

**SOCIAL INFERENCE TO GENDER ON LOGISTICS IN DISASTER RELIEF
OPERATIONS IN KENYA**

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ABSTRACT

Social inferences on gender has in the recent past received a lot of attention from logistics practitioners, academicians and logistics organizations management. This sought to find out the impact of this inference on humanitarian logistics in disaster relief operations and how humanitarian organizations are overcoming the inferences. The target population for this research was 40 employees from the 10 humanitarian Logistics organizations that handle social issues such as gender; the response rate was 90%.The research adopted descriptive survey as the research design and a census as the sample design. Questionnaires were used to collect data. Data analysis was done using statistical tools that were broken down according to descriptive information as obtained from the research questions. Both inferential and descriptive statistics were used to interpret the data backed up with the use of measures of dispersion and those of central tendency. The study findings show that indeed there is a strong relationship between the social inferences to gender and humanitarian logistics and it is this relationship that causes effects on disaster relief operations. The findings are in line with the literature review in that there are varied ways in which cultural and similarities and differences affect social inferences to gender. With an overall mean of 3.64, the respondents confirmed that social inferences affects gender during disaster relief. The study confirms that there is a strong relationship between the dependent and independent variables and the independent variables have a strong ability to influence the outcome of the dependent variables. The researcher recommends that disaster relief operations in humanitarian logistics organizations need to be linked to development to ensure sustainability and Long-term impact to the affected communities even after donor aid is depleted. The duration provided for this study was fairly short and this limited the amount of detailed research that would have otherwise been done should there have been more time to do the same.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Natural disasters and human struggle have led people into state of emergency leaving them unable to undertake their own simple daily needs. Of significance to notice is the truth that struggle and natural disasters have an effect on both women and men and take exceptional approaches. According to study completed through the UNHCR in 2012, women and children, shape the most important proportion of civilians displaced with during warfare both locally and internationally. It ought to be referred to that women and men are vulnerable to unique kinds of dangers in emergencies that may be related to their physical well-being, food safety, fitness, earnings-generating activities among other concerns. The reality that women bear the reality of food shortage during famine, have belongings such as flock and households, less power, much less mobility, much defense in opposition to violence as compared to men, makes them vulnerable all through when crises occur. Even as a few argue that women, men, and children have same fundamental needs in the event of a disaster, in the midst of social inequalities, all persons regardless of gender require humanitarian reaction, evidence from countless distinctive contexts (Ergun, 2009).

Social inferences to gender in humanitarian situations create a notion that the jobs and obligations during catastrophe, dictates for diverse roles over the period of warfare, famine, floods, earth quakes, fires, and acts of God. It is believed that women take in the duty of catering to the house and own family and essentially to recognize and take care of different members of the lager family. Humanitarian logistics has for a very long time been a key element in charitable aid operations. Logistics activities account for 80% of catastrophe

relief operations (Trunick, 2005b). How fast humanitarian assistance is provided when a disaster occurs is depending on the potential of logisticians to actually purchase, ferry and acquire the requirements to the field and areas where humanitarian relief effort are needed most (Thomas, 2003). Humanitarian logistics covers a diverse class of activities including stock control of humanitarian help materials and medicinal supplies; and their transportation and distribution to the affected population. There are occurrences where relief aid of different natures is required to help especially the third world countries because there are prone to the acts of God, and are less prepared unlike the first world economies. Humanitarian logistics operations are structured to deal with specific disaster situations and in most cases take place in a locality in which there may be inadequate infrastructure (Cassidy, 2003) stretching from shortage of power components, road networks, assembly points to provide the relief aid materials, medical experts and equipment, and delivery equipment. In addition to that, natural calamities are very unforeseeable hence, the request for the necessities is also not easy to predict, because some of the disasters strike suddenly and on infrequent trends (Long and Wood, 1995).

1.1.1 Social Inference on Gender

Present day relief aid organizations have the intuition for inferences on gender and the distinct approaches traditionally and historically applied that have led to discrimination towards marginalized groups. These trends have implications for how assistance and personnel in relief organizations must respond to changing dynamics among exceptional social agencies that come proximately to crisis. The personnel charged have interacted with situations and have the better understanding of how males and females are assisted at

different times and situations of aid operations. Women needs are unique from those of men and because of this, humanitarian logistics operations need to give attention through the most effective sectors that contribute to safety towards women and additionally integrate a gender perspective at some point of all in their work with specific awareness on how the society infers aid in relation to gender. This happens through knowledge that women have unequal strength to manipulate and access resources like men would, and to participate in decision making at family or community degree (Moser and Clark 2000).

It follows that humanitarian logistics operations remain indifferent from dynamics inside a community in an emergency response situation. Within suitable operations, women issues are addressed through a similar platform alongside those of men. Interventions are possibly to be more disadvantageous to women's pursuits and consequently be of less impact to women related matters (Deborah Clifton and Fiona Gell, 2016), and the arguments around this problem, will be unbiased; a gender-sensitive approach has to be taken into consideration in humanitarian work. The needs of the women in this context are different from those of men because of exposure, dependency, being caregivers to children and physical attributes.

Gender-sensitive responses in emergencies depend upon growing precise social background whenever an emergency happens. This includes drawing on people's proximate rooted expertise of prevailing social dynamics and synonymous energy of members of the family, and challenges in the relief aid processes. There is a rejection of older ideas of how emergency activities would impact on gender due to economic powers

that today has shifted from the traditional norms. A focal point on women lives has changed within a society, and today some are breadwinners, which negates the notion of unequal results for men and women in catastrophe remedy situations. In the communities, all through peace and warfare, or prior to a natural disaster and in the aftermath, the gender social identity and inference presents to the people opportunities and techniques for acquiring aid materials just necessary for survival. In the majority of societies such as first world countries, women's identification are given as caregivers, wives, mothers, and daughters; placing them in a position of advantage resources through their relationships with men. Understandings of women differences and their capacities when empowered predicts disaster preparedness in the entire community and stability; and this strengthens social relationships between men and women in which traditional inference would have made to worsen the outlook for women (Michael Anderson, 2008).

1.1.2 Logistics in Disaster Relief Operations

The goal in disaster relief is to; layout infrastructure for useful resource mobilization, install dignified remedy, provide the technology and deliver aid materials to a wide range of locations spread over the disaster area and the moving human beings to safer grounds in the shortest periods as will save lives and the dignity of the affected (Barbarosoglu, 2002). The occurrence of most disasters require spot reaction, and suddenly the supply chains should be designed to access and deliver supplies immediately the catastrophe hits at the locality irrespective of the limited knowledge of the scenario. (Beamon, 2004; Long and Wood, 1995; Tomasini and Van Wassenhove, 2004).

Humanitarian relief operations include diverse activities at diverse instances and relate to numerous calamities. The operations are aimed at helping humans to survive and deal with the psychological trauma thereafter. However, in situation where aid workers are dealing with famine aid and managing refugee homes is definitely extraordinary from the kind of help offered after a natural disaster as this comes with a unique set of dangers and challenges (Krajewski, Malhotra and Ritzman, 2015). For this reason, the chains of humanitarian logistics can be outstanding with skills being continuously acquired to deal with the dynamic situations in disaster alleviation.

As famine alleviation is at times viewed under disaster relief (Long, 1997), the phrase disaster remedy is maintained for sudden catastrophes like natural catastrophe e.g. (earthquakes, avalanches, hurricanes, floods, fires, volcanoes eruptions) simply to call a few. International interventions are available to assist in the event that such calamities occur. Technology especially from certain countries comes in handy in the times of terrorism and collapsed buildings with large magnitudes in a society with the purpose of helping local residents (Long and Wood, 1995). The function encompasses quite a number activity along with preparedness, planning, procurement, transport, warehousing, monitoring and trailing, customs and clearance (Thomas, 2004).

Sourced materials that are dispatched to disaster-afflicted locations arrive in various forms depending on the target recipients' tradition and the character of relief need required. Aid groups that deal on humanitarian relief operations and fund the required items come from diverse countries and those donors ship their items categorized in different bureaucracy

and languages (Murray, 2005). This indicates there is no preferred labeling and the shortage of it therefore turns into one of the sizable troubles of distributing the materials procured which people need the resource for relevant aid (Murray, 2005). As a result, resource agencies began to color-code the materials for identification in urgent supplies.

1.1.3 Humanitarian Organizations in Kenya

Humanitarian businesses engage in two broad sorts of activities: first, alleviation events, which include help to victims of massive-scale emergencies and second, to involve quick-time period measures that target provision of products and offerings to reduce instantaneous threat to human fitness and survival (Charles, Lauras and Van Wassenhove, 2010). Humanitarian businesses are concerned inside the provision of humanitarian help inside the forms of food, water, medicine, safe haven, and supplies to affected populations. Moreover, those businesses are involved in quite a number activity that encompass preparedness, making plans, procurement, shipping, warehousing, monitoring and tracing, and customs clearance (Klassen, 2007).

The running environment in Kenya is extremely unstable, liable to political and army influence, and is consequently inefficient for humanitarian logistics activities (Ruso and Frankel, 2007). Humanitarian corporations address alleviation elements that happen in different parts of the country. This is further complicated when catastrophe moves in far off areas as they regularly do. The activities of making plans, implementing and controlling the materials in addition to associated records, in the course of the humanitarian logistics operations (Tatoglu and Zaim, 2013). In cases of emergencies, coordination and

conversation of disaster comfort operations is essential. The humanitarian companies want to not most effective ensure that there is good enough and timely conversation however additionally appropriate coordination to make sure that they thoroughly reply to the desirable materials and employees to remedy the scenario making sure maximum impact (Thomas, 2003,) posit that, catastrophe help duties war with notably precise conditions. They regularly must be carried out in a domain with destabilized frameworks (Cassidy, 2003; Long and wood, 1995) extending from a lack of energy constrained basis.

Although disasters are uncontrollable and happen in unprecedented manner, interest for products in those conditions is moreover unusual (Cassidy, 2003; Murray, 2005). On this manner, there are different traits outstanding that separates humanitarian logistics from commercial enterprise. Point of interest is the differential social inferences to gender attributes of humanitarian logistics in a catastrophe alleviation duty. The comprehension of arranging and finishing humanitarian logistics activities by the aid givers in certain regions of calamity remedy with a keen attention on the social inferences to gender provides a structure that acknowledges the social characters, levels, and calculated tactics of catastrophe assistance.

Kenya has a huge variety of International Non-Governmental Companies (NGOS) as well as United Nations (UN) affiliated humanitarian employer which are in large part concerned in humanitarian aid paintings consisting of disaster, relief, health, reconstruction and development activities in various components of the country (Chima, 2007). Those groups provide humanitarian assistance in keeping with their mandates and degree of investment;

alleviate struggling, to healing and Long-time period development (Njanja & Pellisier, 2011).

1.2 Research Problem

Donors are becoming sensitive to the social tolerances and practices of each community as pertains to gender and children in times of disaster relief. Various strategies are used by humanitarian logisticians that contribute to operational efficiency in times of emergency and during demand for relief assistance (Scholten, 2010) Due to the complexity of the traditional beliefs and gender inferences emanating from different cultures (Balcik , 2010) the logisticians need to create a professional logistics community that will allow sharing of the knowledge on the local inferred practices to enable aid to be tailor made to that specific local community which will lead to agility and leanness (Cozzolino, 2012) .

They also need to standardize trainings geared towards having common processes and vocabularies that will help them understand the local coding and the body language of the community member at all times (Van Wassenhove, 2006). There is also need to improvise some flexible forms of technology that can track performance on real time basis so that is it easy to assist victims. Humanitarian logistics service operators must form a network, communication and coordination with other players in the same industry so as to form strategic measures on how to have a common front in order to effectively support the ultimate goal of disaster relief operations.

Humanitarian logistics takes the need of understanding the contextual differences from predicting demand, coordinating the supplies, understanding the cultural norms, planning for the strategies for specific relief operations while still considering the balance between gender, children and culture. (Long and Wood, 1995) in their study, found out that humanitarian aid is affected by unpredictability of demand due to environmental and infrastructural dilemma (Van Wassenhove, 2006). Decision making in humanitarian logistics and in pursuit of relief aid is made on the basis of the specific catastrophe that is at hand and at times this transforms from one issue to another due to the complexity of the situation (Kovacs and Stens, 2007) there are external aspects that touch enactment of international humanitarian operations. One of these factors is the disasters happening and disasters that end up over-stretching the available resources needed by the affected communities. Humanitarian aid donors are becoming more demanding to humanitarian service providers with respect to result delivery and the impact of the results.

Therefore, the research questions are: What are the social inferences to gender in humanitarian logistics operations and what is the impact of social inference on humanitarian relief operations in Kenya?

1.3 Study Objectives

The main objective is to find out which social inferences on gender to affect operations in disaster relief operations. Specific objectives are listed below:

- i) To identify the social inferences to gender in humanitarian logistics operations

- ii) To determine the impact of social inference to gender on humanitarian relief operations in Kenya

1.4 Value of the Study

The research goes a Long way in identifying how social inferences to gender are likely to interfere with how humanitarian relief initiatives are conceptualized, planed and rolled out in disaster stricken environments. It is this information that will then inform humanitarian organizations on the strategic approaches that can be taken to handle disaster relief activities in a more efficient and effective manner that guarantees delivery of long term and cost effective solutions to various disaster management situations.

The study will create the conceptualization, planning and rolling out of activities necessary in disaster stricken environment by the operations managers. The information will also be used for strategic planning since this research will outline ways through which humanitarian organizations will be able to overcome these social inferences to gender during disaster relief. The report will also provide a paradigm shift in the manner in which disaster relief situations have been handled in the past with a keener focus on the different ways in which social inferences on gender are likely to affect the impact the noble humanitarian aid actives these organizations engage in. By understanding the challenges facing humanitarian organizations, these firms will be able to develop better mechanism of tackling these issues for better performance in humanitarian aid and disaster relief activities.

This research work will also inform areas of further research alongside areas of improvement for future studies. Future researchers and scholars will advance the body of knowledge on humanitarian logistics activities. Which will then contribute towards building the concept and work done. Other stakeholders will also gain a better understanding of the environment within which relief humanitarian organizations operate.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on social inferences on gender and humanitarian operations in disaster relief situations. The chapter focuses on analyzing literature from other authors on the existing theories on the subject matter, social inferences to gender, humanitarian logistics in disaster relief operations and a summary of the literature review.

2.1 Theoretical Framework

Predicting occurrence of disaster has over time been one of the most difficult humanitarian logistics firms have had to deal with. The burden however rests with disaster relief managers and expectations are high to ensure solutions in managing these disasters efficiently are found and implemented. Managers in small, medium and large humanitarian logistics organizations usually find themselves having to deal with constructing Long-term relationships with suppliers, risk management, and disaster relief management (Bruel, 2017).

2.1.1 Theory of Obligation

In instances where there is disruption in the normal lives of human beings, the theory suggests that as a result of the human conscience, human beings are naturally inclined towards offering assistance to the affected persons be it Long term or short term support all aimed at trying to normalize their lives after a disaster strikes. The links amid human rights and humanitarianism are harassed, while suggesting ideas that can manual humanitarian groups as they serve the ones in need. Humanitarianism is defined as “crossing a boundary;” chance usually is encountered by means of the provider issuer as

scarce resources are used to assist the susceptible. Responsibility is defined, in component, as “what one need to do.” (Van Arsdale, 2008). This theory also looks at the “morally possible” and the “materially possible” assistance that human beings can take in as their obligation whenever a disaster strikes (Regina, 2008).

The moral issues that are possibly regarded as those that provide physical materials to people are generally intrinsic in a community and vary from one social structure to another. The relationship between this concept and the theory of obligation is the comprehension of how logistics relief aid workers would be obligated to provide material goods and medical supplies in the midst of social inference to moral expectations.

2.1.2 Agency Theory

When managing disaster relief situations, the agency theory has shown to influence the donors’ attitudes and also motivation to manage and hedge against risks in the humanitarian logistics organization (Smith and Stutz, 1985). The relationship of this theory to the study is explanation of the possible mismatch between the donors who are the principal in this context and the humanitarian logistics organizations who in this case serve as the agent, which has the potential of creating risks because the interest of the agent are at times self-beneficial.

Some of the staff in the humanitarian logistics may have conflicting interests and therefore divert disaster relief materials and supplies for sale and personal gain instead of ensuring they reach the affected persons. When the principal and the agent engage in a long-term

relationship, according to Lambert (1983), the principal will be able learn the behavior of agent and assess that behavior more readily in order to avert any risks.

2.2 Social Inference on Gender

Social inferences are steps in reasoning, moving from premises to logical outcomes. Charles Sanders Peirce (2010) divided inference into three kinds: deduction, induction, and abduction. Deduction is deriving logical conclusions from premises known or assumed to be proper, induction is inference from precise premises to a frequent end.

Social implication to gender can be looked at from various angles. Some of these aspects include masculine dependency which refers to how the society views the man to be independent and hence able to fully rely on himself for survival. Persons of the male gender are also perceived to have authority over their households and communities at large and this gives them power to make decisions as compared to women. Women and children on the other hand are viewed by the society to be highly reliable on men for financial and nonfinancial matters and it is through this dependency that women and children tend to feel some sense of security in disaster relief situations. Social norms and beliefs equally contribute to inferences on gender since in the eyes of the society, women are traditionally associated with roles and responsibilities that are less labour intensive as compared to men. There are varied ways in which cultural and similarities and differences affect social inferences to gender (A Norenzayan, 2002). These cultural norms also define how women and men dress, address each other and their position in decision-making. Therefore, significance for altruistic logistics to be aware of contribution of these social inferences to

gender during disaster relief for building efficient humanitarian supply chains directly or with modifications in relation to the social inferences on gender (Thomas and Fritz, 2006). There are a wide range of ways in which social inferences can be aligned to gender. In the context of this study, the above-mentioned social inferences remain relevant as they address the various aspects through which disaster victims of both the male and female gender are perceived by the society. An analysis of these perceptions is what then contributes to the carrying out operations situations. Various studies mostly condemn incompetent skills (McClintock et al, 2005); and the role to be played by the very many suppliers remains unclear (Tomasini, 2004). Even after the relief goods and services have been supplied to the organization, there are challenges especially in determining who the real humanitarian aid beneficiaries would be. In situations where men are deemed to be stronger and able to sustain harsh conditions as compared to the females, then women are rescued first (Murray, 2005). This may be how the society has structured perceptions on resilience; but the reverse could be true. This brings about many redundancies and repeated operations (Simpson, 2005).

Evaluating relief help requests is additionally concept of social need and locality (Beamon, 2004; Trunick, 2005c, Wichmann, 1999), considering tribal and administrative boundaries where victims are spread, in order to provide sufficient aid materials (Long and wood, 1995). Request are made relative to appreciate timing, vicinity, and scale (Beamon, 2004; Murray, 2005; Long, 1997; Long and Wood, 1995). As Arminas (2005,) places it, the purchase and logistics of disaster relief materials for real disaster relief recognize trends and previously what the needed when similar disasters struck, the amount they received

and even wherein they needed it sent; and still who provided the delivery and distribution services. A particular trouble occurs when conventional help is given through well-wishers who may not have the knowledge and skill of what is really needed and how to deliver the aid (Dejohn, 2005). Hoffman (2005) takes note of that professional chains are equally the most effective supply chains on the earth.

Unconventional methodologies that emanate from several operators lead to limited statistical data and knowledge to help humanitarian resource mobilization organizations in need of local primary information (Long and Timber, 1995). The actual records can be retrieved through local administration and the true requirements of disaster stricken human beings assessed. This helps in planning for resources to greater and placing the right obligations to the right personnel (Long and Wood, 1995). As far as disaster remedy materials are involved, relief corporations get several spontaneous gifts from the well-wishers and deploy them to assist the victims (Chomolier et al., 2003). When the help is unconventional as phrased, there are dangers to the targeted community because, for instance, medicines and sustenance might be expired and just given so as to dispose form the stores of the giver (Murray, 2005). The clothes given to the victims may have been of no value to the giver, rendering the whole assistance to the locals not done in kindness (Dignan, 2005). Incorrect presents are not unusual to the factor that relief aid missions may carry materials to the disaster sites; which end up being hazardous to the workers and victims. (Murray, 2005).

In the brief reaction stage, international corporations anticipate to receive several requirements for the purpose of assisting disaster victims depending on particularly limited statistics (Long and Wood, 1995). The expectations are that assistance will promptly arrive to reassure comfort to the affected communities and also sufficient provisions received to go directly to the relevant beneficiaries. Since the community clans are spread to a distance, urgent supplies must be planned for well and the distribution strategies laid down accordingly to avert any deaths (Beamon, 2004; Long, 1997; Long and Wood, 1995; O ' Zdamar Et Al., 2004; Tomasini and Van Wassenhove, 2004). As indicated by Ernst (2003), there are procedures that can be identified for organizing the materials distribution and sourcing for commercial logistics providers. The purchase request management, supply administration, and humanitarian logistics activities involve measures focus on integrating functional networks for self-sufficiency and sustainability (Njanja and Pellisier, 2011). A few humanitarian agencies engage relief aid activities whilst others engage in developmental activities.

2.3 Humanitarian Logistics in Disaster Relief

Humanitarian logistics incorporates altogether different activities at various occasions, and reactions to different diverse disaster situations. Every one of these activities has the normal intention to help individuals in their survival. In any case, assistance to help the improvement of an area, starvation help and the running of affected camps is unique in relation to the sort of help required after a catastrophic event. While starvation alleviation is once in a while likewise secured disaster alleviation because food stuffs can be sourced quickly (Long, 1997), typically, disasters, for example, earthquakes, torrential slides, fires,

and any other act of God can be characterized as an external impositions into a general public with the expectation of helping the affected communities with very limited resources (Long and Wood, 1995).

Disaster relief and catastrophe remedy operations are now growing into diverse commercial enterprise sectors, since it results into sourcing from the businesses around (Thomas and Kopczak, 2005). Conveying humanitarian guide and help can, along these lines, be regarded as a generous global initiative. As indicated by way of Long and Wood (1995), sustenance remedy which has imperative impact on the survival of victims and their dignity after the calamities by proper use of transportation systems to ensure that relief aid reaches the affected population. The commercial entities have the consolidated spending plans of the some companies have spent billions of dollars (Thomas and Kopczak, 2005). Moreover, nearly each legislature on the planet is protected as both a giver and beneficiary of relief activities (Long and wood, 1995). Humanitarian logistics has dependably been a vital element in humanitarian manual activities, to the idea that humanitarian logistics endeavors represent 80 percentage of catastrophe help (Trunick, 2005b). The speed of humanitarian guide after a catastrophe relies upon "on the ability of logisticians to acquire, delivery distribute elements on website useful resource project".

Whilst a catastrophe moves, the crisis designs of provincial catastrophe alleviation operations come to motion. Anyhow, despite the fact that, these humanitarian aid companies, have to carry out essential work of procurement, and distribution of the required materials (Cassidy, 2003; Murray, 2005). Similarly, starvations take place due to

the lack of transportation challenges, unavailability foodstuffs and the dependence of women on men. The humanitarian supply chain resilience exposes the operations managers to understanding these dynamics and being able to assist without problems (Waters and Rinsler, 2017). Exceedingly populated areas with negative housing systems are likewise likely to face larger scale demolition of their dwellings; causing another disaster and crisis moves of relocating victims. As an instance, tremors additionally, surges are regularly amplified, due to poor accommodations occasions and missing improvement requirements. Supply chains have to be structured and relief aid materials dispatched at good and manageable speed in spite of the fact that the records of the situation is enormously limited in some instances (Beamon, 2004; Long and Wood, 1995; Tomasini and Van Wassenhove, 2004).

Commercial enterprise logistics and related manages run association of carriers, distribution centres, and communication facilities to coordinate and ensure understanding in humanitarian logistics (Cassidy, 2003). Natural failures can affect relief warehouse operations and their capability to effectively carrier a humanitarian supply chain, and this has a ripple impact on the overall performance of the useful resource companies (Christopher, 2016). In this way, it's far often difficult to understand which assets are reachable, or even the association and commitment of carriers is erratic (Tomasini and Van Wassenhove, 2004). This makes numerous redundancies and copied endeavors and materials (Simpson, 2005). While military help activities are normally organized from one specific coordination focus, the coordination of various guide offices in alleviation activities renders numerous appropriation focus based arranging strategies out of date. as

far as to contend against the utilization of unified conveyance offices, as exploited people are often weakened and can't venture out Long separations to get aid.

Given every one of the difficulties in organizing a multi-office and multi-service provider disaster relief operation, the correspondence and proper communication in catastrophe leads to better to help ease these activities. Outsourcing of non-core functions of a humanitarian organization is a trending issue because this transfers risks to the outsourced partner (Christopher, 2016). These organizations are likely to reduce risks and succeed if they focus on their core strengths, and they will have differential value to the recipients. The main focus of catastrophe help tasks is to structure the transportation and distribution of medical aid materials from supply focuses to an expansive number of goal hubs topographically scattered area clearing exchange individuals wellbeing focuses securely quickly (Barbarosog̃lu et al., 2002, p. 118).

Aside from measures to forestall catastrophes, key designs can likewise useful when disaster situation happen (Long, 1997). As indicated by Thomas (2003), matter of fact fills in as an extension between disaster readiness and reaction. A few things are so as often as possible required in catastrophic events that guide offices normally create solid associations with their providers and have partnerships to obtain aid materials at short notices when calamities strike. Accordingly, UNICEF's disaster administration conveyance focus gathers generally ordinarily required materials seamlessly (Dignan, 2005). Merchandise that are most usually required in calamity help are water, drug, chlorination tablets, tents, covers and protein bread rolls for kids. Numerous help

organizations without a doubt have pre-acquiring concurrences with providers of medications, tents, sheeting or cover (Murray, 2005).

Disaster administration is frequently portrayed as a system with a few stages (in length, 1997; Nisha De Silva, 2001). Cottrill (2002), acquiring from the threat management writing, discusses the arranging, remedy, reputation, response and recuperation intervals of disaster administration. Receiving this to the necessities for statistics innovation in humanitarian logistics, Lee and Zbinden (2003) study three periods of catastrophe relief obligations, the intervals of readiness, amid activities, and put up-duties. On this manner, particular obligations may be diagnosed inside the events formerly a calamity moves (the starting stage), in a cut up second after a calamity (the set off reaction level) and inside the fallout of a catastrophic occasion (the remaking level) (parent 1). In Long's (1997) terms, the initial two tiers relate to critical looking to get equipped for disaster ventures, and genuine project arranging while calamity strikes. As anybody might assume, numerous property and abilities are required for the 3 specific durations of catastrophe alleviation. In this way, the accompanying talk will moreover increase the intervals of catastrophe comfort.

An arrangement of characteristics that set business logistics aside from humanitarian logistics could now be capable of being outstanding in the assistance during disaster. Commercial enterprise logistics customarily manages a foreordained association of carriers, fabricating destinations, and stable or if not anything else unsurprising hobby – all of those factors are obscure in humanitarian logistics (Cassidy, 2003). There is however a

Long way to go in achieving coordinated logistical activities among the players because sometimes the humanitarian logistics goes for mitigating the enduring of powerless individuals rather than giving them material things (Thomas and Kopczak, 2005).

The delivery arrangement structure of humanitarian logistics moreover contrasts from that of business logistics due to the manner that it is far covered of one of these widespread quantities of appearing artists and not using reasonable or expressed linkages to each other. While various humanitarian relief responsibilities and social characters are entwined relative to social inference, diverse gatherings of relief communities are subject to distinctive durations of the catastrophic relief activities, which are identified and carried out accordingly. Each of such activities have the normal preference to help people in their survival. They often ought to be executed in a site with destabilized framework (Cassidy, 2003; Long and Wood, 1995) jogging from a want of energy to constrained shipping basis.

Although in most humanitarian logistics operations and relief aid activities are unconventional; consequently and eventually making the product distribution in those calamity areas uneven (Cassidy, 2003; Murray, 2005). The prompt reaction organizes for the most element consists of a number of provisions being driven to the disaster location. An outline of the features of humanitarian logistics that recognize commercial enterprise logistics from humanitarian logistics is humanitarian logistics, be that as it can, a huge portion of the features can absolutely be related with diverse kinds of crisis situations, no longer just those who association with disaster alleviation. By means of and by using,

what sets this type of a disaster situation separated from others is commonly the volume of the catastrophe happening and the logistics activities required (Sowinski, 2003).

2.4 Summary of Literature Review and Study Gap

The examination of humanitarian relief activities is common (Thomas and Kopczak, 2005); numerous associations keep on belittling the importance of logistics remedy tasks and only highlighting the donor activities (Murray, 2005). Scholastic writing on humanitarian logistics tends to prompt consciousness on the relationship of the length of the relief aid and the characteristics of the aid givers.

As indicated by Sowinski (2003), gaining from humanitarian operations can be essential for business supply chains, as disaster help activities exhibit certain erratic situations. This literature review examines the specialists' opinion on a number of best practices that relate to both international and local humanitarian aid operations (Ernst, 2003). It is contended that the outdated practices are a bottleneck to efficient humanitarian aid operations and leads to costly logistical operations outdated and that regardless of the whole thing it perspectives logistics as an important cost. It likewise needs operational concepts getting to know the adequacy of interest, innovation and the corresponding techniques and the systems in order to realize the operational efficiency during relief aid operations and has inadequate interests in innovation and correspondence and additionally studying of the latest techniques and systems (Gustavsson, 2003; Beamon and Kotleba, 2006). However, lack of logistics experts; the network bureaucracy, manual operations, poor assessment all lead to constraints and poor coordination.

Additionally, a look into is required humanitarian, with goal being the arranging and execution of the essential tasks of catastrophe alleviation. In this study, a structure is recommended that outlines the connections amid various on-screen social inferences to gender on humanitarian logistics characters and periods of disaster alleviation tasks. This system likewise draws parallels amid points in humanitarian, and business logistics. Despite the fact that these parallels to chance administration, emergency administration, congruity arranging and task administration are as of now showed in writing, additionally investigate is important to analyze each of these connects and propose their particular ramifications for humanitarian.

Moreover, a look into the subject of humanitarian logistics is needed, with the cease goal being to assist the arranging and execution of the vital obligations of catastrophe remedy. On this paper, a shape is usually recommended that outlines the connections among various on-display social inferences to gender on humanitarian logistics characters and intervals of disaster comfort obligations. This device likewise draws parallels among factors in humanitarian logistics, and commercial enterprise logistics. Despite the fact that these parallels to risk management, emergency administration, congruity arranging and venture management are as of now confirmed in writing, additionally investigate is crucial to research every of those connects and advocate their unique ramifications for humanitarian logistics. Naturally, the difficulties in this field are as but substantial.

Assistance is, nonetheless, on its way as experts and experts, and in addition help associations and governments, have started numerous kinds of participation. Dialogue corporations unite logistics experts, institutions and establishments and distinctive gatherings to use talent, revel in and belongings in all durations of assist activities. In the end it has a tendency to be expressed that albeit humanitarian logistics has its unmistakable highlights, the essential standards of business logistics can be related. The standards of the discussion pleasantly embodies this as they consolidate of their factors business logistics requirements selfless inspirations of humanitarian logistics: "opportune individuals, hardware and cloth, perfect region, in the right association quickly as time allows, to deliver the maximum excessive remedy any rate price – spared lives, reduced misery and the first-class usage of gave reserves" (Cilt, 2006).

2.5 Conceptual Framework

Social inferences to gender successful humanitarian aid operations. These social inferences to gender often affect efficient and effective humanitarian aid operations during disaster relief, which in turn greatly contributes to either the failure or success of disaster relief operations. This means that the humanitarian logistics operations is the dependent variable while masculine independency, authority command, feminine and juvenile dependency, economic dependence, mobility dependence and social norms on gender form the independent variables in this study.

The humanitarian relief medicine and food supplies purchased as well as the inventory of relief aid materials stored in disaster relief warehouses at any given time is informed by the social norms, masculine independency and feminine dependency. This is to mean that the culture of the affected communities has a major role to play when humanitarian logistics organisations are making decisions on how to provide disaster relief services to the affected persons. Mobility dependency on the other hand affects transportation and distributions decisions that these logistics firms make in disaster relief situations. The mode of transport and channels of distribution settled on is often determined by the mobility situation of the affected geographical areas and how accessible they are. Humanitarian logistics operations are therefore not a stand-alone initiative and in many occasions, the social norms listed above have an impact on how the disaster relief operations are carried out.

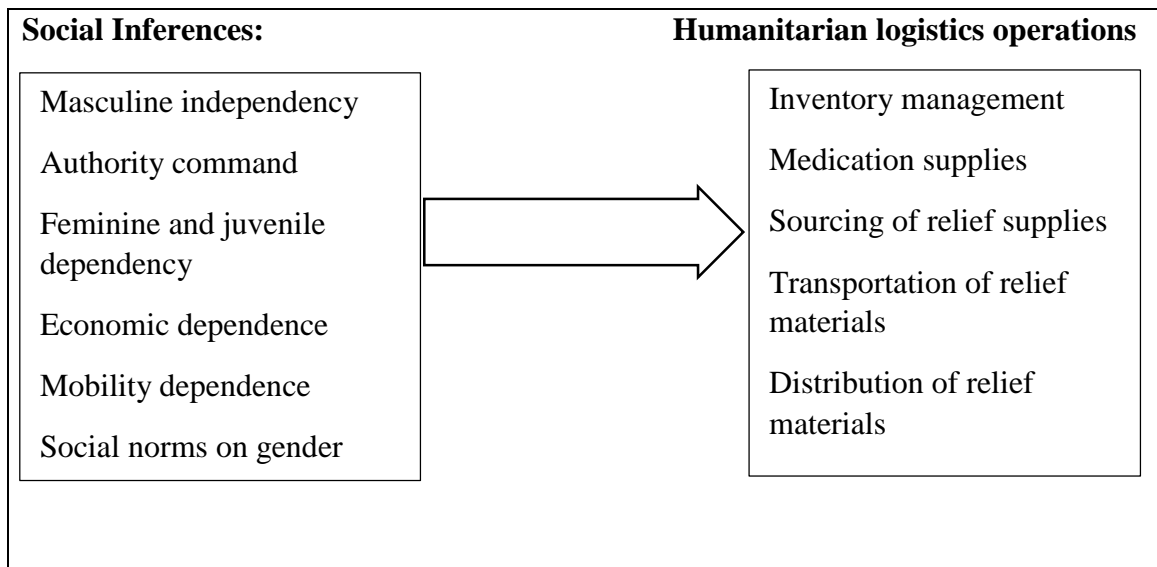


Figure 2.1: Conceptual Framework

Developed from (Thomas and Kopezak, 2005)

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the technique used to perform this study. It specializes on the following: research design, study population, data collection, and data analysis.

3.1 Research Design

The study adopted a descriptive survey design; which was particularly chosen because it is most appropriate in ensuring all the research questions raised above are answered as it makes it possible to merge both quantitative and qualitative data to analyze and illustrate the various social inferences to gender as perceived by the humanitarian aid population and how these are likely to influence humanitarian aid operations in disaster relief situations. Kothari (2003) explains that in a descriptive design both quantitative and qualitative data is used when a researcher intends to describe a situation or a condition as it is. In this particular case, disaster relief situations are looked into in relation to how social inferences to gender are likely to influence humanitarian logistics operations. Being a descriptive survey, there is no chance of any important sample elements being left out (Kothari, 2003).

This design is also cost effective and convenient for data gathering and has good statistical significance. However, researcher's bias may play a role in many ways. For example, the choice and wording of questions for the questionnaire may be influenced the bias of the researcher. The researcher may also make subjective choice about which information to record and emphasize in the findings (Hamideh, 2011) .With this in mind, the researcher

intends to handle this weakness by use of both closed and open ended questions that will provide the respondents with room to provide any other information that is relevant to the study but may have not been captured in the questionnaire.

3.2 Target Population

The study focuses on humanitarian logistics organizations in Kenya that are involved in disaster relief situations. According to the Kenya National Disaster Operations Center (NDOC) head count of 2018, there are 32 organizations that are directly involved in humanitarian logistics in Kenya 10 of which are directly involved in social issues around gender in relief aid operations. While some focus on developmental activities during disaster relief, others zero in on relief aid.

This study paid more attention on the social inference to gender on logistics in humanitarian organizations that offer relief aid because, according to a study done by Mahmoud in 2015, gender disparity in disaster relief operations remains a key challenge and an obstacle for humanitarian organisation to provide the much needed aid to the affected communities in a manner that is likely to deliver more value to the recipients while still addressing the social inferences on gender in the same affected communities.. This research was therefore a census and the researcher intends to administer questionnaires to the 10 humanitarian organizations that are involved in social issues surrounding gender in relief aid activities.

3.3 Data Collection

The study used primary data that were administered to operations, procurement and supply chain, humanitarian logistics managers, officers and their assistants. The operations managers are often in direct contact with the humanitarian communities and understand the day to day operational activities and involvement with such communities. Humanitarian logistics managers who play a key role in coordinating inventory management of humanitarian supplies as well as their transportation and distribution to humanitarian disaster affected areas, supply chain and procurement managers as they are tasked with the responsibility of sourcing for and purchasing of the required humanitarian relief food and medication supplies. These three managers will be able to give information on how social inferences to gender on humanitarian logistics are likely to affect their operations during disaster relief. Finally, the researcher also collected data from distribution assistants who are often on the ground distributing relief materials to the affected communities and hence come into first hand contacts with the effects of social inferences to gender on humanitarian logistics in disaster relief operations.

Section A of the questionnaire provided general information about the organization. Section B was to establish how humanitarian organizations overcome the social inferences to gender during disaster relief while section C was to determine the impact of social inferences to gender on humanitarian relief operations in Kenya.

The primary data contributed immensely towards achieving the research objectives. Drop and pick later strategy was adopted to manage the entire data collection process. The researcher picked out these for staff members in each of the humanitarian organizations that were approached for data collection during the study. The researcher administered questionnaires to three middle level managers and one lower cadre employees in each of these 10 organizations, which brings the sample size to a total of 40 respondents.

3.4 Data Analysis

The statistics gathered was analyzed using statistical equipment and broken down according to descriptive statistics following studies questions. Use of measures of dispersion, (preferred deviation), measures of principal tendency (mode, median and suggest) and possibilities were also used to breakdown the data and to answer the first objective of the research which was to establish how humanitarian organizations overcome the social inferences to gender during disaster relief while the second object that sought to determine the impact of the social inferences to gender on humanitarian relief operations in Kenya was analyzed using regression analysis. The researcher also use Pearson's Correlation coefficient to find out if the variables are have any relationship with each other. These measures were used to summarize, organize, examine and interpret the numeric statistics using the model:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + b_6 X_6 + \epsilon$$

Where

Y= Humanitarian Logistics Operations

a= Y intercept

$b_1, b_2, b_3, b_4, b_5, b_6$ = Regression coefficients of respective variables

ε = error term

x_1 = Masculine independency

x_2 = Authority command

x_3 = Feminine and juvenile dependency

x_4 = Economic dependence

x_5 = Mobility dependence

x_6 = Social norms on gender

3.5 Summary of Research Methodology

The table below gives a breakdown of how data was collected, and analyzed or interpreted to address the two research objectives in this study. For the first objective which was to establish how humanitarian relief organizations overcome the social inferences to gender in relief operations, measures of frequency and central tendencies were used to interpret the information gathered while for the second objective that looked into determining the impact these social norms to gender have on humanitarian logistics, regression analysis was done to determine if there is any relationship between the two variables and how strong this relationship is likely to be.

Table 3.1 Summary of Research Methodology

Objective	Data Collected	Data Analysis
<p>To establish how humanitarian organizations overcome the social inferences to gender during disaster relief.</p>	<p>Ways through which humanitarian logistics organizations handle the social inferences to gender during disaster relief operations.</p>	<p>Measures of frequency, central tendencies and positions to identify how humanitarian organizations overcome the social inferences to gender during disaster relief operations.</p>
<p>To determine the impact of social inferences to gender on humanitarian relief operations in Kenya.</p>	<p>The social inferences on gender if any, that affect humanitarian logistics in disaster relief operation either positively or negatively.</p>	<p>Regression analysis to determine the relationship between social inferences on gender and humanitarian logistics operations.</p>

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

4.0 Introduction

This chapter provides a summary of the data analysis, study findings and the discussion of the results. The findings were presented on the social inference to gender and logistics in disaster relief operations in Kenya. The study focused on the social inference to gender on humanitarian logistics in disaster relief operations and while at it sought to know which of the social inferences to gender are likely to affect the humanitarian logistics activities and how the humanitarian logistics organizations position themselves to overcome these social inferences to gender. The study was based on the following specific objectives; to establish how humanitarian organizations overcome the social inference to gender during disaster relief and to determine the impact of social inference to gender on humanitarian relief operations in Kenya.

This section therefore gives an overview of the response rate as analyzed from the number of questionnaires received from responses, an analysis of the response on the general information, the response on the social inferences to gender and humanitarian logistics in disaster relief operations and the impact of social inferences to gender on humanitarian logistics in disaster relief operations and finally provides a contrast between the research findings from this study and what other researchers had previously found out on the same topic.

4.1 Response Rate

The Sample size of 40 respondents was targeted by the study from which 36 filled in and submitted the questionnaires leading to a response rate of 90%. This response rate was considered satisfactory for subsequent analysis and reporting as per a study done by Mugenda and Mugenda in 1999.

4.2 General information

The study sought to establish the information on the respondents employed in the study with length of period responded has served the organization, employment status and level of management he serves. These bio data point out the respondents' appropriateness in answering the questions (Sutton 2015). From the data collected, 60% of the respondents had served for more than 5 years, 30% had served for 3 to 5 years and 10% of the respondent had served for 2 years and below.

The respondents were required to indicate their current positions in the organizations 50% of the respondents indicated they were serving as lower level managers, 30% indicated they were middle level managers and the rest 20% of the respondents indicated they were senior employees. As pertaining to their employment status, 40% of the respondents were on permanent and pensionable terms, 37.5% were on while 22.5% were casual employees.

Table 4. 1 Summary of General Information:

Level of Management	Percentage of Respondents
Lower Level	50%
Middle-Level	30%
Top Level	20%
Employment Status	Percentage of Respondents
Permanent and Pensionable	37.5%
Casual Employees	22.5%

4.3 Social inferences to gender on humanitarian logistics in disaster relief operations

Results in table 4.2 shows that during war catastrophes, men seem to be more independent and therefore need less humanitarian assistance with a mean of 3.78, during catastrophes, humanitarian aid workers and organizations are more concerned with women with a mean of 3.67, during catastrophes, humanitarian aid workers and organizations are more concerned with children with a mean of 3.53, women are most affected during war catastrophes with a mean of 4.01, during war catastrophes, men require more medical attention with a mean of 3.93, children are more affected during war catastrophes with a mean of 3.85, children and women are more target during disease calamities with a mean of 3.77, men remain economically independent in times of disaster occurrences with a mean of 3.64, women are considered to be economically dependent during disaster occurrences with a mean of 3.89.

Equally, women receive quicker relocation assistance during evacuation exercises in flood disaster relief situations with a mean of 3.78, men are not given preference during evacuation exercises in flood disaster relief situations with a mean of 3.91, old men are given preference during evacuation exercises in disaster relief situations with a mean of 3.69, old women are given preference during evacuation exercises in disaster relief situations with a mean of 3.80, women require more assistance during famine catastrophes with a mean of 3.71 and children require more assistance during famine catastrophes with a mean of 3.92. This clearly indicates that respondents agreed (mean ≥ 3.5) social inferences affects gender during disaster relief with an overall mean of 3.79. The findings are in line with the literature review in that there are varied ways in which cultural and similarities and differences affect social inferences to gender, (A Norenzayan - 2002). These cultural norms also define how women and men dress, address each other and their position in decision-making.

Table 4. 2 Social inferences to gender on humanitarian logistics

Social Inferences	Mean	Std dev
During war catastrophes, men seem to be more independent and therefore need less humanitarian assistance	3.78	.92
During catastrophes, humanitarian aid workers and organizations are more concerned with women	3.67	1.01
During catastrophes, humanitarian aid workers and organizations are more concerned with children	3.53	1.11
Women are most affected during war catastrophes	4.01	.90
During war catastrophes, men require more medical attention	3.93	.98
Children are more affected during war catastrophes	3.85	1.12
Children and women are more target during disease calamities	3.77	.89
Men remain economically independent in times of disaster occurrences	3.64	.99
Women are considered to be economically dependent during disaster occurrences	3.89	.86
Women receive quicker relocation assistance during evacuation exercises in flood disaster relief situations	3.78	1.13
Men are not given preference during evacuation exercises in flood disaster relief situations	3.91	.95
Old men are given preference during evacuation exercises in disaster relief situations	3.69	.94
Old women are given preference during evacuation exercises in disaster relief situations	3.80	.99
Women require more assistance during famine catastrophes	3.71	1.00
Children require more assistance during famine catastrophes	3.92	1.01
Overall mean and standard deviation	3.79	.99

Source: Research data, (2018)

4.4 Humanitarian logistics operations

Results in table 4.3 shows that the purchasing decisions of humanitarian aid supplies are affected by social norms on gender with a mean of 3.51, purchasing of personal items in disaster relief situations are mostly target to women and children with a mean of 3.61, distribution of medical supplies during natural catastrophes are mostly targeted to women with a mean of 3.55, distribution of medical supplies during natural catastrophes are mostly

targeted to children with a mean of 3.67, medical inventory of humanitarian aid are mostly made up of supplies consumed by men during war with a mean of 3.70, food stuff inventory of humanitarian aid are mostly made up of supplies consumed by women during famine with a mean of 3.62, food stuff inventory of humanitarian aid are mostly made up of supplies consumed by children during famine with a mean of 3.56, distribution of relief materials is first targeted to children during flood disaster relief exercises with a mean of 3.71, transportation of relief supplies during drought and flood calamities is mostly targeted to women affected areas with a mean of 3.83.

Transportation of relief supplies during drought and flood calamities is mostly targeted to children affected areas with a mean of 3.97, transportation of relief supplies during war calamities is mostly targeted to men affected areas with a mean of 3.72, humanitarian aid policies in your organization take into account social inferences to gender with a mean of 3.68, acquisition, transportation and distribution of humanitarian aid supplies strategies are often reviewed to consider social inferences to gender with a mean of 3.65, distribution of relief materials is first targeted to women during flood disaster relief exercises with a mean of 3.49 and distribution of relief materials is first targeted to men during war disaster relief exercises with a mean of 3.34

This clearly indicates that respondents agreed (mean ≥ 3.50) social inferences affects gender during disaster relief with an overall mean of 3.64. The findings are in line with the literature review in that the idea of most calamities requires a brief reaction. Therefore, supply chains have to be structured and dispatched at the double in spite of the fact that the records of the situation is enormously limited.

Table 4. 3 Humanitarian logistics operations

Humanitarian Logistics Operations	Mean	Std dev
Purchasing decisions of humanitarian aid supplies are affected by social norms on gender	3.51	.99
Purchasing of personal items in disaster relief situations are mostly target to women and children	3.61	1.01
Distribution of medical supplies during natural catastrophes are mostly targeted to women	3.55	.95
Distribution of medical supplies during natural catastrophes are mostly targeted to children	3.67	.90
Medical inventory of humanitarian aid are mostly made up of supplies consumed by men during war	3.70	1.11
Food stuff inventory of humanitarian aid are mostly made up of supplies consumed by women during famine	3.62	.93
Food stuff inventory of humanitarian aid are mostly made up of supplies consumed by children during famine	3.56	1.02
Distribution of relief materials is first targeted to women during flood disaster relief exercises	3.49	.98
Distribution of relief materials is first targeted to children during flood disaster relief exercises	3.71	.96
Distribution of relief materials is first targeted to men during war disaster relief exercises	3.34	1.12
Transportation of relief supplies during drought and flood calamities is mostly targeted to women affected areas	3.83	.89
Transportation of relief supplies during drought and flood calamities is mostly targeted to children affected areas	3.97	.94
Transportation of relief supplies during war calamities is mostly targeted to men affected areas	3.72	1.00
Humanitarian aid policies in your organization take into account social inferences to gender	3.68	.92
Acquisition, transportation and distribution of humanitarian aid supplies strategies are often reviewed to consider social inferences to gender	3.65	.99
Overall mean and standard deviation	3.64	.98

Source: Research data, (2018)

4.5 Social inferences and humanitarian logistics in disaster relief operations in Kenya

The regression analysis was undertaken at 5% significance level. The criteria for comparing whether the predictor variables were significant in the model was through comparing the corresponding probability value obtained and $\alpha=0.05$. The results above show that the variables were significant since their corresponding predictor values were below 5%. These findings are also supported by a study (Krajewski, Malhotra and Ritzman, 2016) who said that humanitarian encloses diverse activities at diverse instances and backbone to numerous calamities. The operations are achieved with a cause to help humans to survive. However, help to permit the development of vicinity, famine aid and managing refugee homes is definitely extraordinary from the kind of help offered after a natural disaster as this comes with a unique set of dangers and challenges.

The study assessed the influence of social inferences on gender on humanitarian logistics in disaster relief operations, and the findings show that the various ways in which social inferences are made on gender have an effect on how humanitarian logistics activities are carried out in disaster relief operations.

In order to explain the percentage of variation in the dependent variable humanitarian logistics as explained by the independent variables. The researcher used coefficient of determination that was obtained from the model summary in the table 4.3. Coefficient of determination was used to explain whether the model is a good predictor.

Table 4. 4 Goodness of fit analysis of social inferences on humanitarian logistics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.931 ^a	.867	.824	.237

Source: Research data, (2018)

From the results of the analysis, the findings show that the independent variables contributed to 82.4% of the variation in humanitarian logistics as explained by adjusted R² of 82.4%, which shows that the model is a good prediction. R is the correlation coefficient which displays the relationship between variables of the study, from the result shown in the table 4.3 above there was a positive strong connection between the variables of the study as shown by 93.1%. The regression results also show that 82.4% of humanitarian logistics can be explained by social inferences (R squared =.867). This means that social inferences helps increase humanitarian logistics by 86.7 percent.

The study conducted an Analysis of Variance, in order to test the impact of the relationship between social inferences and humanitarian logistics. The findings were as shown below:

- a) Predictors: (Constant), Masculine independency, Authority command, Feminine and juvenile dependency, Economic dependence, Mobility dependence, Social norms on gender.
- b) Dependent Variable: Humanitarian logistics operations.

The model summary is presented in Table 4.7. The model summary was highly significant (p=0.000) showing that the model was functional. The model had an R square value of 0.867 indicating that the percentage of the dependent variable variance that was explained

From the study results, the regression results reveal that social inferences had overall positive significance impact on humanitarian logistics operations (p-value = 0.045) Table 4.4. The regression results also shows that at individual level, there was a statistically significant positive linear relationship between social inferences and humanitarian logistics in that the p-value is less than 0.05 (0.045 < 0.05).

Table 4. 5 T-test of social inferences on humanitarian logistics operations

Model	Un-standardized Coefficients		Standardized Coefficients	t	P Value	-
	B	Std. Error	Beta			
1(Constant)	.080	.416		.192	.847	
Masculine independency	.429	.100	.383	4.29	.002	
Authority command	.040	.014	.157	2.857	.005	
Feminine and juvenile dependency	.239	.086	.317	2.779	.007	
Economic dependence	.120	.060	.159	2.000	.049	
Mobility dependence	.134	.121	.135	2.710	.036	
Social norms on gender	.153	.132	.158	3.43	.045	

Dependent Variable: Humanitarian logistics operations

From the above table 4.5, the researcher sought to establish the extent to which social inferences impact on humanitarian logistics. The following regression equation was obtained:

$$\text{humanitarian logistics operations} = 0.08 + .429X_1 + .040X_2 + .239X_3 + .120X_4 + .134X_5 + .153X_6$$

From the above regression model holding all the other factors constant, humanitarian logistics is measured by the efficiency and effective implementation of social inferences. The results of the multiple regression model shows that there is a positive relationship between social inferences and humanitarian logistics. This implies that a single unit increase in any of the independent variables results into a corresponding increase in humanitarian logistics.

Table 4. 6 Regression model summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	P-Value
1	.931	.867	.849	.219	.867	42.212	14	53	.000

by the independent variables was 86.7%.The P – value of 0.000 (less than 0.05) implies that the model of humanitarian logistics operations is significant at the 5 per cent significance. R is the correlation coefficient which shows the relationship between the study variables. From the findings shown in the table 4.7, there was a strong positive relationship between the study variables as shown by 0.931.

Table 4. 7 T-test of social inferences on humanitarian logistics

Model	Un-standardized Coefficients		Standardized Coefficients	T	P – Value
	B	Std. Error	Beta		
1(Constant)	.080	.416		.192	.847
Masculine independency	.429	.100	.383	4.29	.002
Authority command	.040	.014	.157	2.857	.005
Feminine and juvenile dependency	.239	.086	.317	2.779	.007
Economic dependence	.120	.060	.159	2.000	.049
Mobility dependence	.134	.121	.135	2.710	.036
Social norms on gender	.153	.132	.158	3.43	.045

Dependent Variable: Humanitarian logistics operations

From the above table 4.5, the researcher sought to establish the extent to which social inferences impact on humanitarian logistics. The following regression equation was obtained: humanitarian logistics = 0.08+.429_{X1}+.040_{X2}+.239_{X3} +.120_{X4}+.134_{X5}+.153_{X6}.

From the above regression model holding all the other factors constant, humanitarian logistics is measured by the efficiency and effective implementation of social inferences. The results of the multiple regression model shows that there is a positive relationship between social inferences and humanitarian logistics. This implies that a single unit increase in any of the independent variables results into a corresponding increase in humanitarian logistics.

Table 4. 8 ANOVA (F-test) of social inferences on humanitarian logistics

Model		Sum of Squares	Df	Mean Square	F	P- Value
1	Regression	10.912	6	1.819	32.48	.045
	Residual	1.680	30	.056		
	Total	12.592	36			

Source: Research data, (2018)

- a) Predictors: (Constant), Masculine independency, Authority command, Feminine and juvenile dependency, Economic dependence, Mobility dependence, Social norms on gender
- b) Dependent Variable: Humanitarian logistics operations

From the study results, the regression results reveal that social inferences had overall positive significance impact on humanitarian logistics (p-value = 0.045) Table 4.4. The regression results also shows that at individual level, there was a statistically significant positive linear relationship between social inferences and humanitarian logistics in that the p-value is less than 0.05 ($0.045 < 0.05$).

The Karl Pearson's coefficient of correlation (simple correlation) is a measure of the degree of relationship between two variables and it is denoted by r. Basically, a Pearson product-moment correlation attempts to draw a line of best fit through the data of two variables, and the Pearson correlation coefficient was conducted to examine the relation between variables =, r, indicates how far all the data points are to the line of best fit (how well the data points fit this new model/line of best fit). The Pearson correlation coefficient, r, can

take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. The results show that there is a high correlation between feminine and juvenile dependency and humanitarian logistics operations with a value of 0.713, masculinity independence and humanitarian logistics operations with a value of 0.684 and social norms on gender and humanitarian logistics operations with a value of 0.60. The correlation coefficients on the main diagonal are always 1.0, because each variable has a perfect positive linear relationship with itself.

Table 4. 9 Pearson Correlation Coefficients Matrix

Pearson Correlation	Humanitarian Logistics Operations	Masculinity independence	Authority Command	Feminine and Juvenile Dependency	Economic Dependency	Mobility Dependency	Social Norms on Gender
Humanitarian Logistics Operations	1.000	.684	.557	.713	.506	.426	.609
Masculinity independence	.684	1.000	.725	.456	.743	.561	.611
Authority Command	.557	.725	1.000	.632	.478	.700	.534
Feminine and Juvenile Dependency	.713	.456	.632	1.000	.484	.618	.662
Economic Dependency	.506	.743	.478	.484	1.000	.444	.557
Mobility Dependency	.426	.561	.700	.618	.444	1.000	.576
Social Norms on Gender	.609	.611	.534	.662	.557	.576	1.000

Correlation is significant at the 0.01 level.

Source: Research data, (2018)

4.6 Discussion of Research Finding

The research findings indicate that the society has inferences on gender that are often deducted from an assumption that exists in the environment that has been stricken by catastrophes of different natures. (Charles Sanders,2010) mentions that one of the ways through which inferences are derived is by deduction which involves deriving logical conclusions from premises known or assumed to be proper. These social inferences to gender are often defined by cultural norms as Norenzayan (2002). The research findings equally confirmed that how they perceive gender is highly determined by their cultural beliefs and practices.

Information gathered from the study does explain that whenever men are perceived to be stronger and able to protect themselves, disaster relief operations are often tailored to suit the needs of female and children affected by the catastrophe. This information converges with (Murray, 2005) which explain that in instances where men are deemed to be in position of sustain harsh conditions during disasters; women and children are rescued first. (Arminas, 2005) explains that purchase of disaster relief materials resembles having a customer for the first time since it is almost impossible to recognize what they need, when they want it and how much quantity they will require. Similarly and as confirmed from the research findings, disaster relief situations vary on a case-by-case basis and none is exactly similar to the other. For that reason, humanitarian logistics organizations are rapidly adopting flexible strategies to ensure that the much-needed support is available and more importantly tailor made to suit the needs of the affected persons.

The findings from this study show that more people are venturing into the supply of disaster relief materials to the humanitarian organizations and it is only matter of time before this businesses grow into a large commercial endeavor. (Thomas and Kopezack's, 2005) conclude that disaster and relief catastrophe remedy operations are now growing into diverse commercial sectors. Disaster relief situations are unique and the specifications of assistance delivery are also highly unique. Humanitarian supply chain resilience therefore exposes the operations managers to understanding this dynamics and be able to render assistance in a speedy yet efficient manner that looks to solve the problems catastrophe affected communities face. (Waters and Rinsler, 2017) research findings as well as the information gathered on this study tend to agree with this notion. (Ernst, 2003) concludes that humanitarian logistics organisations need to advance the manner in which they carry out their disaster relief operations and what a better point to start from than putting into consideration the social inferences to gender and humanitarian logistics in disaster relief operations.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the study's findings, draws appropriate conclusions and recommendations for humanitarian logistics practices with reference to social inferences on gender. Similarly, this chapter outlines the limitations faced on the study and also provides suggestions for areas further research in related areas and concepts.

5.1 Summary of Key Findings

The research findings show that indeed, humanitarian logistics during disaster relief operations are greatly affected by social inferences to gender. The respondents did confirm that they have put in place mechanisms of ensuring that these social inferences to gender are taken into consideration. Some of the humanitarian logistics organizations confirmed that they conduct a detailed assessment of the community they intend to assist. This assessment includes an in-depth analysis of the social settings, culture and norms of the community to understand how these particular communities are set up in order to identify how the social inferences on gender are likely to affect disaster relief operations in these areas. This is followed up by the identification and development of strategies that will enable the such organisations to provide the much needed relief assistance to these communities while still being in cognizance of the social inferences to gender on humanitarian logistics in disaster relief operations.

The research findings confirm that social inference to gender on humanitarian relief operations indeed have a wide range of impact on the operations of any disaster relief exercise. For example, when procuring food supplies for relief aid, they have to lay more emphasis in their purchases on nutritional foodstuffs for children and expectant mothers. This is because in the assessment of these organisations, regardless of the nature of the disaster, the two groups are usually the most vulnerable and highly affected as compared to the other members of the community. The humanitarian logistics managers and distribution assistance in most of the organisations that responded to the questionnaire did confirm that indeed social inferences to gender do have adverse impact on humanitarian logistics in disaster relief operations and while some of the organisations as mentioned above have already put in place mechanisms of ensuring that these fundamental subject matter in disaster relief exercises is not ignored, there is still room to take this up further.

5.2 Conclusion

Humanitarian logistics in disaster relief operations does not take place in a vacuum. Everything is done in and for a community. It is therefore necessary that the different players in disaster relief space is aware of the various aspects of social inferences to gender on humanitarian logistics.

Social inferences to gender certainly have an impact on humanitarian logistics in disaster relief operations. The impacts range from the composition of relief aid supplies that are purchased from time to time, inventory set of medical supplies, distribution channels that humanitarian logistics organizations settle for and even the different modes of transport

used when dispatching and distributing these relief material to mention but a few. This then necessitates the need for humanitarian logistics players in disaster relief operations are in cognizance of how the society views gender and most importantly how these social inferences on gender affect their operations. It does not stop at that, humanitarian logistics organizations need to further develop relevant policies, regulations, strategies and workable mechanisms of ensuring that they take into account this important subject matter when carrying out disaster relief operations.

5.3 Recommendations

While all the players in humanitarian logistics in disaster relief operations are doing an exceptionally great job in ensuring that the affected persons and communities are taken care of through both the short and Long-term disaster relief initiatives, there is an urgent need for the humanitarian organizations to seek an understanding of the social inference to gender and how these affect the disaster relief operations in times of catastrophe. It is with this knowledge that such organizations will be able to make better and informed decisions during policy formulation and implementation with regards to relief aid initiatives which in return will ensure that the much-needed assistance reaches the affected communities whole putting into account such issues. To the other piece that will guarantee better success in disaster relief operations is a deep-dive look into Long term that will basically incorporate sustainability into disaster relief operations

5.4 Study Limitations

50% of the respondents work at lower level of operations in the humanitarian organisations meaning that they have limited contribution in decision making hence it was hard for them to provide strategic information in understanding the social inferences in different communities in details.

Within the period of study, there was no case of relief aid that would have led the researcher to collecting primary data to understand the social inferences from a practical point of view. These officers are spread all over the country and therefore travelling to their specific locations was a challenge.

5.5 Suggestions for Further Research

The data collection instrument that was used for this study was a standard questionnaire, which usually limits the ability to collect information beyond the questions contained within the survey instrument. Future research may use different data collection tools to allow for capture of more detailed evidence.

Future research studies should include a sustainable perspective into the study to expound on the possible ways through which the donor agencies and humanitarian logistics organizations can influence affected communities to involve themselves in economic activities that will enable them have alternative sources of livelihoods that will ensure their survival even after the relief aid organizations stop providing the disaster relief assistance.

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