent to which time, effort or cost is well used for the intended task or purpose.

Infrastructure is basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function.

Organization Culture is the collective behavior of humans who are part of an organization and the meanings that the people attach to their actions. Culture includes the organization values, visions, norms, working language, systems, symbols, beliefs and habits.

Performance is the extent to which the organizational resource fulfills the defined objectives or the set goals of the Organization.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the existing and related literature on the study variables of outsourced distribution services and the interrelations among them as put forward by various researchers and scholars. Actual literature review is carried out on each of the operational variables so as to establish the possible relationship and gaps in previous studies examined. The literature is arranged according to the objectives of the study.

2.2 Theoretical review

Theoretically, contracting -out proponents often have roots in public sector economics, and public choice theory and champion contracting as a way to reduce service costs through competitive efficiencies and economies of scale. The argument advanced is private contractors operating in competitive markets are under constant pressure to keep costs down and they often achieve this through innovative service delivery (Donahue, 1989). But some local governments have adopted contracting out in an effort to reduce taxpayer burden (Hisch, 1995). Commercialization covers a wide range of commercial transactions from the adoption of user-pays through to privatization of government assets(Spicer et al,1996), but in other scholarly works, it is conceptualized as establishing a framework falling between the traditional notion of public service and principles of contestability(Joghnson,1995) . In arguing for utilizing market principles in the public sector, there appears to be an assumption that the market is an efficient and appropriate allocative mechanism for distributing public sector goods and services (Brown, Ryan & Parker, 2000), but such arguments forget the broader environment in which government

takes place. Commercialization by its nature operates in the mix of social, economic and legal issue and it is contended that commercial performance of public sector agencies will be tempered inevitably by these broader considerations (Brown, Ryan & Parker, 2000) and contracting out cannot be an exception. But also, public managers operate in a crucible of swirling and often political values: effectiveness, efficiency, accountability, responsiveness, equality of treatment, and service quality (Fredrickso, 1997, Moe, 1996 & Rainey, 2003). Commercialization covers a wide range of commercial transactions from the adoption of user-pays through to privatization of government assets (Spicer et al, 1996), but in other scholarly works, it is conceptualized as establishing a framework falling between the traditional notion of public service and principles of contestability (Joghnson, 1995).In arguing for utilizing market principles in the public sector, there appears to be an assumption that the market is an efficient and appropriate allocative mechanism for distributing public sector goods and services (Brown, Ryan & Parker, 2000), but such arguments forget the broader environment in which government takes place.

Commercialization by its nature operates in the mix of social, economic and legal issue and it is contended that commercial performance of public sector agencies will be tempered inevitably by these broader considerations (Brown, Ryan & Parker, 2000) and contracting out cannot be an exception. But also, public managers operate in a crucible of swirling and often political values (Moe, 1996 & Rainey, 2003). The outsourcing theory is that pressure in competitive markets and organizations, forces organizations to concentrate on core activities and externalize certain specialized production jobs by means of subcontracting or outsourcing (Hugo et al, 2002).There is therefore what has been called the theory of core-competency- which suggests that there are activities that should be performed either in-house or by providers outside the organization.

Competencies are the skills, knowledge and technologies that an organization possesses on which its success depends (Mclvor, 2003). Secondly, there is the resource-based theory which holds that outsourcing is a strategic decision, which can be used to fill in the gaps of the firms' resources and capabilities. It argues that in order for an organization to become competitive, a resource must provide economic value and must be presently scarce, difficult to imitate, non substitutable, and not readily obtainable in factor markets.

Thirdly, is the transaction cost theory to outsourcing which combines economic theory with management theory to determine the best type of relationship a firm should develop in the market place (Mclvor, 2003).Transaction costs arise because it is often impossible to have complete contracting, and therefore an incomplete contract gives rise to subsequent renegotiations when the balance of power between the transacting parties shifts. Contracting proponents who often have roots in public sector economics, champion contracting as a way to reduce service costs through competitive efficiencies and economies of scale (Brown, Potoski, & Slyke,2006), and also was the contractual theory which holds that, an outsourcing contract provides a legally bound, institutional framework in which each party's rights, duties, and responsibilities are codified and the goals, policies, and strategies underlying the arrangements are specified. Finally, there was the relational exchange theory that postulates that, the key to determining how efficient the contract governance is made lies in the relational norms between the transactors who in this case include a particular local government and the provider that has been contracted to offer the service.

Just as any business activity creates a private product and a social product (Coase, 1960), so it is with outsourcing. On the private product side, outsourcing has the ability to lower innovation

costs and risks (Quinn, 2000), as well as the ability to improve financial performance (Crane, 1999) and increase productivity (Casale, 1996). Existing research has mostly focused on the private product of outsourcing around these themes of efficiency. There is limited research that has examined the social product of outsourcing, specifically around mass layoffs and the consequences on workers who lose their jobs. The question of the social product accompanying the decision to outsource from a Transactional Cost Economics (TCE) perspective is examined in this study.

Outsourcing in the Information Technology sector is explained as an attempt to restructure the corporation around core competencies (Elmuti, 2003). Restructuring around core competencies is undertaken by delegation of non-core functions to specialized external service providers (Corbett, 1999). This involves deciding between conducting routine tasks in-house or through a vendor using the market-mechanism. TCE provides a way to understand this issue and accompanying consequences conceptually, to make in-house or buy from the market.

Other studies have argued that, conceptually, in a never - ending search for competitive advantage, companies should recognize limits on their distinctive competencies and look to outsourcing as the strategy of choice for obtaining needed skills and products (Knod & Schonberger, 2001) . Outsourcing; or 'contracting out', has been one of the most recent management strategies to emerge in response to demands for more efficient ways to address organizational competitiveness and in an age where management carefully weighs the costs and benefits of every discretionary investment dollar, finding evidence of the results of outsourcing has become critical (Jiang, & Qureshi, 2006).The prescriptive literature on contracting tends to

offer step-by-step procedures for managers to identify service delivery decisions and apply contract management techniques (Brown, Potoski & Van Slyke, 2006).

Firms are faced with a central economic problem: adopting a governance structure that minimizes transactional costs involved in undertaking economic activities.

Williamson (1998) suggests that there are two governance structures for undertaking economic activities. One is the firm that acts as an alternative to an alternative governance structure, which is the market mechanism. Williamson (1998) also suggests a third type of governance structure as Government bureaucracies.

Resource dependency theory

There is considerable literature comparing the virtues of markets and hierarchies as alternative governance structures for economic transactions. But governance decisions are not simple dichotomous choices, and there has been recent increasing interest in the 'swollen middle' of hybrid organisational forms that combine market and hierarchical elements. One such hybrid is outsourcing, which has become a topic of considerable contemporary interest both in business circles and within the academic literature (Brandes *et al*., 1997). A range of managerial motives have been put forward for the apparent rise of outsourcing as a corporate strategy in recent years, notably to enable the lead firm to concentrate on 'core competencies', or to gain access to expertise and competencies not available in-house, or to take advantage of economies of scale and/or scope enjoyed by external suppliers. Much of the literature provides illustrations of outsourcing of 'support activities' (Porter, 1985: 40-43) such as IT or other back-office services (Quélin and Duhamel, 2003; Berggren and Bengtsson, 2004), and here the above arguments clearly have some validity. But such arguments appear to have less validity for many firms

which have outsourced ‘primary activities’ (Porter, 1985: 39-40) in a range of industries which produce goods as diverse as footwear, clothing, cars, or pharmaceuticals. This section draws upon the resource dependency theory, the resource-based view of the firm, and transaction cost economics to provide a comprehensive explanation of the conditions under which lead firms resort to the outsourcing of primary activities, and of the reasons why such outsourcing has grown in importance in recent years. It is argued that certain firms choose to outsource primary activities within their production chains to independent suppliers, not because of relative capability considerations, but because they are able to leverage their resources to appropriate the rents from the chain whilst reducing their asset base (Mahnke, 2001). Furthermore, this ability to leverage its resources enables the firm to maintain control over the activities within the chain, even without equity participation in the subordinate suppliers. In short, we would suggest that the outsourcing of primary activities should not be viewed simply as a manifestation of the classic Coasian ‘make or buy’ decision but that it is a hybrid governance structure, that lies between pure contract-based market relations and internal managerial hierarchy, for exploiting the firm’s capabilities whilst retaining effective managerial control over the production chain Mahnke .V, (2001).

2.2.1 Compliance of outsourced distributors and performance of organizations

Outsourcing has become a mega trend in many industries, most particularly in logistics and supply chain management (Feeney et al. 2005). The overall scope of outsourcing is continuing to grow, as companies focus on their core competencies and shed tasks perceived as noncore (Lindner, 2004). For example, recent data indicate that the outsourcing of human resources (HR) functions is pervasive, with 94 percent of firms outsourcing at least one major HR activity, and

the majority of firms planning for outsourcing expansion (Gurchiek, 2005). Research assessing the outsourcing of sales, marketing and administrative functions provides parallel results, with at least portions of these functions now being outsourced in 15–50 percent of sampled firms (The Outsourcing Institute 2005; GMA 2006). Similarly, the third- and fourth-party logistics industries are booming, with between 65 percent and 80 percent of U.S. manufacturing firms contracting with or considering use of a logistics service provider in the last year (Langley et al. 2006). Thus, managers are increasingly feeling pressure to make the right sourcing decision, as the business consequences can be significant (McGovern & Quelch 2005). Good outsourcing decisions can result in lowered costs and competitive advantage, whereas poorly made outsourcing decisions can lead to a variety of problems, such as increased costs, disrupted service and even business failure (Cross 1995). Poor outsourcing practices can also lead to an unintended loss of operational level knowledge.

In the 1990s, outsourcing was the focus of many industrial manufacturers; firms considered outsourcing everything from the procurement function to production and manufacturing. Executives were focused on stock value, and huge pressure was placed on the organization to increase profits. Of course, one easy way to increase profit is by reducing costs through outsourcing. Indeed, in the mid1990s there was a significant increase in purchasing volume as a percentage of the firm's total sales. More recently, between 1998 and 2000, outsourcing in the electronics industry has increased from 15 percent of all components to 40 percent (Cross, 1995).

Making the right outsourcing decision requires a clear understanding of the broad array of potential engagement options, risks and benefits, and the appropriateness of each potential arrangement for meeting business objectives. Many variations of outsourcing alternatives exist, resulting in a lexicon of terms, such as out-tasking, collocation, managed services and business process outsourcing. This has led to confusion for many managers, who feel pressure to make the right decisions and often view outsourcing as an all or nothing proposition to offload and bring down the costs of noncore activities. In fact, one of the biggest misconceptions about outsourcing is that it is a fixed event or a simple make-or-buy decision. In reality, outsourcing is an umbrella term that encompasses a spectrum of arrangements, each with unique advantages and risks. Understanding the relative risks and benefits of each of the potential alternatives is critical in making the right outsourcing decision.

The significant level of outsourcing programs used across all business sectors is well documented in the literature Denison (2004). Past research has progressed along several paths. First, some researchers have focused on motivations and reasons for outsourcing activities (Frayer and Thomas, 2000). According to this perspective, the global imperative for outsourcing accelerates as firms evolve from sellers of products and services abroad to setting up operations in foreign countries and staffing those operations with host countries or third party nationals (Greer *et al*. 1999). Most corporations believe that in order to compete globally, they have to look at efficiency and cost containment rather than relying strictly on revenue increases (Conner and Prahalad, 2006). As companies seek to enhance their competitive positions in an increasingly global marketplace, they are discovering that they can cut costs and maintain quality

by relying more on outside service providers for activities viewed as supplementary to their core businesses.

Other researchers have identified several outsourcing issues, trends and strategies that companies take in establishing and effectively managing their outsourcing activities (Carney 1997). The trend is for outsourcing relationships to function more as partnerships. Outsourcing providers are taking increasing responsibility in realms that have traditionally remained in-house, such as corporate strategy, information management, business investment, and internal quality initiatives (Carney, 1997). A survey of U.S. CEOs shows that 42 percent of communication firms, 40 percent of computer manufactures, and 37 percent of semiconductor companies rely on global outsourcing (Faber 1995). According to another survey conducted by Duncan and Groves-Rowan (1997), more than 65 percent of banks surveyed indicated that they were already involved in at least one type of outsourcing function. The five most commonly used outsourcing functions in banking were taxes, bankruptcy/foreclosures, systems, cashiering, and insurance (Jennings 2006). Personnel expenses were the primary reason behind banking outsourcing; however, it also improves operating efficiency and reduces service costs.

On the other hand, Kotabe (2008) argues that there could be negative long-term consequences of outsourcing resulting from a company's dependence on independent suppliers. Such reliance on outsourcing may make it inherently difficult for the company to sustain its long-term competitive advantages without engaging in the developmental activities of the constantly evolving design and engineering technologies. Other researchers have examined the outcomes of technology-sourcing partnerships from the sourcing firms point of view (Steensma *et al*., 2000) found that; in general, equity-based alliances were more effective than contract-based outsourcing. Steensma

et al., 2000) suggest that the outcomes from technology partnerships for sourcing firms depend on the interaction between technology attributes and the interdependence between source and sourcing firms.

Other researchers have focused on outsourcing strategy effectiveness and its impact on organizational characteristics. Frayer *et al*. (2001) suggest that in order for an out-sourcing strategy to work effectively, companies must proactively manage their outsourcing strategies by establishing top management commitment, global sourcing structures and processes, and global sourcing business capabilities. In addition, they suggest that companies that have not raised their sourcing approach to global, strategic level may already be behind in terms of quality, cost, delivery, technology, performance, and customer service. Klaas *et al*. (2001), suggest that the influence of organizational characteristics was highly contingent, suggesting that organizational characteristics have different effects on various types of outsourcing activities outsourced. As such, it appears that many factors such as pay level, promotional opportunities and demand uncertainty should be considered when deciding to outsource functions or activities.

Other researchers have focused on outsourcing performance measures (Kotabe, *et al*., 1998; Goldstein 1999; Malhorta 1997; Carney 1997). For example Kotabe *et al.* (1998) identifies three types of performance measures as necessary components in any outsourcing performance measurement system: strategic measures; financial measures; and quality measures. Other studies use additional dimensions of market performance such as costs savings, cycle time, customer satisfaction, and productivity to measure the effectiveness of outsourcing strategy (Deal and Kennedy, 2012).

From a different perspective, obstacles such as poor choices of sourcing partners, inadequate planning and training/skills needed to manage outsourcing activities and poor organizational communication have also been identified as impacting the success of outsourcing projects.

Fewer studies have examined the outcomes of outsourcing activities. Lau and Hurley (2007) find a significant relationship between outsourcing and profitability margin where they found that Chryslers profit margin is four times as high as that of GM due to effective outsourcing through strategic alliances. Frayer *et al*., (2000) suggest that companies are increasingly viewing outsourcing strategies as a means of reducing costs, increasing quality, and enhancing a firms overall competitive position.

In the past pharmaceuticals had a different strategy, companies use to build all the products internally and confine access to information or resources to third parties.

Frayer et al., (Ibid), add that in the past pharmaceuticals had a different strategy, companies use to build all the products internally and confine access to information or resources to third parties. However, outsourcing - the current mantra of pharmaceutical industry - is being used more strategically as an ongoing part of a company's overall business strategy. Outsourced activities can be in various fields' right from the drug discovery till manufacturing of the products. Pharmaceutical firms have long outsourced functions which include manufacturing, packaging; clinical trials and sales force mobilization.

The Uganda market for outsourced pharmaceutical manufacturing is growing at the rate of 10 to 12% annually. Pharmaceutical companies will continue to fuel much of this growth as they outsource an increasing number of products and services. Biotechnology companies, which have

almost doubled in number during the past five years, also contribute to this trend as they seek ways of bringing their products to market without making capital investments in their own manufacturing facilities.

The study revealed that Compliance of outsourced distributors has a huge impact on performance of NMS at 55.1% as in Table 12; it shows that NMS should uphold this key virtue hence not affecting performance of NMS. Thus, an improvement, in the Compliance of outsourced distributors would enhance performance of NMS. On the other hand a non-compliance of outsourced distributors would contribute negatively on performance of NMS**.** This also shows that for any institution to develop steadily Compliance of any of its outsourced partners should be held in high regard.

2.2.2 Infrastructure and performance of organizations

Infrastructure outsourcing is a subcontracting service in which the management of an organization's distribution services and applications is handled by a third party. While these services have become very popular in recent times, the concept of outsourcing is not entirely new. In fact, corporations such as EDS, IBM, and Unisys started the infrastructure outsourcing trend in the early 1990s by seizing full ownership of the employees and distributing assets of client companies (Bradford, 2013).

When entering an infrastructure outsourcing agreement, a company may also receive management of its network routers and switches, security mechanisms, desktops and peripherals, disk storage, and bandwidth. In an ideal environment, the service provider works with the customer to build a custom, scalable solution tailored for their needs. Because the contractor typically manages every aspect of the infrastructure, this type of agreement can free up the time a

company needs to focus on its core initiatives, helping the organization dramatically increase its business efficiency (Applegate *et al*. 2007). In most cases infrastructure outsourcing aims at taking the pain, confusion and cost complexities out of distribution service provision for companies with limited, or no, dedicated distribution resources. Even companies with the distribution department in place can benefit tremendously from the opportunity to control costs and track where its financial resources are going, while obtaining the distribution services the business requires. With the right solution, an organization has the potential to greatly simplify its infrastructure and reduce the cost of distribution operations (Applegate *et al*., 2007).

The competitive business environment, coupled with a volatile economic climate, demands that organizations invest time, talent, and financial resources on core competencies and activities that differentiate their business from the competition. Even if yours is a technology-centric organization, the management and support of your IT infrastructure is unlikely to be a core competency or business differentiator. Rather than deploy internal resources on non-differentiating activities, Infrastructure & Operations (I&O) professionals should look to IT infrastructure outsourcing vendors to provide or manage IT infrastructure (Larry, 2008).

The idea of – focusing resources on what a company does best, leaving the rest to specialists is not new. However, the imperative to drive down costs, improve efficiency, and simplify IT operations has never been stronger. Unfortunately, now is not the right time for major IT outsourcing programs. Such initiatives take many months to plan and execute, and they only make sense in a stable economy. In today's uncertain times, I&O professionals need immediate cost reductions combined with maximum flexibility. Stay focused on outsourcing the commodity

elements of IT infrastructure on short-term contracts with standard service-level agreements (Larry, 2008).

While the business case for infrastructure outsourcing is sound, organizations still find cost savings lower than expected. Organizations also often neglect to measure infrastructure service levels and therefore don't know what SLAs they need from vendors. And, infrastructure outsourcing contracts typically fail to incorporate adequate provisions for innovation to ensure that businesses stay current with emerging best practices (Firzil and Bazi, 2011).

Georg (2009) observes that Outsourcing works best for well-defined commodity services delivered against standard service levels, emphasizing that professionals must push back against an overemphasis on cost reduction and provide valid evidence of the issues that arise when a purely cost-driven approach rules the outsourcing decision. Aggressive demands to lower costs force vendors to respond with proposals for long-term contracts with little or no flexibility. Such rigid contracts, as Littman (2008) observes, cannot accommodate the dynamic nature of today's business environment. As a result, organizations inevitably end up buying services á la carte or growing internal staff or contractors to accommodate their urgent needs - an approach that often costs organizations more in the long term. With such broad-reaching implications, the term can be applied to a number of distribution management and administration services such as help desk or network administration. When considering location, remote infrastructure management can take place in the next room, across town, or in another city or country.

Implementing safety and testing plans is often essential for effective infrastructure asset management. If a government builds a new water pipeline, it must conduct regular testing to

ensure that the water is safe for drinking and that pipelines are correctly and capably handling the flow of water through the pipes Barthélemy (2003).

A significant component of infrastructural services is a well-developed information system. Information flows may be electronic, paper-based or voice based. Advances in information and communication technology (ICT) quality and coverage in recent years means that increasingly information is stored and processed electronically. The need for a high standard of telecommunications services is imperative to permit the timely and reliable flow of information. Telecommunications and electricity infrastructure are required to be of a sufficiently elevated standard in order for information systems to work smoothly and reliably. If economies, and in particular, developing economies, are to participate fully in global production and supply of intermediate and finished goods, their ability to do so will be affected by the standards of their ICT infrastructure as an important component of logistic and transport facilitation. Such measures include customs automation, the ability to track and trace goods in transit at every stage of the process, pre-arrival clearance, risk-analysis, the electronic submission of customs forms and documents, information management and terminal operations and electronic single windows. Implementation of these measures can help reduce transaction costs. For example, the introduction of a single window to fulfill requirements for import and export, transit regulation and clearance aims to expedite and simplify information flows between the trading community and the government. Advantages include cutting costs through reducing delays with faster clearance and release, and more effective and efficient use of resources (Bade, Targett, Hunt, 2000).

In relation to this study, if an organization doesn't know where it's going, any infrastructure will get it there. Trying to build and organizational infrastructure without a clear goal inevitably leads to high levels of personality and politics. In this environment infrastructure decisions are made based on who can argue the best and who can build the strongest power base, not on what is the right thing to do for the business. Therefore establish goals and a result is a critical first step in infrastructure development. Therefore the first step in building infrastructure is to establish the organization's goal (how it adds value) and its Results (key metrics). An organization that adds value through organizational efficiency, for example, will organize its people, process and structure different than an organization that adds value by developing innovative new technologies Barthélemy, Geyer, 2005).

Once an organization establishes its goals and results, it will be easier for it to determine how to organize its people, process and structure to maximize results and achieve its goals. If the goal is organizational efficiency and the measure is controlling cost, quality and cycle time, the organization will want to move and the right side of the Playing Field and differentiate these elements. If the goal is effectiveness and the measure is innovation, it will want to move to the left side of the playing field and integrate these elements Brege, (1997).

To maximize performance, the organization must allow different organizational units to develop different infrastructures within the overall framework. An infrastructure focused on inventing new technologies, for example, will place research and development to the far left (integration) to maximize the freedom to be creative (Click, & Duening, 2005).

The study revealed that the internal infrastructure of outsourced distributors has a huge impact on performance of NMS at 50.2% as shown in Table 16; it shows that NMS should uphold this key virtue hence not affecting performance of NMS. Thus improvement, in the infrastructure of outsourced distributors would enhance performance of NMS. On the other hand poor infrastructure of outsourced distributors would contribute negatively on performance of NMS.

2.2.3 Organization culture and performance of organizations

Organization culture is an arrangement of different attributes that express an organization and differentiate one organization from another (Dasanayake and Mahakalanda, 2008). According to Daft (2000), culture is the collective thinking of minds which create a difference between the members of one group from another. As per Schein (1990), defines culture is set of different values and behaviors that may considered to guide to success. According to the Kotter and Heskett (1992), culture means fairly established set of beliefs, behaviors and values of society contain generally. it is generally understood that culture is gained knowledge, explanations, values, beliefs, communication and behaviors of a large group of people, at the same time and same place.

Organization culture idea must be learned and shared in the organizations (Titiev, 2009). Pettigrew, (2009) argues that cultures of organizations are based on cognitive systems which help to explain how employees think and make decision. He also noted the different levels of culture based on the multifaceted set of beliefs, values and assumptions that determine ways how organizations conduct business. According to Tichy (2002), organizational culture is known as “normative glue” meaning, to hold the overall organization together. The concept of organizational culture also makes available a base for determination of the differentiation that

may survive in-between the organizations that are doing business in the same national culture (Schein, 2000).

The challenge before managers is to cultivate an organizational culture that supports innovation. In high-performing firms, organization culture is more associated with innovation (O'Regan *et al*., 2006). Problems of small firms in developing a quality culture are resistance to change, lack of experience in quality management, lack of resources. Managing organizational culture effectively requires clarity in the minds of managers about the type of culture and specific norms and values that will help the organizations reach its strategic objectives. Support for taking risks, change and tolerance for mistakes stimulates creativity. It has been found that those employees SMEs for competitiveness with high-job satisfaction exhibited the highest creativity when commitment to company was high and when support for creativity was available from the organization and coworkers (Zhou and George, 2001). Culture and cultural fit are more important in SMEs than other organizations because an SME is likely to be entirely enveloped in a culture, rather than large organizations, where several cultures may be present. It is easier to attain cultural change in SMEs than in larger organizations. However, it is probably more difficult for SMEs management to recognize the need for change Ghobadian and Gallear, (1996). McAdam and McClelland (2002) have observed a strong correlation between the culture of continuous improvement and innovation in SMEs. Quality culture is a key enabler in the development of innovation management. Flat structure of SMEs and fewer departmental interfaces normally result in a more flexible work environment.

Atiomo (2000) defines discipline "as the training of the mind and character to produce self-control and habits of obedience". In its general sense, discipline refers to punishment of some sort for wrong doing and can be a useful tool for behavior modification, for reorientation and for educational purposes (Udom, 1998). According to Atiomo (2000), the most embarrassing and complex part of the job for many managers is the need to deal with problems which arise from the failings of employees, deficiencies of character or attitude, lack of self-control and disobedience-all of which can affect the work and the morale of colleagues and that while a manager may sometimes turn a blind eye on some of these frailties where there are reasons for thinking that an employee's lapse from the usual standard is temporary and self-correcting, the manager cannot indefinitely stand by it if performance and relationship are suffering; he therefore, has to apply sanctions as laid down in the organization's procedure for discipline. Discipline is a measure aimed at producing self-control and habit of obedience. Leaders are sometimes constrained to adopt disciplinary measures in order to correct negative attitudes of staff that run counter to organizational goals. Robins, (1996) notes that at some time, every manager has to deal with an employee who drinks on the job, is insubordinate, steals company property, arrives consistently late for work, or engages in similar problem behavior; that managers will normally respond to with disciplinary action such as oral reprimands, written warnings, and temporary suspensions.

Daft (2000) used data from 34 American firms on cultural performance over a period of five years and scrutinized the characteristics of organizational culture and tracked the performance over time in these firms. As per Chenhal (2005) stated that culture researchers have committed various studies to the definitions of culture; relatively few researchers have been contributed in

culture and performance research. Only reason for doing this was the complexity in operational concept of the culture construct.

According to Burns, and McKinnon (2003), in their study investigating the relationship between long-term organizational performance and economic performance across more than 200 organizations note that organizational culture attached to performance initiated on the apparent role that culture can play, causes caused competitive advantage. Burns and McKinnon (2003) who conducted a study on how to overcome some of the limitations in measuring the culture of organization found that there is no positive correlation between culture and employee performance. Other theorists also argue that sustainable competitive advantage arises from the formation of organizational competencies which are both superior and incorrectly imitable by competitors (Barney, 2010). Practitioners and academics suggested that the performance of an organization is dependent on the degree to which the values of the culture are comprehensively shared (Alvesson, 2000).

On the other hand and in relation to the study some have been skeptical of the notion that a strong culture boosts performance, particularly in dynamic environments. Most notably, Sorensen (2002) found that strong-culture firms gained an advantage in static environments through greater reliability in bottom-line financial outcomes, but that having a strong culture was associated with less reliable and ultimately weaker financial results when operating in turbulent environments.

Sorensen (2002) theorized that strong cultures lead to consistency in performance by increasing employee consensus and willingness to endorse organizational goals, reducing uncertainty

through goal clarity, and increasing motivation. Further, he argued that this social control leads to greater consistency and reliability in performance. But, in volatile environments, those in which technology and macro-economic conditions are changing rapidly, he found that the very consistency that boosted firm performance in static environments appeared to constrain a firm's ability to adapt to new strategic challenges and reduced its performance.

The study revealed that that organizational culture of outsourced distributors has a huge impact on performance of NMS at 61.9% as it shown in Table 20, it shows that NMS should uphold this key virtue hence not affecting performance of NMS. Thus improvement, in organizational culture of outsourced distributors would enhance performance of NMS. On the other hand poor organizational culture of outsourced distributors would contribute negatively on performance of NMS**.**

2.3 Summary of the Literature Review

From the views of the various scholars in respect to outsourced distribution services and organizational performance, it was noted that, given the ever changing business needs and regulatory environment and the number and diversity of types of policies and procedures being created by companies globally and locally, outsourced distribution services and organizational performance must be reviewed, evaluated, and strengthened regularly in order to stimulate organizational performance. However, it is sad to note that all authors have contextualised their findings in the developed and emerging economies hence the knowledge gap which calls for further investigation to determine the impact of outsourced distribution services on organizational performance in order to fill the existing gap. It should be noted that it is not proper

to outsource distribution and expect the agencies to stand the test of time without periodically modifying their procedures in order to meet current market and business conditions.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section presents a detailed plan and methods of systematically obtaining data for the research. The section covered; the research design, the study population, the sample size and selection of sample, the sampling techniques and procedures, the data collection methods, the procedures of data collection, the data analysis, and the measurement of variables.

3.2 Research design

The study was carried out mainly using Cross-Sectional Survey Design . The design was chosen because it enabled the researcher make inferences about a population of interest at one point in time (Crossley, and Archibald, 1985). Both quantitative and qualitative approaches were employed. This approach was used because it established a clear and objective orientation, a vigorous, disciplined and systematic procedure, and a reality bound methodology, which allows arriving at a theory that will be free from vague and sloppy approaches, speculative thoughts about reality, and a theory that should be distinguished from a social philosophy, abstract speculation and everyday assumptions (Stergios1991; Vlahos, 1984).

3.3 Study population

The study targeted a study population of 105 subjects, constituting of two distributions service providers (Daks Couriers & Three ways Shipping Services) staff, senior, middle and lower managers at NMS and other staff from NMS as depicted in Table 1. The distribution service providers contracted to execute the service - Daks Couriers & Three ways Shipping Services were interviewed and the NMS staff involved in the distribution function were 20. These were selected because they actively involved in the implementation of the last mile delivery done by the distribution service providers. It also targeted key members of the NMS management team to get the strategic views on the research topic.

3.4 The sample size and sampling technique

Table 1: Determining Sample Size from a Given Population

Level of structure	Target	Sample	Sampling Technique

	Population Size	Size	
Outsourced Distributors			
Staff at Lower and Middle management	70	59	Simple Random Sampling
Staff at Senior management	15	14	Purposive sampling
Staff at NMS			
NMS staff at Senior management	10	10	Purposive sampling
NMS staff at Middle management	10	10	Purposive sampling
Totals	**105**	**93**	

Source: Primary data

Mugenda & Mugenda (2003) advises that the researcher should take a sample size which is big enough to ensure confidence and reliability of the results. Sekaran, (2003) argues that a sample size that is larger than 30 but smaller than 500 is appropriate for most research. The study sample size was determined using Krejcie & Morgan tables. According to Sarantakos, (2005) an easy to use sample size table is offered to facilitate sample size determination. The samples used in the study were selected using the simple random sampling and purposive sampling. The sample size was 93 respondents.

3.5 Sampling Techniques and Procedures

According to Sekaran, (2003) sampling is the process of choosing the research units of the target population, which are to be included in the study. A probability sampling method is where all elements have an equal chance of being selected (Mellenbergh and Adder, 2003).

Non-probability sampling is any sampling method where some elements of the population have no chance of selection (these are sometimes referred to as 'out of coverage'/'under covered'), or where the probability of selection can't be accurately determined. It involves the selection of elements based on assumptions regarding the population of interest, which forms the criteria for selection.

3.5.1 Purposive sampling

Purposive sampling technique under non-probability sampling was used to select Staff at senior management with outsourced distributors and NMS staff. The technique was used because; the focus of the researcher was to get in-depth information and not simply making generalizations. Those selected provided the required information in-depth since their selection was based on their appropriateness to give the required information.

3.5.2 Simple Random Sampling

In a simple random sample ('SRS') of a given size, all such subsets of the frame are given an equal probability. Each element of the frame thus has an equal probability of selection: the frame is not subdivided or partitioned. Furthermore, any given pair of elements has the same chance of selection as any other such pair (and similarly for triples, and so on). This minimizes bias and simplifies analysis of results. In particular, the variance between individual results within the sample is a good indicator of variance in the overall population, which makes it relatively easy to

estimate the accuracy of results. This method was used to sample Staff at Lower and Middle management with outsourced distributors.

3.6 Methods of Data Collection

3.6.1 Questionnaire Survey

The questionnaire design carefully followed the research objectives guiding the study. Neuman (2003) defined a questionnaire as a survey in which the researcher conceptualizes and operationalizes the variables and questions. Questionnaires were very appropriate for collecting information regarding surveys that deal with the perception of the variables. The questionnaires were self-administered to the respondents who were able to read and answer questions without being influenced by the interviewer. A semi- structured questionnaire was the main instrument of data collection for the study. A Likert type of questionnaire was designed and administered on Staff at Lower and Middle management with outsourced distributors, as respondents to explore their responses regarding the different statements describing the key variables of Outsourced distribution services and the performance of organization with the case study of NMS. The main advantage of self-administered questionnaires is that the researcher or member of the research team can take control and ensure that all the completed questionnaires are completed within a short period of time (Sekaran, 2003).

3.6.2 Interviewing

This is a method of data collection where the investigator is given a chance to gather data through direct verbal interaction with participants (Amin, 2005). The researcher used the interview to collect data from selected key informants among the Staff at senior management

with outsourced distributors and senior and middle management staff at NMS in his researcher endeavor. The researcher chose the above categories of respondents because they were key and central among all the respondents. An interview guide consisting of structured questions was designed and administered to the above relevant and key stakeholders. Information solicited by this instrument helped the researcher to enhance response from the self-administered questionnaires and make it possible for the researcher to cross examine some key issues in the research. Interviewing is a good method for producing data based on information priorities, opinions, and ideas based on informants. Thus, respondents have an opportunity to expand their ideas, explore their views and identify what they regard as their crucial factors (Babbie, 1990).

3.7 Data Collection Instruments

3.7.1 Questionnaire

Adopted from Mugenda & Mugenda (2003) collection of data involved use of a researcher administered questionnaire which contained both structured closed-ended questions and unstructured open-ended questions.

3.7.2 Interview schedule

The researcher employed an Interview Schedule which contained open-ended questions to be asked during face-to-face interviews with key informants. During the interviews, the researcher asked standard questions and nothing more based on Leedy & Ormrod (2001).
3.8 Validity and Reliability of Research Instruments

3.8.1 Validity

In scientific research, validity refers to the extent to which the instruments are relevant in measuring what they are supposed to measure (Amin, 2005). The researcher requested the two supervisors to score the content with the questionnaire: and the average percentage of the score was used to determine the Content Validity Index (CVI). In cases where the average percentage was found to be above 50%, the content was considered to be valid. The formula below was used to check for validity of the research questions:

$$CVI = \frac{R}{R+N+IR} \qquad (3.8.1)$$

Where;

R is Relevant. N is Neutral, and IR is irrelevant. The closer the value is to 1, the more valid is the instrument (Amin, 2005).

Score from supervisor 1: R=70%, N=5%, IR=10% result= 82%

Score from supervisor 2: R=70%, N=5%, IR=15% result= 79%

From the two supervisors the average score was 80.5 % which made the questionnaire content valid.

The researcher used the same Interview Schedule on all the interviewees and cross check the answers with the organization's documents. According to Sarantakos (1993), validity is the property of a research instrument that measures its relevance, precision and accuracy. Validity tells the researcher whether an instrument measures what it is supposed to measure and whether this measurement is accurate and precise. It measures the quality of the process of measurement,

and one that reflects the essential value of a study, and which is accepted, respected and indeed expected by the researchers and users of research.

3.8.2 Reliability

Reliability was established using SPSS Reliability Analysis Scale (Alpha coefficient). This is because of its easy and automatic applicability which fitted a two or more point rating scale. The instruments of the research were based on the Likert type five-point scale. The researcher used Alpha co-efficient because it is easy and automatic to apply.

The formula of Cronbach's Alpha Coefficient (α) used was;

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum SD^2 i}{SD^2 t}\right)$$

(3.8.2) where

α = Alpha coefficient

K = Number of items in the instrument

∑ = Sum

$SD^2 i$ = Individual item variance

$SD^2 t$ = Variance of total score

The researcher will use Alpha co-efficient because of it being easy and automatic to apply.

Substituting in the formula:

α = 0. 874

K= 34 items

$\sum SD^2 i$= 361.584

The instrument was found to be valid in this study at 0.874. The researcher used Alpha co-efficient because of it being easy and automatic to apply.

3.9 Data Management and Analysis

3.9.1 Quantitative Data Analysis

After obtaining quantitative data from close-ended questions, it was edited to remove any errors. Data was cleaned and coded according to themes derived from the research objectives. Quantitative data was edited. The process of cleaning the data was done to remove any errors and help improve the reliability of the data. Statistical packages of data analysis such as Excel and SPSS were employed to tabulate the raw data and provide comparisons that eased the analysis. The collected data was analyzed using quantitative analysis which majorly involved six major activities namely, data preparation, counting, grouping, and relating, predicting and statistical testing. Data preparation involved all forms of manipulations that were necessary for preparing data for further processing such as coding, categorizing answers to open-ended questions, editing and checking as well as preparation of tables; counting, including the mechanical task of registering the occurrence and frequency of the occurrence of certain responses. Grouping and presentation involved ordering of similar items into groups. Data was then distributed and presented in the form of tables and graphs. Establishing relationships involved cross-tabulation and statistical tests to explain the occurrence, direction and strength of relationships, while predicting - a process of extrapolating trends identified in the study into the future helped the researcher to conduct statistical testing.

The researcher also used factor analysis approach to indentify the critical components for each of the independent .. The Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity (KMO) statistic varied between 0 and 1. Whereby a value of 0 indicated that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations (hence, factor analysis is likely to be inappropriate). A value close to 1 indicated that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors. Kaiser (1974) recommends accepting values greater than 0.5 as acceptable (values below this should lead you to either collect more data or rethink which variables to include). Furthermore, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson and Sofroniou, 1999, pp.224-225). For these data the value is 0.93, which falls into the range of being superb: so, we should be confident that factor analysis is appropriate for these data.

The first analysis run was using an orthogonal rotation. SPSS Output 6 shows the rotated component matrix (also called the rotated factor matrix in factor analysis) which is a matrix of the factor loadings for each variable onto each factor. This matrix contains the same information as the component matrix in SPSS Output 4 except that it is calculated after rotation. There are several things to consider about the format of this matrix. First, factor loadings less than 0.4 have not been displayed because we asked for these loadings to be suppressed. If you didn't select this option, or didn't adjust the criterion value to 0.4, then your output will differ. Second, the variables are listed in the order of size of their factor loadings because we asked for the output to be Sorted by size. Finally, for all other parts of the output the researcher suppressed the variable labels (for reasons of space) but for this matrix I have allowed the variable labels to be printed to

aid interpretation. Before rotation, most variables loaded highly onto the first factor and the remaining factors didn't really get a look in. However, the rotation of the factor structure has clarified things considerably: there are four factors and variables load very highly onto only one factor (with the exception of one question). The suppression of loadings less than 0.7 and ordering variables by loading size also made interpretation considerably easier.

3.9.2 Qualitative Data Analysis

To analyze qualitative data, the researcher identified and transcribed the qualitative findings into themes. The themes were arranged into different categories from which lessons were deduced for reporting. Such reporting was done manually written in paragraphs. The researcher used content comparisons, logical analysis, and expert judgment. Subjective analysis was also used to enrich the information given with vivid reporting.

This bridged the information gap on issues that the researcher was not able to quantify, such as the perception of the interviewees.

3.10 Procedure for Data Collection

A letter of introduction was obtained from the School of Management Science of UMI introducing the researcher to the field. This followed appointment of research assistants who together with the researcher went to the field to pre-test the instruments and later collected the data.

3.11 Measurement of Variables

The independent variable was measured using the following constructs: Compliance (Practice; Methodology and Policies); Infrastructure (Storage facilities; Monitoring systems and Fleet); Organization culture (Professionalism, Teamwork; Empathy and Creativity).

While the dependent variable was measured using the following parameters; Performance of NMS **(**Efficiency in drugs supply and delivery; Adequacy and quality of drugs; Accessibility to drugs and medical supplies by health centres; Responsiveness)

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents data collected using the questionnaire, documentary analysis/literature review, interviews and observation of the case study described in Chapter 3. The corresponding interpretations also follow each presentation. The results of the study are presented according to the study objectives and research questions. The findings in this chapter were also arrived at by analyzing and interpreting the available data using SPSS and Microsoft Excel software. All the responses are presented in terms of frequencies, percentages and correlation matrices which are displayed in tables, graphs and charts. The statistical data from the quantitative part of the questionnaire was also supported by the qualitative data of the study from the interviews and observation. The quantitative data was analysed based on a Likert's scale of 1- (Strongly disagree) to 5-(Strongly agree scale rate).

4.2 Response Rate

The total number of respondents who constitute the sample used in this dissertation are summarised in Table 2 below.

Table 2: Showing the Response Rate

Nature of Response	**Frequency**	**Percentage**
Outsourced distributors		
Response	70	96%
Non-response	3	4%
Total	**73**	**100**
NMS Staff		
Response	19	95%
Non-response	1	5%
Total	**20**	**100**

Source: *Primary Data*

A total of ninety three (93) questionnaires were distributed to NMS staff and outsourced distributors were distributed and eighty nine (89) were returned. The response rate for the distributed questionnaires was therefore ninety five percent (95%) as shown in the Table 2 above. Darren (2002) asserts that for a study to score above 80%, it shows that the study was perfectly done meaning that all questions were perfectly understood by all the respondents from the study.

4.3 Characteristics of the respondents

The background information of the respondents was considered necessary because the ability of the respondents to give satisfactory information on the study variables may be affected by their background. This information was about the respondents' gender, age, education level, duration in current employment and level of management. The purpose of collecting background

information about the respondents was to help in establishing the sample characteristics and to be able to form appropriate opinion about the research findings.

Outsourced distributors:

Table 3: Level of Education

		Frequency	Percent	Cumulative Percent
Valid	PhD	6	8.6	8.6
	Master's Degree	28	40.0	48.6
	PGD	22	31.4	80.0
	Bachelors	4	5.7	85.7
	Certificate	10	14.3	100.0
	Total	70	100.0	

Source: *Primary Data*

The findings in Table 3 above revealed that the majority of the Outsourced distributors had attained master's degree and these accounted for 40% of the total sample; 31.4% had attained post graduate diploma's, 14.3% had obtained certificates, 8.6% had obtained PhD and 5.7% had obtained a bachelor's degree. With the above statistics, we can say that outsourced service distributors have adequate qualifications to conduct NMS operations i.e. over 85% of the respondents from outsourced service providers have attained the required education (from bachelors to PhDs).

Table 4: Duration you have worked in this organization

		Frequency	Percent	Cumulative Percent
Valid	Less Than 1 Year	17	24.3	24.3

	1-2 Years	36	51.4	75.7
	Over 2 Years	17	24.3	100.0
	Total	70	100.0	

Source: *Primary Data*

Duration respondents had worked in the organization (Table 4) was chosen as one of the characteristics so as to ascertain the respondents' experience with the institution's operations. The study results showed that 51.4% of the respondents had worked in the University for 1-2 years, 24.3% for over 2 years and above while 24.3 % had worked in NMS for less than 1 year. Overall, most of the respondents (75.7%) had worked for their respective organisations for more than 1 year.

Table 5: Duration and level of management

Duration in Organisation		**MANAGEMENT**			
		Lower level management	Middle level management	Senior level management	Total
Less Than 1 Year	Count	12	4	1	17
	% within QN3	46.2%	10.5%	16.7%	24.3%

1-2 Years	Count	8	26	2	36
	% within QN3	30.8%	68.4%	33.3%	51.4%
Over 2 Years	Count	6	8	3	17
	% within QN3	23.1%	21.1%	50.0%	24.3%
Total	Count	26	38	6	70
	% within QN3	100.0%	100.0%	100.0%	100.0%

Source: *Primary Data.*

Table 5 shows the number of years and level of management in an organisation. The Lower level management staff respondents, 46.2% had worked with the organisation for less than a year, 30.8% for 1-2 years while 23.1% worked with the organisation for 2 years and above. Middle level management, 10.5% had worked with the organisation for less than a year, 68.4 % for more than 1year but less than 2 years while 21.1% worked with the organisation for 2 years and above. The senior level management respondents, 24.3% had worked with the organisation for less than a year, 51.4 % for more than 1 year but less than 2 years while 24.3% worked with the organisation for 2 years and above. For all the management levels, majority of the respondents had two years' experience with the university.

Middle level management duration of 1-2 years accounted for 68.4% of the respondents, followed by management staff duration of over 2 years (21%). This implies that administratively, the organisation's environment is perceived by the employees as conducive while the working

conditions and terms might be that favourable, giving reason for workers to stay in the organisation for relatively longer periods. The justification for asking for duration the respondents had worked in the organization was chosen so as to find if it had an influence on the relationship between distribution and organization performance at NMS.

NMS STAFF:

Table 6: Level of Education

Level of Education		Frequency	Percent	Cumulative Percent
Valid	PhD	2	7.7	7.7
	Master's Degree	4	15.4	23.1
	PGD	4	15.4	38.5
	Bachelors	12	46.2	84.6
	Diploma	1	3.8	88.5
	Certificate	3	11.5	100.0
	Total	**26**	**100.0**	

Source: *Primary Data*

Study findings in Table 6 revealed that 46.2% of NMS staff had attained bachelor's level of education; 15.4% had obtained post graduate diplomas; 11.5% had Masters Degrees while7.7% had obtained PhDs and 3.8% had obtained bachelors level of education. From the above statistics, we can conclude that the institution has competent staff to perform its operations. These results suggest that being a public institution and having a variety of activities to perform, a certificate should be at least the minimum level of education for its staff. The justification for

asking respondents to indicate their highest level of educational attainment was to find if this had an influence on the relationship between distribution services and performance at NMS. Furthermore, it is generally perceived that educated people are in position to apply the knowledge they have acquired to bring more success to the institutions than uneducated people.

Table 7: Duration working in the NMS

Duration working in NMS		Frequency	Percent	Cumulative Percent
Valid	Less Than 1 Year	1	3.8	3.8
	1-2 Years	7	26.9	30.8
	Over 2 Years	18	69.2	100.0
	Total	26	100.0	

Source: *Primary Data*

Duration of working in the NMS was chosen as one of the respondents' characteristics so as to ascertain the respondents' experience with the NMS operations. From the study, a good number of the respondents had worked with NMS for more than 2 years (69.2%); 26.9% for one to two years, while 3.8% had worked for the NMS for less than 1 year. Overall, majority of the respondents (96.1%) had worked for the NMS for more than a year. This was crucial because it provided the researcher with informed responses about NMS operations.

Table 8: Duration and level of management for the service provider staff

Duration in Organisation	**MANAGEMENT**			Total
	Lower level management	Middle level management	Senior level management	

	Less Than 1 Year	Count	0	1	0	1
		% within QN3	.0%	10.0%	.0%	3.8%
	1-2 Years	Count	2	4	1	7
		% within QN3	16.7%	40.0%	25.0%	26.9%
	Over 2 Years	Count	10	5	3	18
		% within QN3	83.3%	50.0%	75.0%	69.2%
Total		Count	12	10	4	26
		% within QN3	100.0%	100.0%	100.0%	100.0 %

Source: *Primary Data*

From table 8 above; of the lower management respondents, 0% had worked with the organisation for less than a year, 16.7% for more than a year but less than two years while 83.3% worked with the organization for over two years. Of the middle managers, 10% had worked with the organisation for less than a year, 40% for more than a year but less than two years while 50% had over two years with the organisation. 0% of the senior managers had worked with the organisation for over two years, 25% had over two but less than a year and 75% had less than a year with the organisation. For both middle and senior management, majority of the respondents had over one year experience with the organization. This provided wealth of information based on both their experience with the organisation and position in the organisation.

4.4 Compliance of outsourced distributors on performance of NMS.

The first objective of the study was to determine the Critical success factors for compliance of outsourced distributors on performance of NMS. The findings of this objective were gathered from questionnaires from outsourced distributors and NMS staff and they show the respondents' views concerning the Critical success factors for ompliance of outsourced distributors on performance of NMS. The variable was measured using 10 items scored on five point Likert scale of 1=strongly disagree, 2= Disagree, 3=Neutral, 4=Agree, 5= strongly agree the results from the process of are displayed in table below.

Table 9: NMS Staff views on Compliance

Items	N	Stro ngly Agre e	Neut ral	Disa gree	Stro ngly	Mea	Stan dard
NMS makes sure the set Policies are properly followed by this organization	26	50% (13)	46.2% (12)	3.8% (1)	-	-	4.46	0.58
Regular compliance appraisals are done by this organization	24	38.5% (10)	34.6% (9)	11.5% (3)	7.7% (2)	-	4.13	0.95
Monitoring of the employed methodologies is regularly done	25	34.6% (9)	46.2% (12)	11.5% (3)	3.8% (1)	-	4.16	0.80
Quality checks put across by NMS are properly followed by this organization	26	30.8% (8)	50% (13)	11.5% (3)	7.7% (2)	-	4.04	0.87

Skill set of our staff is strictly monitored by NMS	26	26.9% (7)	50% (13)	19.2% (5)	3.8% (1)	-	4.00	0.80
Regular update reports are vehemently requested for by NMS	26	38.5% (10)	42.3% (11)	19.2% (5)	-	-	4.19	0.75
NMS fines distributor partners for uncalled for mistakes	26	23.1% (6)	42.3% (11)	19.2% (5)	11.5% (3)	3.8% (1)	3.69	1.09
Proper training is ensured to our staff in case of new avenues about drugs appear on the market	26	34.6% (9)	19.2% (5)	34.6% (9)	11.5% (3)	-	3.77	1.07

Source: *Primary Data*

The findings in Table 9 suggest that 96% of the respondents agreed that NMS makes sure the set policies are properly followed by this organization; and 3.8% were neutral. This confirms that the set policies are properly followed by this organization and this is a key determinant of organisational performance.

In determining whether Regular compliance appraisals are done by this organization, the study revealed that 73% of the respondents agreed (38.5% strongly agreed), 7.7% disagreed and 11.5% were not sure. The different statistics implied that as part of compliance, regular compliance appraisals are considered as a key aspect in organisational performance in NMS.

In order to find out whether, mmonitoring of the employed methodologies is regularly done; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 80.1% of the respondents were agreeable (34.6% strongly agreed) while 3.8% disagreed and 11.5% were not sure. From the statistics, it can be concluded that with improved compliance, performance rating will result into an improvement in organisational performance of NMS.

In determining whether the quality checks put across by NMS are properly followed by this organization, the study revealed that 80.8% of the respondents were agreeable (30.8% strongly agreed) while only 7.7% disagreed and 11.5% were not sure. The different statistics implied that as part of the compliance, quality checks put up by NMS are properly followed hence improving organizational performance.

To find out whether skill set of staff is strictly monitored by NMS, respondents were asked to state the degree to which they concurred with the above. To this, 76.9% of the respondents were in agreement, 3.8% disagreed, and 19.2% were not sure. The different statistics implied that as part of compliance, the skill set of staff is strictly monitored by NMS, thus improvement in organizational performance.

In order to find out whether, regular update reports are vehemently requested for by NMS, respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 80.8% of the respondents were agreeable only 19.2% were not sure. The different statistics implied that as part of compliance, regular update reports are vehemently requested for by NMS, thus improvement in organizational performance.

To find out whether NMS fines distributor partners for uncalled-for mistakes, respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 65.4% of the respondents agreed, 3.8% strongly disagreed, 11.5% disagreed, and 19.2% were not sure. These findings suggest that as part of compliance, NMS fines distributor partners for uncalled - for mistakes thus improving organizational performance.

To find out whether proper training is ensured to the staff in case of new avenues about drugs appearance on the market, 53.8% of the respondents indicated agreement, 34.6% strongly disagreed, 11.5% disagreed, and 34.6% were not sure. The different statistics implied that as part of the compliance, proper training is ensured to NMS staff in case of new avenues about drugs that may appear on the market. This in a way can contribute and improved organizational performance.

Table 10: Outsourced distributors views on compliance

Items	N	Strongl	Agree	Neutral	Disagr	Strongl	Mean	Standar
NMS makes sure the set Policies are properly followed by this organization	70	31.4 % (22)	54.3 % (38)	12.9 % (9)	1.4% (1)	-	4.1 6	.694
NMS makes sure the set regulations and procedures are properly followed by this organization	70	40% (28)	50% (35)	8.6% (6)	1.4% (1)	-	4.2 9	.684
NMS makes sure the set Policies,	70	42.9	40%	15.7	1.4%	-	4.2	.770

regulations and procedures are properly followed by this organization		% (30)	(28)	% (11)	(1)		4	
Regular compliance appraisals are done by this organization	70	32.9 % (23)	51.4 % (36)	14.3 % (10)	1.4% (1)	-	4.1 6	.715
Monitoring of the employed methodologies is regularly done	70	42.9 % (30)	50% (35)	10% (7)		-	4.2 7	.635
Quality checks put across by NMS are properly followed by this organization	70	25.7 % (18)	60% (42)	8.6% (6)	4.3% (3)	-	4.3 6	.615
Skill set of our staff is strictly monitored by NMS	69	41.4 % (29)	47.1 % (33)	8.6% (6)	1.4% (1)	-	4.0 9	.722
Regular update reports are vehemently requested for by NMS	69	38.6 % (27)	42.9 % (30)	15.7 % (11)	1.4% (1)	-	4.2 0	.759
NMS fines distributor partners for uncalled for mistakes	69	41.4 % (29)	47.1 % (33)	8.6% (6)	1.4% (1)	-	4.3 0	.692
Proper training is ensured to our	69	45.7	41.4	10%	2.8%	-	4.3	.721

staff in case of new avenues about drugs appear on the market		% (32)	% (29)	(7)			3	

Source: *Primary Data*

From the Table 10 above, the respondents were asked whether NMS makes sure the set policies are properly followed by the outsourced distributors. The results from the study revealed that, of the total respondents, 85.7% agreed (31.4% strongly agreed); 1.4 disagreed, and 12.9 % were neutral. This confirms that the outsourced distributors are compliant with NMS set policies and this is necessary in improving organizational performance.

In order to find out whether, NMS makes sure the set regulations and procedures are properly followed by outsourced distributors, respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 80.1% of the respondents agreed (34.6% strongly agreed), 3.8% disagreed, and 11.5% were not sure. This implies that with improved compliance performance rating, NMS will improve its operational mandate.

In determining whether the NMS makes sure the set policies, regulations and procedures are properly followed by outsourced distributors, the study revealed that 82.9% of the respondents agreed to this cause (42.9% strongly agreed), 1.4% disagreed, and 15.7% were not sure. The different statistics implied that as part of the compliance, the policies, set rules and regulations are strongly adhered to by logistic service providers. Responses as to whether regular compliance appraisals are done by outsourced distributors revealed that 84.3% of the respondents agreed (32.9% strongly agreed), 1.4% disagreed, and 14.3% were not sure. These findings suggest that NMS outsourced distributors conduct compliance appraisals and this contributes to better organizational performance.

In order to find out whether monitoring of employed methodologies is regularly done; respondents were asked to state the degree to which they concurred with the above. 80.1% of the respondents agreed (32.9% strongly agreed), 1.4% disagreed and 14.3% were not sure. These results suggest that monitoring is adequately done by outsourced distributors and this can lead to improved organisational performance of NMS.

In determining whether quality checks put up by NMS are properly followed by outsourced distributors, 85.7% of the respondents agreed (25.7% strongly agreed) , 4.3% disagreed, and 8.6% were not sure. As part of the compliance, the quality checks put across by NMS are properly adhered to and this could lead to improved organizational performance.

In order to find out whether skills set of outsourced distributors are strictly monitored by NMS, respondents were asked to state the degree to which they concurred with the above, to which88.5% agreed, 1.4% disagreed, and 8.6% were not sure. These findings imply that as part of the compliance, skills set of outsourced distributors is strictly monitored by NMS, thus improvement in organizational performance.

In order to find out whether, rregular update reports are vehemently requested for by NMS, respondents were asked to state the degree to which they concurred with the above. 81.5% of the respondents agreed, 38.6% strongly disagreed, 1.4% disagreed and 15.7% were not sure. The findings suggest that regular update reports form outsourced distributors can increase compliance and organisational performance of NMS.

In order to find out whether NMS fines distributor partners for uncalled-for mistakes, respondents were asked to state the degree to which they concurred with the above. In this

regard, 88.5% of the respondents agreed, 1.4% disagreed and 8.6% were not sure. These findings suggest that fining for uncalled-for mistakes could lead to improvement in organizational performance.

In order to find out whether, proper training is ensured to outsourced distribution staff in case of new avenues about drugs appearance on the market, respondents were asked to state the degree to which they concurred with the above; 87.1% of the respondents agreed (agree and strongly agree), 10% were neutral, and 2.6% strongly disagreed. Thus as part of compliance, proper training is ensured to outsourced distributors in case of new avenues about drugs appear on the market, thus improving organizational performance by NMS.

To test the research hypothesis "Compliance of outsourced distributors positively contributes to the performance of NMS"; the Pearson product Moment Correlation coefficient was done. The results are shown in table 11 below.

Table 11: Relationship between Compliance of outsourced distributors and performance of NMS

Correlations			
		Compliance	Performance
Compliance	Pearson Correlation	1	.551**
	Sig. (2-tailed)		.006
	N	89	89
Performance	Pearson Correlation	.551**	1

	Sig. (2-tailed)	.006	
	N	89	89
**. Correlation is significant at the 0.01 level (2-tailed).			

From Table 11, there is a moderately strong and statistically significant correlation between compliance by outsourced distributors and organisational performance of NMS (r=.551; p<=0.006<0.05). The study results therefore validated the hypothesis there is a significant relationship between Compliance of outsourced distributors and performance of NMS.

The study noted that NMS was keen with developing effective compliance mechanisms for outsourced distributors. In fact, in an interview with one of the distribution officers, he mentioned that: *we follow it up and it's something we communicate clearly, precisely and concisely to our stakeholders the outsourced distributors to avoid what has happened in the past"*

The results suggest that for any institution to improve organization performance, it should make sure that compliance is adhered to by service providers.

4.3.1Factor analysis

The researcher used a factor analytical approach whose results are summarised in Table below: Our survey involved an analysis of ten CSFs under compliance, 10 under infrastructure and 7 under organizational culture CSFs that would support NMS Performance. Each of these factors had a KMO of > 5. Kaiser (1974) recommends accepting values greater than 0.5 as acceptable (values below this should lead you to either collect more data or rethink which variables to include). Furthermore, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are

good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson and Sofroniou, 1999, pp.224-225).

Table 12 KMO and Bartlett's Test

		Compliance	Infrastructure	Organisational culture
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.754	.622	.559
Bartlett's Test of Sphericity	Approx. Chi-Square	81.852	99.957	
	df	28	45	
	Sig.	.000	.000	

Compliance and performance

Table 13 Rotated Component Matrix[a]

	Component		
	1	2	3
Regular update reports are vehemently requested for by NMS	.766		
NMS fines distributor partners for uncalled for mistakes	.725		
Proper training is ensured to our staff in case of new avenues about drugs appear on the market	.697		
Skill set of our staff is strictly monitored by NMS	.675		.426
Policies, regulations and procedures are properly followed by this organization		.750	
setting of regulations and following procedures a is critical in outsourcing delivery and improving NMS performance		.733	
Set Policies are properly followed by this organization		.719	
Monitoring of the employed methodologies is regularly done is critical in outsourcing delivery and improving NMS performance			.753

Quality checks put across by NMS are properly followed by this organization			.717
Regular compliance appraisals done by this organization is critical in outsourcing delivery and improving NMS performance		.490	.670

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

This component loaded 10 items loaded on three principle components. A ranking order of the 11 items suggests that the most CSFs that NMS should consider taking a mark >.7 regular are; updates requested by NMS, monitoring of employed methodologies; setting policies and regulations and strictly adhered to; organization fines distributors for uncalled for mistakes and monitoring quality checks.

4.4 internal infrastructure on performance of NMS

The second objective of the study was to determine the Critical success factors for outsourced distributors' internal infrastructure on performance of NMS. The findings of this objective were gathered from questionnaires from outsourced distributors and NMS staff. The Critical success factors for outsourced distributors' internal infrastructure on performance of NMS was measured using 10 items scored on five point Likert scale of 1=strongly disagree, 2= Disagree, 3=Neutral, 4=Agree, 5= strongly agree the results from the process of are displayed in table below.

Table 14: NMS Staff views on internal infrastructure

	N	Agree	Agree	Neutral	Disagree	Disagree	Mean	deviation
This organization has a well capable order management system	26	15.4 % (4)	61.5 % (16)	11.5% (3)	11.5 % (3)		3.81	.849
This organization has a well-equipped fleet to handle daily operations and emergencies	26	34.6 % (9)	46.2 % (12)	7.7% (2)	11.5 % (3)		4.04	.958
This organization has a capable fleet management system	25	42.3 % (11)	38.5 % (10)	3.8% (1)	11.5 % (3)		4.16	.987
This organization has well equipped storage facilities	25	26.9 % (7)	19.2 % (5)	30.8% (8)	19.2 % (5)		3.56	1.121
The expertise and skill set of our staff is reliable and	26	34.6 %	46.2 %	15.4% (4)	3.8% (1)		4.12	.816

seasonable		(9)	(12)					
This organization is equipped with modern technology to track and trace goods in transit	26	30.8 % (8)	23.1 % (6)	26.9% (7)	11.5 % (3)	7.7% (2)	3.58	1.27 0
Regular upgrade training to our staff on new drug handling techniques is done	26	11.5 % (3)	38.5 % (10)	30.8% (8)	15.4 % (4)	3.8% (1)	3.38	1.02 3
This organization 's infrastructure is safe and tested over time	25	15.4 % (4)	46.2 % (12)	26.9% (7)	7.7% (2)		3.72	.843

Source: *Primary Data*

The results presented in Table 14 above suggest that 76.9% of the respondents agreed (with 15.4 strongly agreed) that outsourced distributors had a well capable order management system; 11.5% remained neutral and 11.5% disagreed. These findings suggest that NMS has a system which can track, manage, and update all its field operations. This is something worthy and it enhances organisational performance of NMS. This was further supported in the interviews as one of the respondents said: "*NMS management has a well capable order management system which assists us to track, manage and update all our weekly monthly reports which has transpired in the field operations"*

In determining whether NMS had a well-equipped fleet to handle daily operations and emergencies, the study revealed that 80.8% of the respondents were in agreement, (34.6% strongly agreed); 11.5% disagreed, and 7.7% were neutral. These results suggest that NMS minds and takes care of its fleet in the day to day operations. This is a key aspect as it enables the institution to achieve its organisational objectives hence an improvement in organisational performance. This was further supported in the interviews as one of the respondents said:

NMS management ensures that before any employee goes on daily operations and emergencies all their fleet cars and motor cycles should be well fuelled and their per diem is well paid to them in respect to the journey and field operation to be carried out.

In order to find out whether, the organization has a capable fleet management system; respondents were asked to state the extent to which they assented with the above. Of the total respondents, 80.8% of the respondents were in approval that the organisation has a capable fleet management system (42.3% strongly agreed); 11.5% disagreed and 3.8% were Neutral.

In determining whether the organization has well equipped storage facilities, the study revealed that46.1% of the respondents indicated agreement, 26.9% strongly agreed while only 19.2% disagreed and 30.8% were not certain. The different statistics implied that as part of performance of NMS, storage facilities are vital, given the work NMS is pertained to deliver and this is key if NMS is to continue improving on its mandate.

In order to find out whether, the expertise and skill set of our staff is reliable and seasonable; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 80.8% of the respondents were agreeable (34.6% strongly agreed) while 3.8% disagreed (15.4% strongly disagreed).

The different statistics implied that as part of performance of NMS, the expertise and skill set of NMS staff is reliable and seasonable, an essential aspect, given the work NMS is mandated to deliver. Therefore, for NMS to keep delivering according to its mandate there is need to pay attention to the expertise and skills set of their staff

In determining whether the organization is equipped with modern technology to track and trace goods in transit, the study revealed that; of the total respondents, 53.9% of the respondents were agreeable (30.8% strongly agreed) while only 19.2% disagreed and 26.9% were not sure. The different statistics implied that as part of performance of NMS, modern technology to track and trace goods in transit is needed for improvement of organizational performance.

In order to find out whether, regular upgrade training to our staff on new drug handling techniques is done, respondents were asked to state the degree to which they concurred with the above. 50% of the respondents agreed (11.5% strongly agreed), 3.8% disagreed (15.4% strongly disagreed). These results indicate that regular upgrade training of staff on new drug handling techniques is key to NMS operations and would improve organizational performance.

In order to find out whether, the organization's infrastructure is safe and tested over time; respondents were asked to state the degree to which they concurred with the above. 61.6% of the respondents agreed (15.4% strongly agreed), and 26.9% disagreed (7.7% strongly disagreed). These results suggest that better internal infrastructure is key to improved performance of NMS.

Table 15: Outsourced distributors views on internal infrastructure

	N	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	deviation
This organization has a well capable order management system	70	51.4% (36)	45.7% (32)	1.4% (1)	1.4% (1)	-	4.47	.607
This organization has a well-equipped fleet to handle daily operations and emergencies	70	52.9% (37)	42.9% (30)	4.3% (3)	-	-	4.49	.583
This organization has a capable	7	48.6	48.6	1.4%	1.4	-	4.44	.605

fleet management system	0	% (34)	% (34)	(1)	% (1)			
This organization has well equipped storage facilities	70	62.9 % (44)	37.1 % (26)		-	-	4.63	.487
The expertise and skill set of our staff is reliable and seasonable	70	55.7 % (39)	40% (28)	4.3% (3)	-	-	4.51	.583
This organization is equipped with modern technology to track and trace goods in transit	70	62.9 % (44)	32.9 % (23)	4.3% (3)	-	-	4.59	.577
Regular upgrade training to our staff on new drug handling techniques is done	70	52.9 % (37)	35.7 % (25)	11.4 % (8)	-	-	4.41	.691
This organization 's infrastructure is safe and tested over time	70	67.1 % (47)	25.7 % (18)	7.1% (5)	-	-	4.60	.623

Source: *Primary Data*

In Table 15, respondents were asked whether outsourced distributors had a well capable order management system. The results from the study revealed that 97.1% of the respondents indicated agreement to the statement, (51.4% strongly agreed); 1.4% disagreed and 1.4% were noncommittal. These findings suggest that outsourced distributors should have a well capable order management system as this is crucial to the performance of NMS.

In determining whether this organization has a well-equipped fleet to handle daily operations and emergencies, the study revealed that 95.8% of the respondents were in agreement (52.9% strongly agreed); 4.3% disagreed and 42.9% were neutral. Thus, having a well-equipped fleet is

essential in enhancing the effectiveness of operations of outsourced distributors and performance of NMS.

In order to find out whether, the organization has a capable fleet management system; respondents were asked to state the extent to which they assented with the above, with 97.2% of them indicating approval (48.6% strongly agreed); 1.4% disagreed and 1.4% remained neutral. These results suggest that fleet management is a key factor in determining the capacity of outsourced distributors and performance of NMS.

In determining whether outsourced distributors have well equipped storage facilities, the study revealed that all respondents (100%) agreed (62.9% strongly agreed) while no one disagreed. Thus, having well equipped storage facilities by service providers is necessary if NMS is to continue improving on its mandate.

In order to find out whether, the expertise and skill set of our staff is reliable and seasonable; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 95.7% of the respondents were agreeable (55.7% strongly agreed) while 4.3% disagreed.

The different statistics implied that as part of performance of NMS, the expertise and skill set of our staff is reliable and seasonable are key given the work NMS is pertained to deliver and this is key if NMS is to continue improving on its mandate.

In determining whether the organization is equipped with modern technology to track and trace goods in transit, the study revealed that; of the total respondents, 95.8% of the respondents were agreeable (62.9% strongly agreed) while 4.3% neutral The different statistics implied that as part

of performance of NMS, modern technology to track and trace goods in transit are key given the work NMS is pertained to deliver and this is key if NMS is to continue improving on its mandate.

In order to find out whether, regular upgrade training of staff on new drug handling techniques is done; respondents were asked to state the degree to which they concurred with the above. 88.6% of the respondents agreed (52.9% strongly agreed) while 11.4% remained neutral. Thus, regular upgrade training of staff on new drug handling techniques is key given the work NMS is pertained to deliver.

In order to find out whether the organization's infrastructure is safe and tested over time; respondents were asked to state the degree to which they concurred with the above. In this respect, 92.8% agreed (67.1% strongly agreed) and 7.1% remained noncommittal. These findings suggest that as part of performance of NMS, the infrastructure of outsourced partners should be safe and tested over time to help NMS achieve its mandate.

Table 16: Relationship between infrastructure of outsourced distributors and performance of NMS

Correlations		Infra	PERFO
Infra	Pearson Correlation	1	.502*
	Sig. (2-tailed)		.012

	N	89	89
PERFO	Pearson Correlation	.502*	1
	Sig. (2-tailed)	.012	
	N	89	89
*. Correlation is significant at the 0.05 level (2-tailed).			

From the table 16, above it is indicated that there is a moderate and statistically significant positive correlation between infrastructure of outsourced distributors and performance of NMS. (r =.502, P<.0.012). The study therefore validated the hypothesis there is a significant positive relationship between infrastructure of outsourced distributors and performance of NMS. The study noted that NMS is very strict on infrastructure of outsourced distributors. As noted from the interview with the distribution officer, he mentioned that;

> This one area where we really score high when contracting our partners this is because we have a national mandate of distributing drugs medicines to all the citizens of this country and at times we move very expensive and sensitive drugs a case in point drugs for immunization so we do not joke in some matters.

4.4.1 **Infrastructure and performance of NMS**

Table 17: Rotated Component Matrix[a]

	Component	
	1	2

Regular upgrade training to our staff on new drug handling techniques is critical in outsourcing delivery and improving NMS performance	.925	
A well equipped storage facilities is critical in outsourcing delivery and improving NMS performance	.802	
A well-equipped fleet to handle daily operations and emergencies is an important factor	.624	.577
The organization ‘s infrastructure is safe and tested over time is critical in outsourcing delivery and improving NMS performance	.621	
The expertise and skill set of our staff is reliable and seasonable and is critical in outsourcing delivery and improving NMS performance	.544	.542
A well capable order management system is critical to organisation performance		.856
A capable fleet management system is critical in outsourcing delivery and improving NMS performance	.586	.594
An equipped modern technology to track and trace goods in transit is critical in outsourcing delivery and improving NMS performance		.554

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

This component loaded 10 items loaded on two principle components. A ranking order of the 11 items suggests that the most CSFs that NMS should consider taking a mark >.7 regular training of staff on drug handling techniques, followed by A well capable order management system is critical to organisation performance and a well equipped storage facilities is critical in outsourcing delivery and improving NMS performance .

4.5 organizational culture of outsourced distributors on performance of NMS

The findings of this objective were gathered from questionnaires from outsourced distributors and NMS staff organizational culture of outsourced distributors positively contributes to the performance of NMS. Were measured using 10 items scored on five point Likert scale of 1=strongly disagree, 2= Disagree, 3=Neutral, 4=Agree, 5= strongly agree the results from the process of are displayed in table below.

Table18: NMS views on organizational culture

	N	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard deviation
Courtesy is key aspect to this organization	25	38.5 % (10)	42.3% (11)	15.4% (4)	-	-	4.24	.723
Customer service is key aspect to this organization	25	57.7 % (15)	23.1% (6)	11.5% (3)	3.8 % (1)	-	4.40	.866
Uncompromised integrity is key aspect to this organization	25	46.2 % (12)	34.6% (9)	15.4% (4)	-	-	4.32	.748
Accountability is key aspect to this organization	25	61.5 % (16)	23.1% (6)	11.5% (3)	-	-	4.52	.714
Timely oral and written feedback is key to this organization	25	46.2 % (12)	34.6% (9)	7.7% (2)	7.7 % (2)	-	4.24	.926
Accurate and complete feedback is key to this organization	25	34.6 % (9)	46.2% (12)	11.5% (3)	3.8 % (1)	-	4.16	.800
Professional competence is key aspect to this organization	25	34.6 % (9)	42.3% (11)	15.4% (4)	3.8 % (1)	-	4.12	.833
Teamwork is espoused at our organization	25	34.6 % (9)	46.2% (12)	15.4% (4)	-	-	4.20	.707
Creativity is espoused at our organization	25	19.2 % (5)	42.3% (11)	26.9% (7)	7.7 % (2)	-	3.76	.879
Empathy is espoused at our organization	24	26.9	38.5%	23.1%	3.8	-	3.9	.85

		% (7)	(10)	(6)	% (1)		6	9

Source: *Primary Data*

Respondents were asked whether courtesy is a key aspect NMS. The results from the study revealed that, 80.8% of the respondents were in agreement (38.5% strongly agreed); and 15.4% were neutral. These results suggest that courtesy is important to NMS and hence, it could affect organizational performance.

In determining whether customer service is key aspect to NMS, the study revealed that 80.8% of the respondents agreed (57.7% strongly agreed); 3.8% disagreed and 11.5% remained neutral.

To find out whether, uncompromised integrity is key aspect to NMS; respondents were asked to state the extent to which they assented with the above. 80.8% of the respondents were in agreement (46.2% strongly agreed); and 15.4% were neutral. These findings suggest that integrity is a key aspect which should be upheld by NMS to deliver on its mandate.

In determining whether accountability is a key aspect to in NMS, the study revealed that 84.6% of the respondents agreed (61.5% strongly agreed) and 11.5% remained neutral. These findings imply that accountability should be upheld by NMS in its operations.

To find out whether, timely oral and written feedback is key to NMS; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 80.8% of the respondents were agreeable (46.2% strongly agreed), 7.7% remained neutral, and 7.7% disagreed. These results point to the fact that timely oral and written feedback is vital if NMS is to continue improving on its mandate. In determining whether accurate and complete feedback is key to this organization, the results suggest that 80.8% of the respondents agreed (34.6%

strongly agreed), 11.5% remained neutral, and 3.8% disagreed. Thus, accurate and complete feedback is key to this organization is key if NMS is to continue improving on its mandate.

In order to find out whether, professional competence is a key aspect to this organization; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 76.9% of the respondents were agreeable (34.6% strongly agreed) while 15.4% neutral and 3.8% disagreed.

The descriptive statistics results implied that as part of performance of NMS, professional competence is considered as an important aspect to this organization and therefore needs to be attended to if NMS is to continue improving on its mandate. Concerning whether teamwork is espoused at NMS; respondents were asked to state the degree to which they concurred with the above, to which 80.8% of the respondents were agreeable (34.6% strongly agreed) while 15.4% were neutral. The different statistics implied that as part of performance of NMS, teamwork is espoused at our organization is key if NMS is to continue improving on its mandate.

In determining whether creativity is espoused at NMS, the study revealed that 62.4% of the respondents agreed to this (19.2% strongly agreed), 7.7% disagreed, and 26.9% remained neutral. In line with the results, it is evident that creativity is a key ingredient for improved performance at NMS.

In order to find out whether, empathy is espoused at our organization; respondents were asked to state the degree to which they concurred with the above. 65.4% of the respondents were agreeable (26.9% strongly agreed) while 23.1% neutral and 3.8% disagreed. Empathy could therefore be a key factor in improving organisational performance at NMS.

Table 19: Outsourced distributors views on organizational culture

	N	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard deviation
Courtesy is key aspect to this organization	69	38.6% (27)	45.7% (32)	12.9% (9)	1.4% (1)		4.23	.731
Customer service is key aspect to this organization	70	72.9% (51)	18.6% (13)	8.6% (6)			4.64	.638
Uncompromised integrity is key aspect to this organization	69	44.3% (31)	40% (28)	12.9% (9)	1.4% (1)		4.29	.750
Accountability is key aspect to this organization	69	54.3% (38)	38.6% (27)	5.7% (4)	-		4.49	.609
Timely oral and written feedback is key to this organization	70	60% (42)	35.7% (25)	4.3% (3)	-		4.56	.581
Accurate and complete feedback is	7	60%	40%		-		4.6	.49

key to this organization	0	(42)	(28)				0	3
Professional competence is key aspect to this organization	69	55.7% (39)	40% (28)	1.4% (1)	1.4% (1)		4.52	.609
Teamwork is espoused at our organization	70	61.4% (43)	32.9% (23)	4.3% (3)	1.4% (1)		4.54	.652
Creativity is espoused at our organization	69	54.3% (38)	37.1% (26)	7.1% (5)	-		4.48	.633
Empathy is espoused at our organization	69	54.3% (38)	35.7% (25)	8.6% (6)			4.46	.655

Source: *Primary Data*

In Table 19, the respondents were asked to indicate the extent to which they agreed or disagreed in respect to whether courtesy is key to outsourced distributors operations. To this, 84.3% of the respondents were in agreement (38.6% strongly agreed); and 12.9% were neutral. The different statistics implied that as part of performance of NMS, courtesy is important in NMS deliverables.

In determining whether customer service is key aspect to logistics providers, the study revealed 91.5% of the respondents agreed (72.9% strongly agreed); and 18.6% were neutral. Thus, customer service is important for outsourced distributors operations and NMS performance.

To find out whether uncompromised integrity is a key aspect, respondents were asked to state the extent to which they assented with the above. Results showed that 84.3% of the respondents agreed that uncompromised integrity is key aspect to this organization (44.3% strongly agreed);

and 12.9% were neutral. Thus, integrity is a key attribute which should be upheld by NMS to deliver on its mandate.

In determining whether Accountability is key aspect to this organization, the study revealed that; of the total respondents, 92.9% of the respondents were agreeable (54.3% strongly agreed) while and 5.7% were Neutral. Therefore, accountability key if NMS is to continue improving on its mandate.

In order to find out whether, timely oral and written feedback is crucial to this organization; respondents were asked to state the degree to which they concurred with the above. Of the total respondents, 95.7% of the respondents were agreeable (60% strongly agreed) while 4.3% neutral.

The different statistics implied that as part of performance of NMS, timely oral and written feedback can improve organisation performance.

In determining whether accurate and complete feedback is important, all respondents (100%) agreed (60% strongly agreed). The different statistics implied that as part of performance of NMS, accurate and complete feedback is a key aspect concerning organizational performance, and if NMS is to continue improving on its mandate, it is important that the organization considers availing complete and accurate feedback to the stakeholders.

In order to find out whether, professional competence is key aspect to this organization; respondents were asked to state the degree to which they concurred with the above. 95.7% of the respondents agreed (55.7% strongly agreed), 1.4% neutral and 1.4% disagreed. Thus, professional competence is vital for outsourced distributors and performance of NMS.

In order to find out whether teamwork is espoused at NMS, respondents were asked to state the degree to which they concurred with the above. Results showed that 94.3% of the respondents agreed (61.4% strongly agreed) while 4.3% were noncommittal. The finding served to show that teamwork is a necessary ingredient to improving organizational performance.

In determining whether creativity is espoused at our organization, 91.4% of the respondents agreed (54.3% strongly agreed) and 7.1% remained neutral. Thus, creativity of staff is important for outsourced distributors and performance of NMS.

In order to find out whether, empathy is espoused, respondents were asked to state the degree to which they concurred with the above. 90% of the respondents agreed (54.3% strongly agreed) while 8.6% remained neutral. This implies that empathy is key to operations of outsourced distributors and performance of NMS.

Table 20: Relationship between organizational culture of outsourced distributors and performance of NMS

Correlations

		Organization culture	Performance
Organization culture	Pearson Correlation	1	.619**
	Sig. (2-tailed)		.001
	N	89	89
Performance	Pearson Correlation	.619**	1
	Sig. (2-tailed)	.001	
	N	89	89
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: *Primary data*

From the table 19, above it is indicated that the correlation between organization culture and performance is strong, positive and statistically significant (r=0.619**; p=0.001<0.05). This implied that organizational culture is positively correlated with organization performance, to the effect that if there is any alteration in the culture of NMS, there is a possibility that performance will also be altered, positively or negatively. If the culture is positively improved, then organizational performance would also be boosted. In addition, the computed correlation is statistically significant at the 1% and 5% level (p-value of 0.001). These findings validated the hypothesis stated earlier that organizational culture of outsourced distributors affect the performance of NMS.

4.5.1 **Organisation Culture and performance of NMS**

Table 21: Rotated Component Matrixa

	Component			
	1	2	3	4
Customer service is key aspect to this organization	.773			
Uncompromised integrity is key aspect to this organization	.771			
Courtesy must be a key aspect to this organization	.693			
Accountability is key aspect to this organization		.847		
Timely oral and written feedback is key to this organization		.714		
Professional competence is key aspect to this organization			.706	
Accurate and complete feedback is key to this organization			.699	
Teamwork is espoused at our organization			.514	
Empathy is espoused at our organization				.865
Creativity is espoused at our organization				.738

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

This component loaded 10 items loaded onto four principle components. A ranking order of the items suggests that the most CSFs that NMS should consider taking a mark >.7 are accountability and uncompromised integrity, customer service, creativity and empathy, timely oral and written feedback and professional competence.

Table 12: Summary of correlations

Correlations					
		Compliance	Internal infrastructure	organizational culture	Performance
Compliance	Pearson Correlation	1	.892**	.735**	.551**
	Sig. (2-tailed)		.000	.000	.006
	N	89	89	89	89
Internal infrastructure	Pearson Correlation	.892**	1	.760**	.502*
	Sig. (2-tailed)	.000		.000	.012
	N	89	89	89	89
organizational culture	Pearson Correlation	.735**	.760**	1	.619**
	Sig. (2-tailed)	.000	.000		.001
	N	89	89	89	89
Performance	Pearson Correlation	.551**	.502*	.619**	1
	Sig. (2-tailed)	.006	.012	.001	
	N	89	89	89	89

Correlations					
		Compliance	Internal infrastructure	organizational culture	Performance
Compliance	Pearson Correlation	1	.892**	.735**	.551**
	Sig. (2-tailed)		.000	.000	.006
	N	89	89	89	89
Internal infrastructure	Pearson Correlation	.892**	1	.760**	.502*
	Sig. (2-tailed)	.000		.000	.012
	N	89	89	89	89
organizational culture	Pearson Correlation	.735**	.760**	1	.619**
	Sig. (2-tailed)	.000	.000		.001
	N	89	89	89	89
Performance	Pearson Correlation	.551**	.502*	.619**	1
	Sig. (2-tailed)	.006	.012	.001	
	N	89	89	89	89
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).					

Source: *Primary data*

In summary, Table 21 suggests that compliance is very strongly correlated to internal infrastructure and strongly correlated to performance. The results show that compliance, internal infrastructure and organizational culture affect the performance of NMS. The correlation is statistically significant at 0.01 or 1% level of confidence. Similarly, internal infrastructure is

moderately positively correlated to performance but strongly positively correlated organizational culture. The correlation is statistically significant at the 1% and 5% level. Further, organizational culture is strongly positively correlated to performance and this correlation is statistically correlated at the 1% level. The correlation coefficient is highest for organizational culture indicating that management should prioritize this if NMS is to achieve high levels of performance.

Therefore, for NMS to perform holistically, compliance and internal infrastructure should be promoted so as to improve organizational culture which is the variable that is highly correlated to performance of NMS.

CHAPTER FIVE

SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the recommendations based on the findings of the study and the concluding remarks. The main objectives of the study were to determine the Critical success factors outsourced distributors, outsourced distributors' internal infrastructure, and organizational culture of outsourced distributors on performance of NMS.

5.2 Summary of Findings

The study revealed a number of findings. These findings are summarised below.

5.2.1 Compliance of outsourced distributors and performance of NMS

This study has shown that compliance is strongly correlated to organisational culture and performance. NMS makes sure the set policies are properly followed, that regular compliance appraisals are prepared. The scores from respondents on these variables indicate that compliance of outsourced distributors is essential in organisation performance and NMS should implement measures that increase compliance to achieve high levels of organisational performance.

In addition, the survey results revealed that skill set of NMS staff and outsourced distributors is strictly monitored to improve organisational performance. Besides, fining of outsourced distributors for uncalled for mistakes, and proper training of staff in case of new avenues of

drugs appearance on the market were found to be important factors for increasing organisational performance of NMS.

5.2.2 Outsourced distributors' internal infrastructure and performance of NMS

The correlation results revealed that internal infrastructure of outsourced distributors is positively and strongly correlated to organisational culture and performance of NMS. In addition, a well capable management system, well equipped and managed fleet to handle emergencies, and well equipped storage facilities are key factors for increasing organisation performance of outsourced distributors and the performance of NMS. Further, the study has demonstrated that if the expertise and skill set of staff is reliable and seasonable, the outsourced organization is equipped with modern technology to track and trace goods in transit, and regular upgrade training is provided to staff on new drug handling techniques, and the organization's infrastructure is safe and tested over time, organizational performance of NMS would be greatly enhanced.

5.2.3 Organizational culture of outsourced distributors and performance of NMS

This study has revealed that organisational culture (measured by customer service, uncompromised integrity, accountability, timely oral and written feedback, professional competence, teamwork, and creativity) is a strong candidate for increasing organisational performance.

5.3 Discussion of Findings

5.3.1 Compliance of outsourced distributors and performance of NMS

The study results revealed the existence of a positive and significant relationship between compliance of outsourced distributors and performance of NMS ($r=.551$, $P<.0.006$). In addition,

studies have shown that compliance enhances the performance of organizations (Jorion, 1997; Wideman, 1992; and Hiliman *et al*; 2005). It is the view of the researcher that, once compliance is done by institutions corporations, projects and programs, institutions will not move away from the targeted goals. A clear compliance strategy protects the company from associated uncertainty and damages; it turns uncertain events into certain outcomes and promises which in turn lead to improved performance.

Further, Cross (1995) observes that good outsourcing decisions can result in lowered costs and competitive advantage, whereas poorly made outsourcing decisions can lead to a variety of problems, such as increased costs, disrupted service and even business failure.

5.3.2 Outsourced distributors' internal infrastructure and performance of NMS

The results indicated that there is a significant relationship between infrastructure of outsourced distributors and performance of NMS. (r=.502, P<.0.012). The study therefore validated the hypothesis there is a significant relationship between infrastructure of outsourced distributors and performance of NMS. This finding is supported by Hillman (2005) who argues that proper infrastructure gives the company the value in the visioning and tooling to plan on budget at the desired quality. Management of a company's distribution infrastructure and applications is often done from a remote location, usually in the service provider's data center. Some choose local facilities, while others elect to outsource offshore. In the typical arrangement, the contractor takes a number of proactive measures and remedial actions to ensure that all of the client's distribution assets will always be available to its customers. For most companies, this availability applies to more than just servers (Bradford, 2013). Further Kerzner (1998) argues that infrastructure helps the organization to avoid huge losses while Wideman (1992) suggest that infrastructure development should be a continuous process used in all phases of the project.

Infrastructure should therefore be established as a continuing interactive function throughout the project life cycle.

In addition, other researchers argue that competitive business environment, coupled with a volatile economic climate, demands that organizations should invest time, talent, and financial resources on core competencies and activities that differentiate their business from the competition. Even if yours is a technology-centric organization, the management and support of your IT infrastructure is unlikely to be a core competency or business differentiator. Rather than deploy internal resources on non-differentiating activities, Infrastructure & Operations (I&O) professionals should look to IT infrastructure outsourcing vendors to provide or manage IT infrastructure (Larry, 2008).

In addition, if an organization doesn't know where it's going, any infrastructure will get it there. Therefore the first step should be building infrastructure as the organization's goal (how it adds value) and its results (key metrics). An organization that adds value through organizational efficiency, for example, will organize its people, process and structure differently from an organization that adds value by developing innovative new technologies (Barthélemy and Geyer, 2005).

5.3.3 Organizational culture of outsourced distributors and performance of NMS

The results indicated that there is a significant relationship organizational culture of outsourced distributors and performance of NMS. ($r=.619$, $P<.0.001$). The study therefore validated the hypothesis that there is positive and significant relationship between organizational culture of outsourced distributors and performance of NMS. This finding is corroborated by Oldfield,

(1997), who states that, organizational culture must start with the understanding that organizations exist for the purpose of building human resources and vice versa. He further states that organizational culture is the process of defining and enhancing which include techniques and methods developed to build human resources. In addition, Oldfield and Santomero (1997) argue that, organizational culture eliminates risks that face entities, and in so doing, improve business survivability. Organizational culture enables building a block of approaching to offset unusual exposure, susceptibilities and vulnerabilities; such as diversification (Jorion, 1997). Organizational culture ensures that institutions are run in a manner that is consistent with market's best practices (Meyer and Allen, 1997). Hislop 2003 briefly outlines some of the existing empirical data which reflect how general attitudes and behaviors at work have been shown by different levels of organizational culture. First in relation to turn over, research has shown that all forms of organizational commitment are positively related to the turnover behavior of staff (Mathieu and Zajac, 1990). Secondly in terms of attendance at work, research suggests that controllable absences are linked to levels of affective organizational culture , where workers with high levels of affective organizational culture are less likely to be absent , wherever possible compare with others (Mathieu and Zajac ,1990).

Other researchers argue that organization culture idea must be learned and shared in the organizations (Titiev, 2009). Pettigrew (2009), argue that cultures of organization based on cognitive systems which help to explain how employees think and make decision. He also noted the different level of culture based on the multifaceted set of beliefs, values and assumptions that determine ways organizations conduct business. According to Tichy (2002), organizational culture is known as "normative glue" which means to hold the overall organization together. The

concept of organizational culture also makes available a base for determining the differentiation that may survive in-between the organizations that are doing business in the same national culture (Schein, 2000). The challenge before managers is to cultivate an organizational culture that supports innovation.

In high-performing firms, organization culture is more associated with innovation (O'Regan *et al*., 2006). Problems of small firms in developing a quality culture are resistance to change, lack of experience in quality management, and lack of resources. Culture and cultural fit are more important in SMEs than other organizations because an SME is likely to be entirely enveloped in a culture, rather than large organizations, where several cultures may be present. It is easier to attain cultural change in SMEs than in larger organizations. However, it is probably more difficult for SMEs management to recognize the need for change (Ghobadian and Gallear, (1996). In addition, McAdam and McClelland (2002) have observed a strong correlation between the culture of continuous improvement and innovation in SMEs. Quality of culture is a key enabler in the development of innovation management and therefore in improving organizational performance.

5.4 Conclusions

5.4.1. Compliance of outsourced distributors and performance of NMS

This study has revealed that compliance helps companies to adapt and install approaches to deal with company risks and also helps to uncover scenarios where such risks could occur. In addition compliance provides a framework within which threats are managed. The study revealed that

NMS management has a substantially strong compliance strategy which enhances its performance.

5.4.2. Outsourced distributors' internal infrastructure and performance of NMS

The study findings revealed that there is a significant relationship between infrastructure of outsourced distributors and performance of NMS. Thus supporting the hypothesis that teamwork has a significant influence on the between infrastructure of outsourced distributors and performance of NMS.

5.4.3. Organisational culture and performance of NMS

The study concluded that there is a significant and correlation between organizational culture and performance of NMS. Since the correlation results showed that relationship between organizational culture and NMS performance is strong, the management has to play a crucial role to enhance culture development.

5.5 Recommendations

This study makes the following recommendations.

5.5.1 Compliance of outsourced distributors and performance of NMS

The management of NMS should focus on the environment in which it is operating by identifying all potential risks in the process and developing systematic compliance criteria, the management should adapt and install approaches to uncover Scenarios where effective compliance should occur. This will provide a framework within which threats are discovered and planned for before they occur. NMS should frequently engage information communication technology (ICT) consultants with clearly defined terms of reference (ToRs) notable among of

which should be: to systematically examine the loopholes in the technological components; map out the implications and lessons for the communication activities and design.

5.5.2 Outsourced distributors' internal infrastructure and performance of NMS

The management of NMS as a matter of urgency should decide on how to improve the internal infrastructure as this is a key area which should not be neglected. This is because no risk is too small or too large not to have an impact. In addition, NMS management should frequently engage with team building consultants and set clearly defined terms of reference (ToR) notable among of which should be: to systematically examine the loopholes in the their team work skills; map out the implications and lessons for their team work activities and design alleviations. From this research, new skills of team building should be established with new stringent features. So to say, NMS should adequately invest in team building and development. These consultants should also do topical briefings and debriefings occasionally to seat on the emerging trends of risks associated with new team building skills so that the staffs are kept abreast with new developments. This could be done by systematically establishing the team building sessions and other activities which bring together the different staff in the different departments.

Lastly, NMS management should not only be pre-occupied with compliance and infrastructure only, but also continuous learning and research on the emerging new dimensions about performance and how they can be addressed. This will give the NMS staff the scalability to respond to changing needs; evolution of new software for effective governance, communication, compliance, monitoring and reporting.

5.5.3 Organisational culture of outsourced distributors and performance of NMS

NMS should ensure that it outsources distributors with credibility and whose organizational culture and values have been tested over time. The insistence of the institutions sitting back since they have known they are doing a good job should not be taken a tool for moving ahead. Institutions should put in place employee and organization systems to help them keep track the employee growth line. This also helps the institution to easily monitor employee performance levels, thus avoiding setbacks arising from poor performance.

5.6 Limitation of the study and how they were addressed

5.6.1 Limitation of the study and future research

The study is limited by a number of factors. First and foremost, the research focused on the only government central stores and did not cover health centers'. Studies in future should extend this study to the referral and other health centres. The study was that the study only focused on only three factors and yet there are a number of factors like social norms, subjective norms, to mention but a few that could explain performance of outsourced distribution services. Future researchers can focus on looking at the other factors other than those studied.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE FOR RESPONDENTS

OUTSOURCED DISTRIBUTORS QUESTIONNAIRE

Dear respondent,

My name is Norbert Kazibwe .I am currently a student at Uganda Management Institute(UMI) pursuing a Master's Degree in Management studies specializing in Business Administration

I am doing a research study on Outsourced Distribution Services And Performance Of Organizations A case study of National Medical stores. This questionnaire is intended for academic purpose only and not any other use.

I would therefore like to assure you of the utmost confidentiality. The answer you give will not in any way be used against you.

Please take a few minutes to answer the questions below.

Thank you in advance.

A. Introductions (Demographic Factors) please tick the most suitable answer.

Background questions:

1) Gender of respondent

a) Male ☐

☐

b) Female

2) How many years have you worked in this organization?

a) Less than 1 Year

b) 1-2 Years

c) Over 2 Years

3) What level of management are you in this organization?

a) Lower level management

b) Middle level management

c) Senior level management

4) What is your highest level of education?

PhD

Master's Degree

PGD

Bachelor's Degree

Diploma

Certificate

Others (Specify)

SECTION B. COMPLIANCE

Please Circle the number in which you are in agreement regarding the following attributes under compliance

Scale	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
set Policies are properly followed by this organization is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
setting of regulations and following procedures a is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
Regular compliance appraisals done by this organization is critical in outsourcing delivery and improving NMS performance	is critical in outsourcing delivery and improving NMS performance 5	4	3	2	1
Monitoring of the employed methodologies is regularly done is critical in outsourcing delivery	5	4	3	2	1

and improving NMS performance					
Quality checks put across by NMS are properly followed by this organization is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
Skill set of our staff is strictly monitored by NMS is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
Regular update reports are vehemently requested for by NMS is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
NMS fines distributor partners for uncalled for mistakes is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
Proper training is ensured to our staff in case of new avenues about drugs appear on the market is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1

SECTION C. INFRASTRUCTURE

Please Circle the number in which you are in agreement regarding the following attributes under internal infrastructure of the distributors

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A well capable order management system is critical to organisation performance	5	4	3	2	1
Awell-equipped fleet to handle daily operations and emergencies is an important factor	5	4	3	2	1
A capable fleet management system is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
As well equipped storage facilities is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
The expertise and skill set of our staff is reliable and seasonable and is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
An equipped modern technology to track and trace goods in transit is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
Regular upgrade training to our staff on new drug handling techniques is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1
The organization ‘s infrastructure is safe and tested over time is critical in outsourcing delivery and improving NMS performance	5	4	3	2	1

D. ORGANIZATION CULTURE

Please Circle the number in which you are in agreement regarding the following attributes under organization culture of the distributors

Attribute	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Courtesy must be a key aspect to this organization	5	4	3	2	1
Customer service is key aspect to this organization	5	4	3	2	1
Uncompromised integrity is key aspect to this organization	5	4	3	2	1
Accountability is key aspect to this organization	5	4	3	2	1
Timely oral and written feedback is key to this organization	5	4	3	2	1
Accurate and complete feedback is key to this organization	5	4	3	2	1
Professional competence is key aspect to this organization	5	4	3	2	1
Teamwork is espoused at our organization	5	4	3	2	1
Creativity is espoused at our organization	5	4	3	2	1
Empathy is espoused at our organization	5	4	3	2	1

PERFROMANCE

On the scale below, rate the effect of the following attributes to the performance of NMS when out sourced distribution is ably employed

	Agree	Agree	Neutral	Disagree	Disagree
NMS must enhance Cost containment	5	4	3	2	1
It is important to manage distribution services if NMS service Quality is to improve	5	4	3	2	1
It is important to manage distribution services NMS decision turnaround time improves	5	4	3	2	1
Through well managed distribution services drug adequacy improves	5	4	3	2	1
Through well managed distribution services drug accessibility improves	5	4	3	2	1
Through well managed distribution services NMS's cycle time improves	5	4	3	2	1
Through well managed distribution services NMS's customer	5	4	3	2	1

	Agree	Agree	Neutral	Disagree	Disagree
satisfaction improves					

THE END

NMS STAFF Questionnaire

Dear respondent,

My name is Norbert Kazibwe . I am currently a student at Uganda Management Institute(UMI) pursuing a Master's Degree in Management studies specializing in Business Administration

I am doing a research study on Outsourced Distribution Services And Performance Of Organizations A case study of National Medical stores. This questionnaire is intended for academic purpose only and not any other use.

I would therefore like to assure you of the utmost confidentiality. The answer you give will not in any way be used against you.

Please take a few minutes to answer the questions below.

Thank you in advance.

B. Introductions (Demographic Factors) please tick the most suitable answer.

Background questions:

5) Gender of respondent

c) Male

d) Female

6) How many years have you worked in NMS?

d) Less than 1 Year

e) 1-2 Years

f) Over 2 Years

7) What level of management are you in NMS?

d) Lower level management

e) Middle level management

f) Senior level management

8) What is your highest level of education?

PhD

Master's Degree

PGD

Bachelor's Degree

Diploma

Certificate

Others (Specify)

SECTION B. COMPLIANCE

Please Circle the number in which you are in agreement regarding the following attributes under compliance

Scale	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
NMS makes sure the set Policies, regulations and procedures are properly followed by the distributors	5	4	3	2	1
Regular compliance appraisals are done by NMS	5	4	3	2	1
Monitoring of the methodologies employed is regularly done by NMS	5	4	3	2	1
Quality checks put across by NMS are properly followed	5	4	3	2	1
Skill set of the distributors staff is strictly followed by NMS	5	4	3	2	1
Regular update reports are vehemently requested for by NMS	5	4	3	2	1
Distributor partners are fined for uncalled for mistakes	5	4	3	2	1

Proper training is ensured to distributors in case of new avenues about drugs appear on the market	5	4	3	2	1

SECTION C. INFRASTRUCTURE

Please Circle the number in which you are in agreement regarding the following attributes under internal infrastructure of the distributors

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The distributors have a well capable order management system	5	4	3	2	1
The distributors have a well equipped fleet to handle daily operations and emergencies	5	4	3	2	1
The distributors have a capable fleet management system	5	4	3	2	1
The distributors have well equipped storage facilities	5	4	3	2	1
The expertise and skill set of the distributors is reliable and seasonable	5	4	3	2	1
The distributors are equipped with modern technology to track and trace goods in transit	5	4	3	2	1

	Agree	Agree	Neutral	Disagree	Strongly Disagree
Regular upgrade training to distributors workers on new drug handling techniques is done	5	4	3	2	1
Our distributors infrastructure is safe and tested over time	5	4	3	2	1

D. ORGANIZATION CULTURE

Please Circle the number in which you are in agreement regarding the following attributes under organization culture of the distributors

Attribute	reduce	Reduce	Neutral	Do not reduce	Strongly Do not reduce
Courtesy is key aspect to our distributor partners	5	4	3	2	1
Customer service is key aspect to our distributor partners	5	4	3	2	1
Uncompromised integrity is key aspect to our distributor partners	5	4	3	2	1
Accountability is key aspect to our distributor partners	5	4	3	2	1
Timely oral and written feedback is key to our distributor partners	5	4	3	2	1

Attribute	reduce	Reduce	Neutral	Do not reduce	Strongly Do not reduce
Accurate and complete feedback is key to our distributor partners	5	4	3	2	1
Professional competence is key aspect to our distributor partners	5	4	3	2	1
Teamwork is espoused at our distributors partners	5	4	3	2	1
Creativity is espoused at all distributors partners	5	4	3	2	1
Empathy is espoused at all distributors partners	5	4	3	2	1

PERFORMANCE

14. On the scale below, rate the effect of the following attributes to the performance of NMS when out sourced distribution is ably employed

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Through well managed distribution services NMS enhances Cost containment	5	4	3	2	1
Through well managed distribution services NMS service Quality improves	5	4	3	2	1
Through well managed distribution services NMS decision turnaround time improves	5	4	3	2	1

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Through well managed distribution services drug adequacy improves	5	4	3	2	1
Through well managed distribution services drug accessibility improves	5	4	3	2	1
Through well managed distribution services NMS's cycle time improves	5	4	3	2	1
Through well managed distribution services NMS's customer satisfaction improves	5	4	3	2	1

END

Thank you

PPENDIX 2: INTERVIEW GUIDE

OUTSOURCED DISTRIBUTORS INTERVIEW GUIDE

Dear respondent,

My name is Norbert Kazibwe. I am currently a student at Uganda Management Institute (UMI) pursuing a Masters Degree in Management studies specializing in Business Administration

I am doing a research study on Outsourced Distribution Services and Performance of Organizations A case study of National Medical Stores. This questionnaire is intended for academic purpose only and not any other use.

I would therefore like to assure you of the utmost confidentiality. The answer you give will not in any way be used against you.

Please take a few minutes to answer the questions below.

Thank you in advance.

TOPIC: OUTSOURCED DISTRIBUTION SERVICES AND PERFORMANCE OF ORGANIZATIONS

1. What is your role in this organization?

……

……

2.How many years have you worked in organization?

g) Less than 1 Year ☐

h) 1-2 Years ☐

i) Over 2 Years ☐

Part One

To determine the Critical sucess factors for succesful compliance by outsourced distributors on performance of NMS

a) How does the compliance of outsourced distributors contribute to the performance of NMS?

……

……..……

Part Two

To determine the Critical sucess factors for succesful outsourced distributor's internal infrastructure on performance of NMS

a) How does the infrastructure outsourced distributors contribute to the performance of NMS?

……

……..……

Part Three

To establish how organizational culture of outsourced distributors contributes to the performance of NMS

a) How does the organizational culture of outsourced distributors contribute to the performance of NMS?

……

……

MS INTERVIEW GUIDE

Dear respondent,

My name is Norbert Kazibwe. I am currently a student at Uganda Management Institute (UMI) pursuing a Masters Degree in Management studies specializing in Business Administration. I am doing a research study on Outsourced Distribution Services and Performance of Organizations A case study of National Medical Stores. This questionnaire is intended for academic purpose only and not any other use.

I would therefore like to assure you of the utmost confidentiality. The answer you give will not in any way be used against you.

Please take a few minutes to answer the questions below.

Thank you in advance.

Topic: Outsourced Distribution Services and Performance of Organizations

1. What is your role in the NMS?

……

……

……

2.How many years have you worked in NMS?

j) Less than 1 Year ☐

k) 1-2 Years ☐

l) Over 2 Years ☐

Part One

To determine the Critical sucess factors for succesful compliance by outsourced distributors on performance of NMS

b) How does the compliance of outsourced distributors contribute to the performance of NMS?

……

……..……

Part Two

To determine the Critical sucess factors for succesful outsourced distributor's internal infrastructure on performance of NMS

b) How does the infrastructure outsourced distributors contribute to the performance of NMS?

……
……..……

Part Three

To establish how organizational culture of outsourced distributors contributes to the performance of NMS

b) How does the organizational culture of outsourced distributors contribute to the performance of NMS?

……

……

END

Thank you

ppendix 3: Work Plan And Time Frame for the Research

TASK	**TIMING**						
	Mar'13	**Apr'13**	**May'13**	**June'13**	**Jul'13**	**Aug'13**	**Sept'13**
Proposal writing & approval							
Data Collection & cleaning							
Data Entry							
Data Processing & Analysis							

Report Presentation							

Appendix 4: Budget for Research

No	Item	Quantity	Totalcost (UGx)
1	Training and facillitation allowance of research assistants	2 @ 100,000	200,000
2	Stationary	Lumpsum	100,000
3	Photocopying data tools	Lumpsum	100,000
4	Data punching & coding	2 @ 100,000	200,000
5	Contigency	Lumpsum	200,000
	GRAND TOTAL		**800,000**

ppendix 5: Letters of Research Authorisation

UGANDA MANAGEMENT INSTITUTE

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256-75-2259722
Telefax: 256-41-4259581 /314
E-mail: admin@umi.ac.ug

Plot 44-52, Jinja Road
P.O. Box 20131
Kampala, Uganda
Website: http://www.umi.ac.ug

Your Ref:

Our Ref: **G/35** **08 July 2013**

Mr. Norbert Kazibwe
12/MMSBA/27/008

Dear Mr. Kazibwe,

FIELD RESEARCH

Following a successful defense of your proposal before a panel of Masters Defense Committee and the inclusion of suggested comments, I wish to recommend you to proceed for fieldwork.

Please note that the previous chapters 1, 2 and 3 will need to be continuously improved and updated as you progress in your research work.

Wishing you the best in the field.

Yours sincerely,

Gerald Karyeija (PhD)
AG. HEAD, HIGHER DEGREES DEPARTMENT

NATIONAL MEDICAL STORES
Internal Memo

To: General Manager Approved on 11/07/2013

Thru: Head Human Resource & Support Services

From: Norbert Kazibwe

Date: 11th July 2013.

Good
I have worked at the questionnaire attached. It is OK. For your approval
11/7/2013

RE: REQUEST FOR PERMISSION TO CARRY OUT RESEARCH FOR MASTERS IN MANAGEMENT STUDIES DEGREE.

I am a student of Uganda Management Institute (UMI), Kampala currently pursuing a Masters Degree in Management Studies specializing in Business Administration and Management. I am carrying out a Study on:

The Contribution of Outsourced Distribution Services Towards the Performance of NMS.

Attached is the letter from the Head, Higher degrees department to NMS to allow me carry out the research and also attached is the sample questionnaire that will be administered.

I confirm data to be collected shall remain specific to the research topic and will not be used for any other purpose other than completion my classification.

The purpose of this memo therefore, is to seek your approval of my request to carry out the research based on the attached documentation.

Norbert Kazibwe

Plot 64 Kira Road,
Kamwokya
P.O. box 4871
Kampala (U)
T: 0312330000
E:info@dakscouriers.com
W: www.dakscouriers.com

5th August, 2013.
Nobert Kazibwe
Uganda Management Institute
Researcher,
+256 772 467 263

Dear Sir,

RE: PERMISSION TO CARRY OUT RESEARCH FOR MASTERS IN MANAGEMENT STUDIES DEGREE

Reference is made to your request to carry out a study research on the contribution of outsourced services towards the performance of National Medical Stores in Uganda.

Your request has been approved. You have been assigned the following staff to help you out on your research.

1. **Mr. Egesa Robert – Finance Manager**
2. **Mr. Bwambale Godfrey – Accounts Assistant in charge of NMS Account**

The research information gathered should be specific to the research topic.

I wish you the best in your endeavours.

Yours truly,

DAKS COURIERS LTD.
PLOT 64, KIRA ROAD, KAMWOKYA
P.O. BOX 4871
KAMPALA, UGANDA
TEL: +256 (0) 312 330000
Date:

Arthur Tamale
HR/Admin Manager

THREEWAYS SHIPPING SERVICES [GROUP] LTD

Plot No. 87 Jinja Road, PB No. 12028, Kampala - Uganda

Tel:+256 312-320300, +256 414-258780/7 | Fax: +256 312-320306/ 414-259760 | Email:info@threewaysshipping.com

22nd July, 2013

Ref: TSS/jbb-0377-08

Norbert Kazibwe,
Uganda Management Institute (UMI)
Researcher,
+256 772 467 263

Dear Sir,

RE: PERMISSION TO CARRY OUT RESEARCH FOR MASTERS IN MANAGEMENT STUDIES DEGREE

Reference is made to your letter dated 17th July, 2013 in which you requested to carry out a study research on the contribution of outsourced distribution services towards the performance of National Medical Stores Uganda.

Your request has been approved and all the information gathered should be specific to the research topic.

All the best in your endeavors.

Yours truly,

Threeways Shipping Services (Group) Ltd.

Jeff Bihamaiso Baitwa
Managing Director