

Factors Influencing Procurement Performance in Humanitarian Relief Organization a Case of International Committee of the Red Cross in Kenya

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Abstract- Relief organizations deal with emergencies sometimes which are unpredictable. It may be difficult to plan the procurement and one may need to break some procurement regulations to deal with the emergencies and unpredictable situations. During an emergency and disasters, procurement of supplies is required. There may be over supply of the humanitarian supplies which may end up wasted once the emergency is over. The procurement chain of relief organization such as ICRC-Kenya provides emergency relief responses during disasters. Relief organization have a responsibility to fulfill their mandates without jeopardizing their relationship with such stakeholders as donors who fund such relief programs and at the core of maintaining this relations are the managers who have to come up with procurement policies aimed at streamlining these functions. It is the effects of all these efforts and functions on the performance of the procurement departments of such organizations that these study aimed at examining under the following, Organization structure, donor funding, procurement policies and information technology as the independent variables and procurement performance as the dependent variables. The research methodology used was descriptive study. The sample was purposively selected. Data was collected using Questionnaires, cleaned using Excel, coded and analyzed quantitatively using Statistical Package for Social Sciences version 21 and findings presented by frequency and percentage tables. It was established that of the independent variables (organization structure, procurement policies, donor funding and application of information technology), it was only application of information technology that significantly affected the procurement performance at ICRC-Kenya. The department resulted in increase in performance of the unit by 18.4%. it is recommended that procurement policies should be streamlined by the policy makers to ensure that they do not inhibit delivery of critical services. They should also invest in information technology especially e-procurement in their procurement departments to ensure that the procurement process are made more efficient towards aiding service delivery in such organization. To the future scholars, further studies should be carried out to unveil the nature of effects of information technology on procurement processes and how the challenges posed by the same can be overcome. The amount of wastage in Humanitarian organization

Index Terms- procurement performance, electronic procurement, emergency, disasters

I. INTRODUCTION

Relief organizations deal with emergency humanitarian issues such as supply of drugs, food aid, water and sanitation, providing shelter to the affected communities among others. Humanitarian organizations put a lot of effort into helping nations and people to recover from disasters by providing relief commodities. Responding adequately to a disaster is difficult due to its complexity and uncertainty associated with it. Flexible but efficient supply chains are creating high demand on procurement operations (Berger & Garyfalakis, 2013).

There is only an extent to which the relief needs can be met. According to Brauman (2006), errors of judgment as to relief needs particularly the fear of epidemics, are observed whenever a natural disaster occurs. Humanitarian organizations provide assistance in times of need and they are required to provide help whenever disasters occur. The procurement departments of relief organization are involved in making sure supplies are available to meet the needs of the disaster.

Climate change has contributed to increasing temperatures which in turn leads to disasters such as displacement of people from their original homes with 20 million people estimated to have been temporarily displaced by climate related disasters. The Tsunami of December 26, 2004, was among the deadliest natural disasters of the past hundred years. In minutes, it completely devastated thousands of square kilometers, destroying several cities in its wake (Brauman, 2006). When disasters like these occur, procurement is involved in providing supplies to put up new infrastructure. Natural or man-made catastrophes lead to loss of lives, shortage of food and water, damage to the existing infrastructure as well as ruptured socio-economic conditions (Akhtar, et al, 2012) and economic damages such as losses in sectors like fisheries, agriculture, livestock, tourism or microenterprises. To mitigate the negative impacts, humanitarian organizations prepare counter measures by creating infrastructure and planning relief operations in advance (Nikbakhsh & Farahani, 2011). In particular, governmental as well as non-governmental organizations (humanitarian organizations) all over the world put a lot of effort into helping nations and people to recover from disasters (Taupiac, 2001). These organizations usually provide food, water, blankets, shelters, medicines and other supplies to the affected population (Tomasini & Wassenhove, 2009).

Most of the 11,460 IDPs at Mawingo, Ol'Kalau district in Kenya fled to the neighboring Rift Valley Province in early 2008

during post-election violence that saw up to 660,000 people displaced across the country (Riley, 2015). In this situation, procurement departments of relief organizations were involved in procuring basic supplies for the people to enable them start living in the camps.

Extreme poverty has led to increase in inequalities of income and wealth plaguing most nations (as approximately half the world's population lives on less than 1% of its wealth), extreme poverty and inequality continue to leave whole communities and households in an almost irreversibly devastating state of vulnerability and need (Gelsdorf, 2010). Financial and economic crisis has increased. The world economy is now predicted to contract by 1.7%, remittances which accounted for some 2% of the major developing countries' GDP in 2007 have decreased to 1.8% in 2008 and falling by an additional 0.9% in 2010 (Gelsdorf, 2010). Private capital flows dropped by some \$700 billion compared to previous years and an additional 90 million people being pushed into poverty (Gelsdorf, 2010). The financial and economic crisis has led to unemployment, an increase in poverty, leading to a larger case load in need of humanitarian assistance (Gelsdorf, 2010). The humanitarian organizations' procurement sections procure supplies to be distributed to the needy.

Food crisis has contributed to over 1 billion people worldwide, one-sixth of the world population suffering from hunger, over 30 cases of food-related unrest having erupted around the world since 2008, 25,000 children daily suffer from malnutrition, 2 billion people currently suffering from micro-nutrient deficiencies, local food prices in most developing countries being too expensive for hundreds of millions of people, disputes over depleting land resources, and projections that by 2025 food production will not be able to increase by the necessary 50% over current levels to keep up with population growth, the food crisis will continue to threaten lives and livelihoods worldwide (Gelsdorf, 2010). Humanitarian organization must deal with procurement of food to feed the increasing number of people who do not have food to eat.

Change morbidity disease patterns, climate change will fundamentally transform the way humanity approaches global security and livelihood sustainability (Gelsdorf, 2010). Health pandemics and the discovery that infectious diseases that have been controlled historically are now demonstrating increased virulence, changing incidence, and shifting vectors of transmission, health pandemics and infectious diseases threaten to further degrade the lives of many Gelsdorf (2010). The 26th outbreak of Ebola and the first to occur in West Africa. It began in [Guinea](#) in December 2013 and then spread to [Liberia](#) and [Sierra Leone](#) (Aylward, 2014). The death toll from the Ebola outbreak in three West African countries reached 9,004, according to the World Health Organizations, at least 22,525 people were infected with the deadly virus in Sierra Leone, Liberia and Guinea. The procurement in humanitarian organizations had to be involved in procuring supplies to deal with this outbreak.

Ongoing currency fluctuations, adverse economic conditions, insurance necessities, and price spikes for commodities used in humanitarian operations – such as fuel – may strain budgets. Other risks are now appearing on

procurement's radar, including how to cope with commodity price volatility (Martindale, 2013). Supply chains may be very long due to the contracts being used and some items with short life expectancy end up expiring or arriving with very short life span remaining before reaching the beneficiary.

Procurement in the humanitarian sector basically has the same goals and intentions as in private business. As buyers, organizations want the best possible value at a reasonable price (Taupiac, 2001). In addition to that, humanitarian procurement processes try to ensure that organizations have all supplies required to meet the needs to provide adequate disaster relief (PAHO, 2001).

International Committee of the Red Cross

The International Committee of the Red Cross (ICRC) is a humanitarian institution based in [Geneva](#), Switzerland. State parties (signatories) to the four [Geneva Conventions](#) of 1949 and their Additional Protocols of 1977 ([Protocol I](#), [Protocol II](#)) and [2005](#) have given the ICRC a mandate to protect victims of international and internal [armed conflicts](#). Such victims include war wounded, [prisoners](#), [refugees](#), [civilians](#), and other [non-combatants](#). The official symbol of the ICRC is the Red Cross on white background (the inverse of the [Swiss flag](#)) with the words "comite international geneve" circling the cross.

The International Committee of the Red Cross (ICRC) is an impartial, neutral, and independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of war and internal violence and to provide them with assistance." It also directs and coordinates international [relief](#) and works to promote and strengthen [humanitarian law](#) and universal humanitarian principles.

Statement of the problem

One of the biggest hurdles to overcome in humanitarian relief supply chain is the huge uncertainty in demand and supply as well as the assessment of the needs accompanied by time pressure to supply on time. Hence humanitarian logistics is complex making the procurement field the most expensive part during disaster relief especially with about 80% of total expenditures (Wassenhove, 2006).

The total quantity of purchased relief items is rising, which makes disaster relief procurement important. The main reason for this rise is that humanitarian organizations often prepare for disasters through pre-stocking of critical relief supplies in strategic locations around the world. Although this method increases the ability to respond to a disaster quickly, it also comes with immense costs (Balcik, 2008). During emergencies and disasters, there may be over supply of the relief supplies which may end up wasted once the emergency is over like in the case of Ebola crisis, the protective equipment being used may never need to be used again once the crisis is over.

Standards and norms of the tendering processes may need to be amended as humanitarians are more frequently called to operate in increasingly 'non-traditional' emergencies or more complicated security environments, there may be a need for a new or amended set of standards, rules, codes, and norms to guide these interventions (Gelsdorf, 2010).

Low-value items are products purchased under the value of US\$1,000, and are used mostly as supportive items, consumables

or products used in ad-hoc situations. These items are locally available, with a low technical profile and a low financial on the total expenditure. The procurement process for low-value purchases is conducted in 40% of the cases through the opening of a competitive bidding exercise, which adds complexity and effort. The need to conduct a tendering process and evaluation of bids extends the lead times. Although current procurement policies do not require purchasing experts to conduct low-value procurement through competitive bidding, the exercise is undertaken because it has a more detailed traceability and control over payments. However, while these procedures ensure obtaining the best bid, the high resource commitment increases the cost of the transaction, adding a substantial cost to the final cost of the product. On the other hand, innovation to create other methods for conducting low-value procurement is limited. Existing policies and regulations often constrain procurement processes and shape the way operations are to be undertaken (Larroya, 2011).

The concept of the emergency health kit which was brought up by WHO has been adopted by many organizations and national authorities as a reliable, standardized, affordable and quickly available source of the essential medicines and medical devices (renewable and equipment) urgently needed in a disaster situation. These kits are standard and some items in the kits may not be relevant in a particular country or situation or what is really required is in short supply. What is not relevant end up being disposed which is a loss of resources. The study tried to find out the challenges facing the procurement performance in International Committee of the Red Cross –Kenya.

Objectives of the study

To establish the factors influencing procurement performance in International Committee of the Red Cross -Kenya

II. RELATED LITERATURE

Theoretical framework

1. Theory of Internal Control

A system of effective internal control is a critical component of an organization's management and a foundation for its safe and sound operation. A system of strong internal control can help to ensure that the goals and objectives of an organization will be met, that it will achieve long term targets and maintain reliable financial and managerial reporting. Such a system can also help to ensure that the organization will comply with laws and regulations as well as policies, plans, internal rules and procedures, and reduce the risk of unexpected losses and damage to the organization's reputation.

The following presentations of internal control in essence cover the same ground. In USA, the Committee of Sponsoring Organizations of the Tread way Commission (COSO) issued Internal Control - Integrated Framework, 1992, which defined internal control as a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: Effectiveness and efficiency of operations; Reliability of financial reporting; Compliance with applicable laws and regulations. The Ruttman Report in UK defined internal control as the whole system of controls, financial

and otherwise, established in order to provide reasonable assurance of effective and efficient operations; internal financial control and compliance with laws and regulations. The theory is relevant to the study because it outlines the internal control policies, procedures and rules to be followed in the procurement department.

2. Agency Theory

Agency theory is a concept that explains why behavior or decisions vary when exhibited by members of a group. Specifically, it describes the relationship between one party called the principal, that delegates work to another called the agent. It explains their differences in behavior or decisions by noting that the two parties often have different goals and, independent of their respective goals, may have different attitudes toward risk. The concept originated from the work of Adolf Augustus Berle and Gardiner Coit Means, who were discussing the issues of the agent and principle as early as 1932. Berle and Means explored the concepts of agency and their applications toward the development of large corporations. They saw how the interests of the directors and managers of a given firm differ from those of the owner of the firm, and used the concepts of agency and principal to explain the origins of those conflicts (Murtishaw & Sathaye, 2006).

Jensen and Meckling shaped the work of Berle and Means in the context of the risk-sharing research popular in the 1960s and '70s to develop agency theory as a formal concept. Jensen and Meckling formed a school of thought arguing that corporations are structured to minimize the costs of getting agents to follow the direction and interests of the principals. The theory essentially acknowledges that different parties involved in a given situation with the same given goal will have different motivations, and that these different motivations can manifest in divergent ways. It states that there will always be partial goal conflict among parties, efficiency is inseparable from effectiveness, and information will always be somewhat asymmetric between principal and agent. The theory has been successfully applied to myriad disciplines including accounting, economics, politics, finance, marketing, and sociology (Nikkinen and Sahlström, 2004). This theory is relevant to the study because all organizations have people who explain their differences in behavior or decisions by noting that the two parties often have different goals and, independent of their respective goals, may have different attitudes toward risk. Sections of organizations interact amongst themselves in exchange of key information and materials.

Empirical framework

Post-disaster reconstruction suffers bottlenecks and challenges due to the inadequacies of resource procurement. In the aftermath of the 2004 Indian Ocean Tsunami, difficulties in acquiring resources compromised donors' efforts in achieving a successful recovery. (Chang, et al, 2011)

Risks are now appearing on procurement's radar, says Mr. Timmermans, including how to cope with commodity price volatility. "For many of the processing manufacturing industries, the speed with which the commodity prices go up and down is unseen (Gocke, 2008).

Training and development is a key challenge for procurement organizations. That includes: skill development; the right recruiting and retention practices; and career paths in other functions outside of procurement (Gocke, 2008). Organization of global sourcing. That is, how to set up and how to manage global sourcing offices. That is also more in terms of processes, a linkage between the global sourcing offices and the headquarters. It's also how the global sourcing offices do work with other non-procurement functions (Gocke, 2008).

Cross-function and collaboration about how procurement work with not only engineering and quality management — which has been the nature of the procurement department for a long time already — but also with other functions like sales and marketing when it comes to requirements management? That's also with finance and controlling and with logistics and supply chain management (Gocke, 2008).

Managing spend creep and ensuring cost containment is often a challenging task. For CPOs, they need to have a strong team and capability across the end-to-end sourcing and procurement process to ensure costs are contained. Without a dedicated team to run a quality sourcing event, requirements are often not accurately captured or scrutinized and money is wasted on unnecessarily high-specification products and services. Without a dedicated team at the other end of the source to manage process and supplier adherence to contract, scope creep becomes an issue.

Finally, without the people, processes or technology to measure and track current spend, there is an 'overspend lag,' meaning that by the time anyone notices spend is going over-budget, it is too late (Clinton, 2014). Making the correct decisions regarding the leveraging of technology is crucial to delivering best-practice sourcing and procurement and the CPOs recognize this. The technology that supports procurement has moved on dramatically in recent years with spend analytics, eSourcing, Supplier & Contract Management, eWorkflow, spot buying /tail spend management, savings tracking and budget

management, to name but a few. The coupling of these collective technologies with market intelligence and data will drive greater procurement effectiveness, improved processes, better visibility, detailed audit and more accurate tracking of savings. Additionally, the CPOs recognize that technology now needs to be applied holistically, connecting their business to the supply market in a way that enables the professional sourcing process but also creates an environment where the business user can also buy and leverage suppliers in a supported fashion. The challenge faced by the CPO is finding the up-front capital to invest in these technologies and justifying the increased cost required to better enable cost reduction (Clinton, 2014).

Conceptual Framework

Miles and Huberman defined a conceptual framework as a visual or written product, one that “explains, either graphically or in narrative form, the main things to be studied -the key factors, concepts, or variables -and the presumed relationships among them”. A variable is a measurable characteristic that assumes different values among subjects.

Independent Variables are changes that occur in an experiment that are directly caused by the experimenter. It can be changed as required, and its values do not represent a problem requiring explanation in an analysis, but are taken simply as given (Dodge, 2003). A dependent variable is a variable dependent on another variable: the independent variable.

A dependent variable is what is measured in the experiment and what is affected during the experiment. The dependent variable responds to the independent variable (Everitt, 2002). Procurement performance is a function of several variables depicted in figure 2.1 below: The variables of the study will comprise one dependent variable (Procurement performance) and four independent variables (information Technology in procurement process, procurement policies, organization structure and Donor funding)

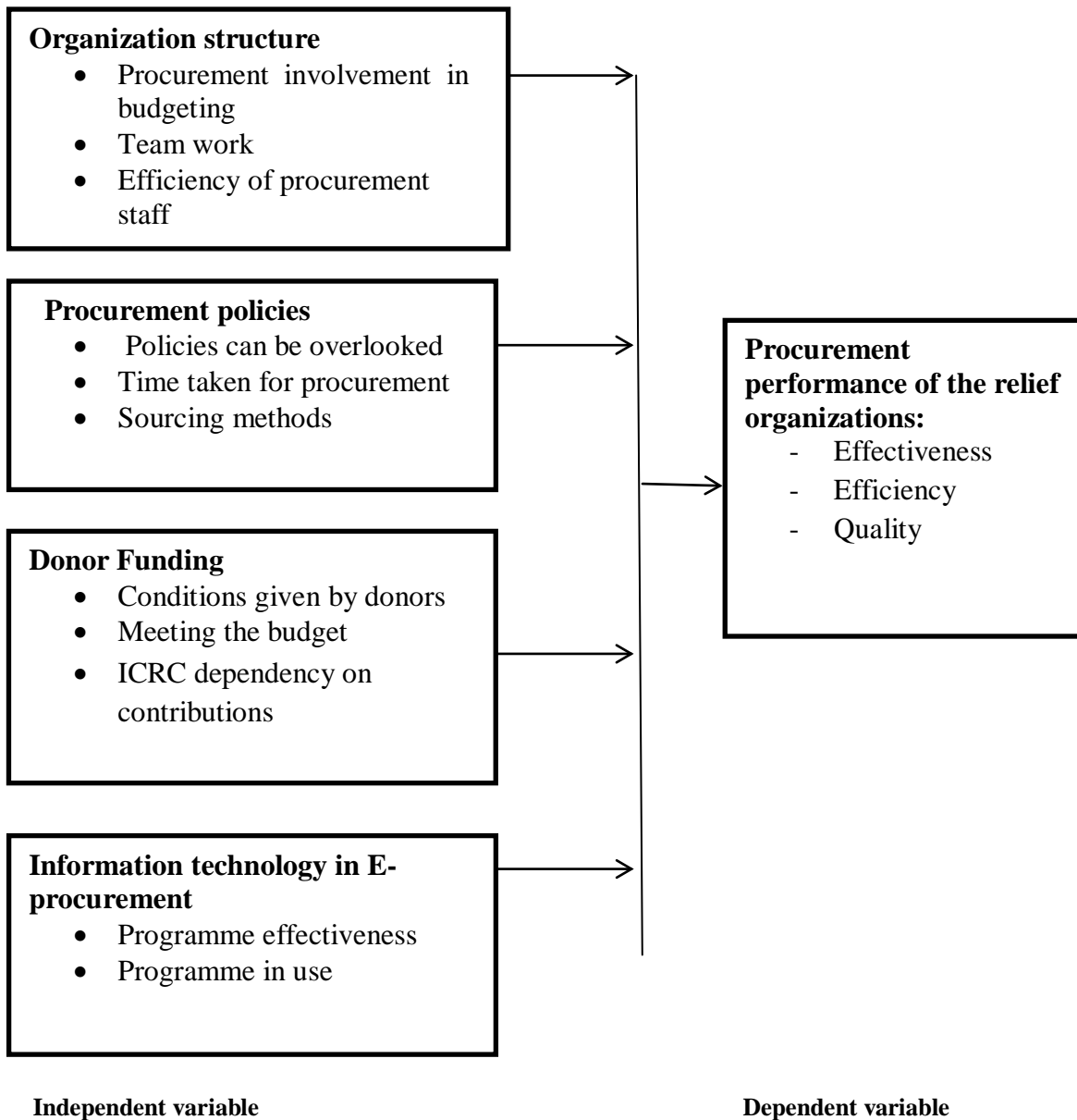


Fig 2.1 Conceptual Framework

III. REVIEW OF VARIABLES

Donor Funding

Most Humanitarian organization receives donations which may come in the form of money or supplies. The supplies donated may not necessarily be what is required at times. The donors may dictate on how the funds are to be used. A situation may arise where particular supplies are required but the funds cannot be used to procure these supplies. This is a big challenge in procurement.

Private funding from individuals, trusts and foundations, and companies and corporations is not only valued for its volume, humanitarian agencies also value the flexibility and reliability of private funds because they come with less earmarking and a longer time frame than funding from institutional or state donors. According to (Herzer &

Nunnenkamp 2012), Government grants crowd in private donations in the long run, whereas commercial revenues crowd out donations in the long run. Because of this "crowding out" effect, a government choosing to increase funding to a charity by a given amount may actually increase the charity's revenues by only a fraction of that amount. The same effect can occur in the opposite direction. If a government sees that private donations to a charity have risen, then it may reduce its support of that charity. Additionally, government funding may "crowd in private donations if governments use grants as a signal of the quality of a public good (Heutel, 2009).

Despite its growing importance, there is no systematic reporting of private funds, so it is impossible to gauge accurately

how much there is, or where and how it is spent. Until there is a shared and reliable evidence base it is impossible to accurately measure progress, or to coordinate and target resources effectively. The ability to hold all actors to account are also severely hampered (Stirk, 2014).

The IKEA Foundation is the philanthropic arm of Swedish furniture giant, IKEA. Total donations have increased year on year from €45 million in 2010 to €101 million in 2013, and it is the largest corporate donor to UNICEF, UNHCR and Save the Children.

The foundation's emergency response funding focuses on providing support following natural disasters and in post-Conflict situations provides emergency shelter for refugees and displaced people. (Stirk, 2014).

ICRC is exclusively depending on voluntary contributions albeit from a variety of sources. ICRC's appeal for 2014 amounts to 1.3 billion CHF of which 192 million CHF to headquarter function. For ICRC the funding sources and patterns in 2013 were very similar to previous years; governments provided 84.5% of all resources (plus 7.3% provided by the EU/ECHO), while, National Red Cross and Red Crescent Societies provided 3.4% and private sources accounted for 4.8%. The Top 10 donors alone contributed 77.6% of ICRC funding. This illustrates a heavy reliance on a small number of traditional humanitarian donors. In large-scale disasters, such as the Haiti earthquake in 2010, more than 120 National Societies contributed funds, human resources or goods to the Red Cross Red Crescent response. Existing local capacity through an established National Society enables the Red Cross to play a key role on the ground, and it is often the first and main local responder. According to the IFRC, the Red Cross delivered six times as much relief in response to the 2010 Haiti earthquake than all other agencies combined (Stirk, 2014).

Procurement policies

Procurement is the process of obtaining services, supplies, and equipment in conformance with applicable laws and regulations (USG 1996)—takes place locally, nationally, and internationally among a number of public, private, national, and local entities (Rao, *et al*, 2006).

Relief organizations stockpile ready-to-dispatch inventory in locations with access to disaster prone regions (Balcik & Beamon, 2008). Instantly after a disaster strikes, relief organizations conduct an initial assessment (usually within one day after occurrence). The expected quantity of supplies required to meet the relief needs of the affected population is estimated (Thomas, 2003) as well as pre-positioned supplies, already available at the organizations warehouses, are evaluated. Relief items, which need to be procured from suppliers, are determined (Balcik & Beamon, 2008).

Demand for relief supplies varies in terms of magnitude, criticality and type of required materials and is highly unpredictable (Kovács & Spens, 2007). Supplies are mainly 'pushed' to the disaster area in the response phase, whereas during the reconstruction phase the principle of 'pull' in sourcing is predominately applied. Another key point is, that the customers (receivers of aid) do not generate demand voluntarily and do not intend to 'repurchase'. Thus no 'real demand' is created, as demand is assessed through aid agencies as per Long

& Wood. Goods can be acquired differently, like in bulk or vendor stored, until needed (Russell, 2005) and procurement can consider just local or also global suppliers and vice-versa (Blecken, 2010). After a disaster struck, speed at any costs is of utmost importance, as the first 72 hours are crucial for providing relief. Goods are brought into the affected area as quickly as possible. After the first 90 to 100 days, disaster response is delivered more effectively at reasonable cost and speed. Humanitarian organizations start from then on to source relief items locally (Van Wassenhove, 2006).

Another approach of disaster response procurement is purchasing from local and regional suppliers instead of relying on long-distance donations in order to decrease transport costs and accelerate delivery (Nikbakhsh & Farahani, 2011). Nevertheless, local procurement usually faces quality problems and might lead to supply shortages. In addition, local purchasing can generate competition between organizations, which results in high prices for the relief items (PAHO, 2001). International or global procurement is primarily done to access larger quantities, get lower prices and keep consistent quality.

In contrast, delivery times are longer and transportation costs are higher by using global suppliers (Sowinski, 2003). In most cases, humanitarian organizations will have multiple suppliers for each relief effort (Falasca & Zobel, 2011). Humanitarian organizations often purchase relief items from global suppliers through competitive bidding processes (Balcik & Beamon, 2008) in order to provide equal opportunities to all firms interested. However, in cases of huge disasters, when providing goods quickly in large amounts is crucial, tendering techniques are not applied (Taupiac, 2001). In the bidding process, humanitarian organizations first identify potential suppliers, which are able to meet the item and delivery requirements.

The main objective of applying global sourcing is not only to exploit suppliers' competitive advantage, but also to profit from location benefits of different countries and global competition (Kotabe & Helsen, 2009). Global sourcing is characterized by high complexity, as firms have to overcome many barriers (Kotabe, Murray, & Mol, 2008). Murray, Wildt & Kotabe defined local sourcing in contrast is applied, when the sourcing firm and its suppliers are located in the same country. To minimize the cost/agility trade-off, many firms combine global and local sourcing concepts. Procurement policies related to time are closely linked to optimizations of inventory.

These procurement policies can be categorized as following: Stock sourcing, Demand tailored sourcing and just in time, Stock sourcing means, that a company builds up stocks, which contribute to avoid supply risks (Essig, 2000). In contrast, the next concept avoids stockpiling of goods, as demand tailored sourcing means '...both buying to current requirements and the so-called 'hand-to-mouth buying. Only the buyer tries to avoid owning stock' (Essig, 2000). A step-up of demand tailored sourcing is just-in-time. Ansari and Modarress defined this concept as '... a stockless supply through all levels of the supply chain (buyer and supplier)' (Essig, 2000). Just-in-time creates a significant cost reduction and requires close collaboration between the buyer and supplier (e.g. single sourcing) (Essig, 2000).

Tendering procedures in Kenya fall under the Public Procurement and Disposal Act, 2005 that came into operation on 1st January, 2007. The purpose of the Act is to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to achieve the following objectives— (a) to maximize economy and efficiency; (b) to promote competition and ensure that competitors are treated fairly; (c) to promote the integrity and fairness of those procedures; (d) to increase transparency and accountability in those procedures; and (e) to increase public confidence in those procedures; (f) to facilitate the promotion of local industry and economic development according to the PPDOA, Chapter 412c (2007).

ICRC has a range of internal cost control and auditing measures which aim to ensure full accountability to donors and stakeholders. Headquarters has direct control over local procurement and enforces tight guidelines.

The principles of procurement in ICRC include adherence to principles of WHO “a model quality assurance system for procurement agencies. Transparency and competitiveness in the procurement process, Quality assured products procured at the best value for money. Adherence to National and international laws (Zweygarth, 2013)

Low value acquisition: Low value items are products purchased under the value of US\$1,000 and are used mostly as supportive items, consumables or products used in ad hoc situations. These items are locally available, with a low technical profile and a low financial on the total expenditure the procurement process for low value purchases is conducted in 40% of the cases through the opening of a competitive bidding exercise, which adds complexity and effort. The need to conduct a tendering process and evaluation of bids extends the lead times (Larroya, 2011)

Open tender : A [bidding process](#) that is [open](#) to all [qualified bidders](#) and where the [sealed bids](#) are opened in public for scrutiny and are chosen on the basis of [price](#) and [quality](#). Also called [competitive tender](#) or [public tender](#) (Lynch, 2013) .ICRC uses this method for procurement.

Restricted tender: Restricted tenders, restricted calls for tenders, or invited tenders are only open to selected prequalified vendors or contractors. This may be a two-stage process, the first stage of which produces a short list of suitable vendors. The reasons for restricted tenders differ in scope and purpose is because there is essentially only one suitable supplier of the services or product. There are confidentiality issues such as military contracts which involve procurement based on quotes being sought directly from one or more suppliers can be undertaken for any procurement under the relevant thresholds where it represents value for money. The value and reasons for the direct source must be documented. This method may be used where there is a need to weed out tenderers who do not have the financial or technical capabilities to fulfill the requirements (Lynch, 2013).

Information Technology in E-procurement

Davila, Gupta and Palmer (2003) define E-procurement as ‘... the use of electronic methods in every stage of the purchasing process from identification of requirements through payment and potentially to contract management (Aini &

Hasmiah, 2011). Moreover, Anonymous (2001) describes e-sourcing as the process of using web based technologies to support the identification, evaluation, negotiation and configuration of products, suppliers and services into a supply chain network that can efficiently respond to changing market demands (Anonymous, 2001). (Berger & Garyfalakisfine, 2013) define e-procurement, as any purchase process, which is supported by the use of internet and electronic technologies, including all stages ranging from the supplier identification until delivery.

As the procurement function of many organizations is becoming more strategic, procurement technology allows for a process re-design that makes the procurement process open with improved accountability, transparency and reporting capabilities; thereby speeding up the procurement cycle and providing greater access to more opportunities for suppliers (Charles, 2008). Procurement technology helps organizations accelerate procurement processes by integrating suppliers and inventory management in order to improve on stock level performance (CIPS, 2008).

The electronic reverse auctions (eRA) are an e sourcing method of competitive bidding between multiple qualified suppliers competing against each other in order to win a contract by a buying organization as opposed to the classical auction, where the product being sold is sold to the company/person who pays the highest price, here we deal with the buyer that wants to buy the product or the service with the lowest price from different suppliers. During the recent years buyers from public sector organizations and private sector businesses are increasingly adopting electronic reverse auction as a procurement tool to achieve greater savings as compared to traditional sourcing methods. But researchers reveal that these saving benefits for buyers come in expense of the suppliers, which may affect buyer-supplier relationship and which might yield in low or no participation from the good suppliers Memeti (2011).

Implementation of technology aides the procurement processes and supports the overall strategy of an organization. Technology can also increase supplier access to bid opportunities which can result in increased competition, diversity and inclusion of suppliers. Technologies that are currently available and applicable to procurement processes include: E-commerce; more specifically, e-sourcing, e-procurement, e-purchasing, e-tender, electronic payment solutions; Knowledge portals/supplier databases; E-invoicing/e-payables and ERP (Enterprise Resource Planning) systems. Benefits of technology in procurement include; reduction of time and costs associated with the procurement process; Collaboration with suppliers that can improve performance, product and costs. Other benefits of technology include accurate and instant information flows to provide information on the organization’s total expenditure, suppliers, and inventory that can be retrieved and analyzed to improve procurement decisions. This helps to reduce stock levels, create savings, and further improve communication with the suppliers who will no longer have to rely solely on forecasts. Technology in procurement improves management of existing contracts, suppliers, and improved work flow e.g. approval and release of orders, etc. in real time. The use of technology can increase potential suppliers’ knowledge of, and access to open solicitations, thereby increasing competition, diversity, and

inclusion. In terms of transparency, technology allows greater access to the procurement processes for procurement professionals, suppliers, and the public, thereby increasing transparency in tendering methods. It also contributes to improved information flow and data collection resulting in improved auditing capability (CIPS, 2008).

Going by the various benefits of technology applications in procurement processes, and Enterprise Resource Planning (ERP) system, the procurement processes are initiated and completed online, including payments. Process efficiency and administration costs are reduced. This therefore is a great achievement, bearing in mind that procurement records management is a great challenge to many public procurement entities. The study sought to examine the effects of technology applications by ICRC procurement department.

Organization structure

The governing bodies of the ICRC, comprising the Assembly, the Assembly Council and the Presidency, have overall responsibility for ICRC policy, strategy and decisions related to the development of IHL. These bodies oversee all the activities of the organization, including field and headquarters operations and the approval of objectives and budgets. They also monitor implementation by the Directorate of Assembly or Assembly Council decisions and are assisted in this task by a Control Commission and the internal and external auditors (ICRC, 2013).

The ICRC has a president and a vice-president. The president, who bears primary responsibility for the ICRC's external relations, represents the ICRC on the international scene and, in close cooperation with the directorate general, handles the ICRC's humanitarian diplomacy. At the internal level, he attends to the cohesion, smooth running and development of the organization (ICRC, 2013).

The Directorate is the executive body of the ICRC, responsible for applying and ensuring application of the general objectives and institutional strategy defined by the Assembly or the Assembly Council. The Directorate is also responsible for the smooth running of the ICRC and for the efficiency of its staff as a whole (ICRC, 2013).

The Assembly is the supreme governing body of the ICRC. It nominates the directors and the head of Internal Audit. Composed of between 15 and 25 co-opted members of Swiss nationality, the Assembly is collegial in character. Its President and Vice-President are the President and Vice-President of the ICRC (ICRC, 2013).

The Assembly Council is a subsidiary body of the Assembly. It prepares the Assembly's activities and takes decisions on matters within its competence, in particular strategic options relating to general policy on funding, personnel and communication. It serves as a link between the Directorate and the Assembly, to which it reports regularly. Composed of five members elected by the Assembly, it is chaired by the president of the ICRC (ICRC, 2013).

In Kenya the mission is headed by head of delegation. There are a total of 370 staffs in Kenya office. There is an administrative section and logistic section which has a head. The procurement is carried out in Nairobi office department which falls under logistics department and it is divided into 4 sections

namely;-Medical, administration, water and sanitation and relief supply goods which include food. The Nairobi office which has 150 staffs working in the logistics and administration office headed by the section chief.

Procurement performance

Smith and Conway identified seven key success factors which influence procurement, namely; a clear procurement strategy, effective management information and control systems, development of expertise, a role in corporate management, an entrepreneurial and proactive approach, co-ordination and focused efforts. An eighth is fundamental; communicate the key success factors to all levels of the organization and set out a procurement strategy to achieve continuous improvement in value for money. This should be based on total cost, quality, and enhancement of competitiveness of suppliers using best procurement practice.

Supplier performance has an impact on procurement performance. According to Leenders and Fearon (2002), decisions to buy instead of make to improve quality, lower inventories, integrate supplier and buyer systems and create co-operative relations underline need for good supplier performance. Recent trends are to have fewer suppliers; long-term contracts, e-procurement and continuing improvement in quality, price, and service require closer co-ordination and communication between key procurement partners. Supplier switching for lower prices may not result in the best long-term value. Sharing information and assisting suppliers to improve performance is a necessity for world-class performance.

There is need to have coherent methods of performance in the procurement function in PEs. Lardenoije, van Raaij and van Weele (2005) asserted that basing on financial performance and neglecting non-financial performance cannot improve the procurement operations because only partial performance is considered. Realization of procurement goals is influenced by internal and external forces. Interactions between various elements; professionalism, staffing levels and budget resources, procurement organizational structure, regulations, rules, and guidance, and internal control policies, all need attention and influence procurement performance.

IV. METHODOLOGY

Research Design

Research design has to do with the blueprint for the collection, measurement and analysis of data (Cooper & Schindler, 2006). This study used descriptive research design. According to Mugenda and Mugenda (2006) a descriptive research is a process of collecting data in order to answer questions concerning the current status of the subjects in the study. The purpose of a descriptive research is to determine and report the way things are done. Descriptive research is used to obtain information concerning the current status of the phenomena to describe what exists with respect to variables or conditions in a situation. The methods involve a range of activities: from the survey which describes the status quo to the regression study which investigates the relationship between variables. The primary use of descriptive statistics is to describe

information or data through the use of numbers (create number of pictures of the information).

Study Population

The population of interest in the study was the employees of ICRC-Kenya with an estimated population of 150 employees. It is from these that the employees of the procurement department were sampled.

Data Analysis and Presentation

Upon collection of the data from the selected members of the target population using questionnaires, the questionnaires were cleaned, coded and edited for accuracy, completeness and uniformity. Quantification of Likert scale categories has been done by assigning numerical values to the various categories in order to facilitate statistical representation of data. The data was analyzed using SPSS version 21 using frequency and percentage tables and it is from those the recommendations were derived. The following mean range was used to arrive at the mean of individual indicators and interpretation.

Mean Range	Response Mode	Interpretation
4.21 - 5.00	Strongly Agree	Very satisfactory
3.41 - 4.20	Agree	Satisfactory
2.61 - 3.40	Not Sure	Unable to tell
1.81 - 2.60	Disagree	Poor
1.00 - 1.80	Strongly Disagree	Very Poor

A multivariate regression model was used to link the independent variables to the dependent variable as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where; Y = Procurement performance measurement

X₁ = Organization structure

X₂ = Procurement policies

X₃ = Donor Funding

X₄ = Information technology in procurement

In the model, β_0 = the constant term while the coefficient β_i , $i = 1 \dots 4$ was used to measure the sensitivity of the dependent variable (Y) to unit changes in the predictor variables. μ represents the error term which captures the unexplained variations in the model.

V. RESEARCH FINDINGS AND DISCUSSION

Descriptive Analysis

Organization structure and procurement performance at International Committee of the Red Cross –Kenya

The first issue of concern in this study was to explore the effects of organization structure on procurement performance at the International Committee of the Red Cross –Kenya. To explore this, four issues were evaluated using a 5 point likert scale. It was established here that majority of the participants strongly felt that the procurement department played a critical role in the company

and as such was held in high esteem in the company hierarchy (mean=4.50). Regarding involvement of the procurement section during budgeting by the management, the general feeling was that the organization was involving the procurement department considerably towards that end as confirmed by the level of satisfaction of participants regarding this (mean=3.83). As for the involvement of staff in decision making (mean=2.82) and the team work in the organization aimed at ensuring efficiency in the procurement process (mean=2.64), the participants were not able to authoritatively confirm or deny the existence of the mentioned issues at the organization. This is shown in table 4.3 below.

Table 4.3 Perceptions regarding the effects of organization structure on procurement performance at ICRC-Kenya

Indicators	Mean	Std. Deviation	Response Mode	Interpretation
Procurement department is recognized in the organization	4.5	0.68	Strongly Agree	Very True
Staff involved in decision making	2.82	1.00	Not Sure	Not Sure
Management involve the procurement section during budgeting	3.83	0.75	Agree	True
Organization works as a team towards ensuring efficiency in the procurement processes	2.64	0.9	Not Sure	Not Sure

Procurement policies and procurement performance at the International committee of the Red Cross-Kenya

The perception of the participants regarding the procurement policies at ICRC-Kenya is largely that procurement process at the organization’s procurement department are a barrier to service delivery in the organization (mean=3.95). It was also the general feeling among the participants that these

procurement policies are inefficient in solving procurement challenges in the organization (mean=3.48). On the other hand, it was not clear whether or not these procurement policies were tedious and unnecessary (mean=3.13) or if they are rigid as to inhibit service delivery in the organization (mean=2.63) as is shown in table 4.4 below.

Table 4.4 Interpretation of staff perception of the procurement policies and its corresponding effect on service delivery at ICRC-Kenya

Indicators	Mean	Std. Deviation	Response Mode	Interpretation
Procurement process tedious and unnecessary	3.13	1.04	Not sure	Not Sure
Procurement processes a barrier to service delivery	3.95	0.6	Agree	True
Procurement processes are rigid	2.63	0.87	Not sure	Not Sure
Procurement processes are inefficient in solving procurement challenges in the organization	3.48	0.88	Agree	True

Donor funding and procurement performance at the International Committee of the Red Cross-Kenya

In order to evaluate the effects of donor funding on the procurement performance in the procurement department at the International Committee of the Red Cross-Kenya, participants opinion regarding adequacy of humanitarian supplies in the light of donor funding, the proportion of donor support with regards to the budget, whether or not funding comes from private donors and the government and finally whether or not restrictions exists in the usage of donor funds in the organization. Among the interviewed staff, there was a strong feeling that donor funding

for the humanitarian supplies is adequate (mean=4.33) as well as that funding comes from private donors and the government for the organization (mean=4.65). Most of the participants were also of the opinion, though they did not feel strongly about it, that restrictions exists in the usage of donor funding (mean=4.00). When asked whether or not the donor catered fully for the budget, the participants were not very sure (mean=3.00) probably confirming the earlier finding among the participants that funding for the organization comes from private donors and the government. This is shown in table 4.5 below.

Table 4.5 Participant’s perception regarding donor funding with respect to procurement performance at ICRC-Kenya

Indicators	Mean	Std. Deviation	Response Mode	Interpretation
Donor funding for the humanitarian supplies is adequate	4.33	0.47	Strongly Agree	Very True
Budget fully catered for by the donor funding	3.00	1.28	Not Sure	Not Sure
Funding comes from private donors and the government	4.65	0.58	Strongly Agree	Very True
Restrictions exists in the usage of donor funds	4.00	0.91	Agree	True

Application of information technology on procurement performance at the International Committee of the Red Cross-Kenya

This was the last question that the research study sought to establish. Here, it was established that majority of the participants were satisfied with the organization's investment in Information Technology (mean=3.45) and the impact of procurement programme on ordering and follow up time (4.13).

As for the assistance of procurement programme to the procurement process and the impact of procurement programme on operation costs, the study established that most participants were not able to give an absolute response regarding whether or not they agreed with the state of affairs in the organization as confirmed by a mean response rating of 3.33 and 3.18 respectively. The mean response rating of the 4 variables is as shown in table 4.6 below.

Table 4.6 Perception of participants regarding the effects of information technology on procurement performance at ICRC-Kenya

Indicators	Mean	Std. Deviation	Response Mode	Interpretation
Organization's investment in Information Technology	3.45	0.99	Agree	Satisfactory
Procurement programme assistance in the procurement process	3.33	0.83	Not sure	Not Clear
Impact of procurement programme on ordering and follow up time	4.13	0.82	Agree	Satisfactory
Impact of procurement programme on operation costs	3.18	0.87	Not sure	Not Clear

Regression Analysis

Multiple regression analysis was then carried out to test the research objectives with the model equation being $Y = \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \epsilon$. As is shown in table 4.7 below, 72.1% of the variations in the dependent variable were explained by the independent variable as measured by the goodness of fit (R-

square). The model summary table 4.7 provides the R, R², adjusted R², and the standard error of the estimate, which can be used to determine how well a regression model, fits the data. From the table, R squared is the fraction of the variation in dependent variable (Procurement Performance at ICRC-Kenya) that can be accounted for by independent variables.

Table 4.7 Overall Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849(a)	.720	.688	.27951

a. Predictors: (Constant), Information Technology, Procurement Policies, Donor Funding, Organization Structure

To test the fitness of the model in estimating the effects of the independent variables on the procurement performance at ICRC-Kenya, two way ANOVA was carried out where the statistics (F(4)=22.531, p-value=0.000) was realized as is shown

in table 4.8 below: implying that the model was significantly fit to be used in predicting the effects of independent variables on procurement performance of ICRC-Kenya.

Table 4.8 ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.041	4	1.760	22.531	.000(a)
	Residual	2.734	35	.078		
	Total	9.775	39			

a. Predictors: (Constant), Information Technology, Procurement Policies, Donor Funding, Organization Structure

b. Dependent Variable: Procurement Performance

The model revealed that there the independent variables namely; organization structure, donor funding, procurement

policies and information technology as in the case of e-procurement, had significant effects on procurement performance

at ICRC-Kenya. This was established from the significant results noted at 5% level of significance the use of information technology such as that of e-procurement (p=0.000). As for the organization structure (p=0.071), procurement policies (p=0.899) and donor funding (p=0.267) the findings were not significant. Further to this, it was established as is shown in table 4.9 below

that if all the other factors were held constant, there would be a reduction in the procurement performance that would be achieved by ICRC-Kenya. For a change towards the use of information technology, the procurement department would experience an improvement by 0.184 units as shown in table 4.9 below.

Table 4.9 Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta	B		
1	(Constant)	-.904	.274			-3.295	.002
	Organization Structure	.416	.223	.673		1.863	.071
	Procurement Policies	-.029	.228	-.046		-.128	.899
	Donor Funding	.081	.071	.133		1.128	.267
	Information Technology	.184	.039	.431		4.694	.000

a. Dependent Variable: Procurement Performance

Correlation Analysis

The association among the variables used in the study was examined using the correlation analysis whose results are presented in table 4.10 below. Correlation coefficient is a measure of linear association between two variables. Values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that two variables are perfectly related in a positive linear sense; a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense, and a correlation coefficient of 0 indicates that there is no linear relationship between the two variables.

In this study, organization structure was established to be strongly correlated with procurement policies (r=0.968) as well as donor funding (r=0.625) but negatively correlated with information technology (r=0.006) in a relationship which was also established to be weak. All these relationships except between organization structure and information technology were significant at 5% level of significant. As for procurement policies, between it and donor funding, a strong positive and significant correlation was noted (r=0.611) as shown in table 4.10 below.

Table 4.10 Correlation Analysis

Independent Variables		Organization Structure	Procurement Policies	Donor Funding	Information Technology
Organization Structure	Pearson Correlation	1	.968(**)	.625(**)	-0.006
	Sig. (2-tailed)		0	0	0.971
	N		40	40	40
Procurement Policies	Pearson Correlation		1	.611(**)	-0.004
	Sig. (2-tailed)			0	0.981
	N			40	40
Donor Funding	Pearson Correlation			1	0.173
	Sig. (2-tailed)				0.286
	N				40
Information Technology	Pearson Correlation				1
	Sig. (2-tailed)				
	N				40

**** Correlation is significant at the 0.01 level (2-tailed).**

VI. SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

Organization structure and procurement performance at International Committee of the Red Cross –Kenya

Even though there was no direct significant relationship noted between organization structure and performance of the procurement department at ICRC-Kenya ($p=0.071$) at 5% level of significance or information technology which was established to be strongly correlated with procurement performance in the organization, there is a strong feeling of satisfaction among the employees in the department that procurement department played a critical role in the company and as such was held in high esteem in the company hierarchy (mean=4.50) as well as the role of procurement section in the budget making process by the management, the general feeling is that the organization involves the procurement department considerably towards that end (mean=3.83). As for the involvement of staff in decision making (mean=2.82) and the team work in the organization aimed at ensuring efficiency in the procurement process (mean=2.64), there are mixed feelings by the staff.

Procurement policies and procurement processes at the International committee of the Red Cross-Kenya

The perception of the participants regarding the procurement policies and procurement processes at ICRC-Kenya was largely that procurement policies at the organization's procurement department are a barrier to service delivery in the organization (mean=3.95) and that also that these procurement policies are inefficient in solving procurement challenges in the organization (mean=3.48). On the other hand, it was not clear what the general feeling regarding whether or not these procurement policies were tedious and unnecessary (mean=3.13) or if they are rigid as to inhibit service delivery in the organization (mean=2.63). This was despite the lack of notable significant evidence for the association between procurement policies and performance of the procurement department in the organization.

Donor funding and procurement performance at the International Committee of the Red Cross-Kenya

As for the effects of donor funding on the procurement performance in the procurement department at the International Committee of the Red Cross-Kenya, humanitarian supplies is very satisfactorily adequate (mean=4.33). The same for sources of funding which is mainly from private donors and the government (mean=4.65). A lot of restrictions also does exist in the usage of donor funding (mean=4.00) to the ICRC-Kenya.

There is however mixed feeling regarding whether or not the donor catered fully for the budget (mean=3.00). This was despite the lack of evidence to support the relationship between donor funding and the performance of the procurement department.

Application of information technology on procurement performance at the International Committee of the Red Cross-Kenya

A significant association between application of information technology and performance at the procurement department was noted at $p=0.000$. No other variable was found to be strongly correlated with information technology among the variables under study. Also noted was that majority of the employees at ICRC-Kenya procurement department are satisfied with the organization's investment in information technology (mean=3.45) and the impact of procurement programme on ordering and follow up time (4.13) but not with the assistance the procurement programme and its effect on operation costs, there is no clear cut understanding based on the responses given as to show whether or not the employees in this organization agreed with the state of affairs in the organization.

Conclusion

Of all the variables under study namely; organization structure of humanitarian organizations, procurement policies donor funding and investment and application of information technology in procurement processes at the organization, it is only application of information technology that significantly affects procurement performance at ICRC-Kenya. Procurement policies are a hindrance to service delivery

Limitation

Humanitarian organizations are very sensitive in matters of data confidentiality (Oloruntoba & Gray, 2006),(Burger& Owens, 2010) hence, gathering data besides the officially published material was difficult in the humanitarian aid sector. The staff completed the questioners after being explained to the research could assist the organization improve their performance. There was limited literature on procurement in humanitarian organizations. Data collection was challenging owing to the fact that travelling was involved to another town to administer the questionnaires which required time and money. One of the staff volunteered to collect the questioner once completed and sent them to the researcher.

Recommendation

The study recommends the following:

1. Procurement policies in humanitarian organizations should be streamlined by the policy makers in such organizations to ensure that they do not inhibit delivery of critical services.
2. Humanitarians organizations should invest in information technology especially e-procurement in their procurement departments to ensure that the procurement process are made more efficient towards aiding service delivery in such organization without necessarily compromising the integrity of any procurement process.

Suggestions for further study

Further study to unveil the nature of effects of information technology on procurement processes and how the challenges posed by the same can be overcome.

There is also need to find out how much wastage occurs in humanitarian organization in situations of items expiring or not being needed anymore once the disaster is over

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