

# The Influence of Organizational Flexibility on Humanitarian Aid Delivery Effectiveness in Humanitarian Organizations in Somalia

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**Abstract:** The general objective of this study was to determine the influence of organizational flexibility on humanitarian aid delivery effectiveness in humanitarian organizations in Somalia. With regard to research methodology, this study used positivism approach and correlational design. A census survey of 494 senior managers targeted. Findings from this study showed that there was a significant and positive relationship between financial flexibility, operational flexibility and resource allocation flexibility and humanitarian aid delivery effectiveness. Besides, there was moderating effect of environmental complexity on relationship between organizational flexibility and humanitarian aid delivery effectiveness. Based on the findings of this study, it was concluded that financial flexibility, operational flexibility and resource allocation flexibility increases overall organizational flexibility within humanitarian aid organizations in Somalia. Therefore, humanitarian organizations should create flexibility in financial, operations and resources allocation to realize effectiveness.

**Keywords:** Organizational flexibility, Humanitarian aid delivery effectiveness, NGOs, Somalia.

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## 1. INTRODUCTION

Organizational flexibility is the ability to respond to various demands from dynamic and complex environments, or more formally, the organization's capability to identify major changes in the external environment and quickly commit resources to new courses of action in response to those changes (Weiss & Hoffman, 2007). The impact of flexibility on performance has been explored in highly uncertain environments and found to be a factor in achieving competitive advantages (Thomas, 2014). Organizations that deliver emergency responses are required to have flexibility in their organizational culture and systems for them to play a central role in relief aid in emergency and complex environmental contexts (Thomas, 2014). The dynamic and changing nature of crises calls for flexibility, rather than rigid, bureaucratic direction (Thomas, 2014). This observation is further supported by Wise (2006), who suggested that collective humanitarian organization action should be conceived as adaptive management. There is need for organizations to develop flexible and adaptable planning and decision processes that strongly encourage learning and change. Relief organization leaders must adopt spontaneous response positions of organizational flexibility to ensure that those affected by humanitarian disasters receive quick support and assistance (Wise, 2006). According to Slack (1991), there are four types of system flexibilities. These are volume flexibility, which is the flexibility in the total amount of aid delivered by the organization; delivery flexibility, which is the speed and timeliness of the delivery of the humanitarian aid; mix flexibility, which is the flexibility created in the mix of relief delivered to the beneficiaries; and finally, new product flexibility, which is the flexibility of the organization to new relief items requested by the beneficiaries.

Adaptive management and organizational learning are particularly helpful in describing the dynamics of the international humanitarian relief arena operations and in assisting leaders to assess difficulties often associated with delivery of

humanitarian aid within turbulent environments (Scholten, et al., 2010). Research by Hall, et al. (2012), has found that there has been a link between flexibility and effectiveness. However for the case of humanitarian organizations, there is usually no warning between the time when disaster strikes and the time humanitarian aid interventions are needed (Beamon & Balcik, 2008). Humanitarian organizations should be capable of responding with flexibility and resources. Therefore, humanitarian agencies will be more responsive to their external environment if they are more flexible and they build shared commitments around their core organizational values instead of building flexibilities around key organizational policies and rules (Weiss & Hoffman, 2007). Organizational flexibility is becoming a sought-after competitive element in today's fast-paced and changing world. Strategic leadership is related to the ability to create flexibility and organizational learning (Dunford, et al., 2013). The impact of flexibility on performance has been explored in highly uncertain environments and found to be a factor in achieving competitive advantages (Thomas, 2014). Organizations that deliver emergency response should to have flexibility in their organizational culture and systems for them to play a central role in relief aid in emergency and complex environmental contexts (Thomas, 2014).

While humanitarian aid agencies have served communities from all corners of the world, Africa has been one of the biggest hosts and beneficiaries of humanitarian aid assistance for the last three decades (Active Learning Network for Accountability and Performance in Humanitarian Action [ALNAP], 2009). Humanitarian assistance provided in recent years by humanitarian organizations in Africa has saved hundreds of thousands of lives (Smock, 1996) while Somalia has been one of the top beneficiaries of humanitarian aid in Africa (Global Humanitarian Assistance [GHA], 2013). The humanitarian organizations deliver relief aid comprising of food and non-food items including medicine, shelter, cash, livestock's and firms inputs across Somalia (GHA, 2013).

Over the past two decades, Somalia has become one of the world's worst and most enduring humanitarian crises. It is one of the most insecure places in the world, most costly and extremely difficult in delivering humanitarian aid (Bradbury 2010). According to Bradbury (2010), Somalia is the most enduring example of modern state collapse in the world and one of the longest-running humanitarian crises. It is also one of the most restrictive and insecure environments for humanitarian actors and one of the most insecure environments for humanitarian personnel.

In the past decade, Somalia has been among the top ten recipients of humanitarian aid (Bradbury, 2010; GHA, 2013) and receives one of the highest proportion of its Official Development Assistance (ODA) as humanitarian aid, consistent with the prevailing situation where insecurity severely limits access and opportunities for development programming (Global Humanitarian Assistance [GHA], 2012). It was not until 2013 that the world learned the true human impact of the severe food insecurity and famine in Somalia where an estimated 257,500 people died between October, 2010 and March, 2012. It is widely acknowledged that the international aid delivery was too slow which depended largely on the effectiveness of the top and or executive leaders of the humanitarian organization to act accordingly (Hammond & Lee, 2012). Research on the influence of organizational flexibility on humanitarian aid delivery effectiveness in humanitarian organizations in Somalia remains scarce. This study therefore seeks to make a contribution in this area.

### **1.1 General Objective:**

The general objective of this study was to determine the influence of organizational flexibility on humanitarian aid delivery effectiveness in humanitarian organizations in Somalia

### **1.2 Specific Objectives:**

This study was guided by the following specific objectives;

1. To assess relationship between financial flexibility and humanitarian aid delivery effectiveness in Somalia
2. To examine the relationship between operational flexibility and humanitarian aid delivery effectiveness in Somalia
3. To assess relationship between resource allocation flexibility and humanitarian aid delivery effectiveness in Somalia
4. To determine to what extent environmental complexity moderate the relationship between organizational and humanitarian aid delivery effectiveness in Somalia

### 1.3 Justification Of The Study:

This study is useful in understanding the relationship between organisational flexibility and humanitarian aid delivery effectiveness. It is useful to different stakeholders including humanitarian organisations leaders, policy makers, researchers and academicians.

## 2. LITERATURE REVIEW

### 2.1 Humanitarian Aid Delivery Effectiveness:

Humanitarian organizations either deliver relief, or development or both areas. Humanitarian organizations involved in humanitarian relief confront a complex working environment (Stephenson & Schnitzer, 2009). Humanitarian aid is interchangeably used with humanitarian assistance which as defined as humanitarian assistance and action designed to save lives, alleviates suffering and maintains and protect human dignity during and in the aftermath of emergencies (ALNAP, 2009). Humanitarian aid is different from other forms of foreign assistance and development Aid. For instance, humanitarian aid is intended to be governed by the principles of humanity, neutrality, impartiality and independence. It is also intended to be short-term in nature and provide for activities in the immediate aftermath of a disaster (GHA, 2013). Humanitarian service delivery is crucial function of the humanitarian agencies. Further, the effectiveness of the aid delivery is key parameter in assessing the success of the humanitarian agencies in delivery of their mandates.

Discussion on aid effectiveness, either in development or humanitarian aid has been going for many decades and became a big concern as more and more actors get involved in delivery of aid in fragile economies and states. Many development and humanitarian assistance were subjected to criticism (Maxwell et al., 2008). The effectiveness of humanitarian aid continues to be a critical challenge. Aid volume is still increasing, but, there is frequent change in incentives, donor structure and fragmentation of aid. In fact, according to GHA (2013), humanitarian global funding has doubled from 2000 to 2013 with United States dominating the top 30 governments in terms of its contribution to humanitarian assistance over the past 10 years, giving one third of all humanitarian assistance over this period. While development aid is aimed for sustainable developmental projects, most of the humanitarian aid is aimed to respond to emergencies and crisis which have of huge social and economic negative impact on the victims. In this sense, humanitarian aid is aimed to safe live and restores the livelihoods of the affected victims (Roberts, 2010).

Walden, et al. (2010), indicated that major organizations including Oxfam and United Nations High Commission for Refugees (UNHCR) have adapted four benchmarks used in responding to humanitarian emergencies in delivering aid. These include: the speed and timelines and of the response in delivery of humanitarian aid, coordination of aid and finally the appropriateness of relief (aid) provided by the humanitarian aid delivery organizations. These three measures were used to measure humanitarian aid delivery effectiveness in this study as discussed in the subsequent sections.

The need for speed in aid operations is paramount (Steets, Hamilton, Binder, Johnson, Koddenbrock, & Marret, 2009). The speed of the humanitarian aid response determines how many lives can be saved during emergencies to achieve humanitarian goals (Benini, et al., 2009). However, research by Walton, Mays and Haselkorn (2011) indicated that perception of the speed of the response by the stakeholders plays critical roles in delivery of humanitarian aid.

Researchers also argued that speed in delivery of humanitarian aid is based on the premise that the victims cannot wait and urgency is of essence to effectively respond to emergencies that create humanitarian aid (Murray & Clarke, 2008; Benini, & Conley, 2007). According to Walton et al. (2011), organizations should be able to measure average response speed to reaching beneficiaries during humanitarian aid delivery. However, some scholars claim that achieving speed in disaster response requires trade-offs between speed and other factors such as quality, cost and coverage (Benini & Conley, 2007). The ability of the humanitarian agency to procure, transport, and receive humanitarian aid supplies at the site of humanitarian relief effort in critical factor in the speed of humanitarian aid after a disaster (Kovacs & Spens, 2007).

Studies of humanitarian aid delivery have indicated that complex humanitarian crises provide challenging setting for coordination (Stephenson & Schnitzer, 2006). Coordination of disaster assistance is critical for effective humanitarian aid operations (Moore, Eng & Daniel, 2003). However, the coordination of relief in international humanitarian crises has long been viewed as troubled with problems of inadequate inter-agency coordination (Stephenson & Schnitzer, 2009). Research by Stephenson (2005) noted that, progress of the flow of resources among agencies and increases the

accountability, effectiveness and impact of aid operations critically depend on the improvement of the level of coordination among humanitarian aid organizations. The coordination of aid delivery is demanding as it involves requirements typical of an emergency situation that include for example, high uncertainty and necessity for rapid decision making and response under resource constraints (Walden, et al., 2010).

There is lack of consistencies in the quantity; quality and appropriateness of relief distributed to the beneficiaries in humanitarian organization (Hofmann, et al., 2004). The major task that any humanitarian organization cannot deny is which humanitarian aid interventions are actually appropriate and which are justified as humanitarian responses in any situation (Levine, et al., 2011). There are various ways of helping affected populations. Cash grants can be provided, supplies can be donated, technical assistance given, food provided. The quality and appropriateness of the assistance are more important than its size, its monetary value or the rapidity with which it arrives (Cozzolino, 2012). One major challenge of aid effectiveness worth mentioning is the drop in aid which often occurs in the transition phase between the end of a humanitarian crisis and the beginning of development financing. According to Dodd, Schieber, Cassel, Fleisher and Gottret (2007), fragile states also present opportunities for donors, on average each US\$ 1 spent on conflict prevention generates over US\$ 4 in savings to the international community.

### **2.2 Organizational Flexibility:**

Humanitarian interventions are associated with frequent and stressful emergencies and combative decision making (Stephenson & Schnitzer, 2009). The need for flexibility in terms of both resources and operations is particularly inevitable to humanitarian organizations which operate in a constantly changing and unpredictable environment (Scholten, et al., 2010). In this study, financial flexibility, operational flexibility and resource allocation flexibility were used to the measure flexibility construct (Scholten, et al., 2010; Thomas, 2003; Apostu, 2013).

### **2.3 Financial Flexibility:**

One of the biggest challenges of the humanitarian organizations' CEOs is how to source funding that is unrestricted and or is extremely flexible and can be used both for a quick response to new emergencies and to fill short-term funding gaps (Fawcett & Fawcett, 2013). The race for donor funds has also created competition among organizations that want to be the first to get funds for humanitarian aid response (Nickerson, 2013). Due to competition in humanitarian aid funding, humanitarian organization leaders have created inflexible systems with conditions that put direct control of funders over implementers, thus creating perfect inflexibility (Curtis, 2001).

Another essential condition for humanitarian response to be effective is the availability of sufficient financial resources (Nickerson, 2013). According to Nickerson (2013), humanitarian aid organizations coordinate billions of dollars in relief responses annually to victims of natural disasters, civil conflicts and wars. Their chief task is the timely mobilization of financing and goods from international donors and administering relief to the vulnerable beneficiaries at disaster sites across the globe. However, there are challenges of financial flexibility for the majority of organizations when responding to emergencies (Thomas, 2003).

Most of the humanitarian organizations lack core funding and work on a short term project basis. In regards to this, donors' decisions and preferences are critical in terms of overall staffing and operational capacity. Therefore, as humanitarian agencies seek to expand their presence and operations, they are inevitably influenced by the actions of the donors which are sometimes donor-led political projects that are not flexible enough to respond to humanitarian emergencies (Collinson, et. al, 2013). Every humanitarian organization needs to have sufficient cash flow from various income sources so as to pay out expenses and other obligations when they are due. Some organizations create reserves by setting aside cash in addition to the regular bank fund balances for use when regular cash flow is disrupted (Thomas, 2003).

The scope of humanitarian activities can be adversely affected by the funding systems upon which aid agencies depend (Kovács & Spens, 2011). The reality in the current practice is that donors provide funding as and when the disaster occurs, rather than during the pre-disaster phase (Sheppard, et al., 2013). The funding mechanism has been blamed for many of the inefficiencies in humanitarian operations as they can directly and indirectly affect the effectiveness and efficiency of disaster response as well as the flexibilities of the humanitarian organizations (Sheppard, et al., 2013). There is need for organizations to develop flexible and adaptable planning and decision processes that strongly encourage

learning and change (Wise, 2006). Organizations responding to highly turbulent situation often seek flexibility through flexible structures and processes to effectively perform (Gómez-Gras, 2009; Lichacz, 2013). Organizations require leaders who can confront a reality based on knowledge and foster strategic flexibility to achieve improvements in organizational performance. Result from Fernandez-Pérez, Verdú-Jóver, and Benitez-Amado (2012) study has shown that there is positive influence of their organizational flexibility on organizational performance. Further, the authors found that large sized organizations use different and unique adaptive tactics such as large income generating activities, creating an unrestricted pool of funds in reducing funding uncertainties. A longitudinal study by Mosley, Maronick and Katz (2011) on financial uncertainties in nonprofit organizations showed that effective strategies to funding uncertainty are critical in an organization's future success and position. Therefore, this study hypothesizes that;

H1: There is a significant positive relationship between financial flexibility and humanitarian aid delivery effectiveness in Somalia

### **2.3.1 Operational Flexibility:**

Humanitarian relief organizations have a common need for flexible operations including programmes, logistics and information technology solutions. These can help improve the responsiveness and the visibility of the organization in responding to emergencies in relation to aid delivery (Falasca & Zobel, 2011). In addition, Goffnett, Helferich and Buschlen (2013), indicated that humanitarian logistic capabilities for handling disasters have not developed at the same pace, which has resulted in waste and inefficiencies that need attention to improve response services. According to Pettit and Beresford (2009) out of billions of dollars donated to humanitarian programs each year, nearly 30% is reportedly wasted due to delay inflexibilities. Consequently, greater effort must be made to ensure that every disaster response is efficiently executed with appropriate flexible logistic and program support. Flexibility and quality programming as well as timely impact remain the primary role against which humanitarian action is judged (GHA, 2013). Strategic leaders of humanitarian organizations do not want or need traditional skill-based training programmes with fixed and predetermined arrangements. Instead, they want flexible and process-based programmes that are geared to their own needs; programmes that are concerned with the strategic and operational issues they have to cope with on a daily basis (Apostu, 2013). As a result, there has been a break away from generic, skill-based traditional approaches to leadership training to more bespoke, process-based programmes designed to develop the untapped potential of individual leaders (Apostu, 2013).

The mismatch between global humanitarian needs and the resources available to humanitarian organizations have on forced strategic leaders the need to further emphasize resource allocation flexibility in preparedness and resilience (Heaslip, 2013). Fawcett and Fawcett (2013) also indicated that at times of emergencies, humanitarian organizations are challenged in diverting resources which are already committed to other projects or programmes in response to the provision of immediate humanitarian assistance to new emergencies. According to the authors, few organizations have built flexible systems which will lead to more effective humanitarian aid. It is also argued that the humanitarian response community needs to employ new and flexible programming ideas at scale when in crisis, where evidence exists to show they are more effective (GHA, 2013).

Being sensitive to context and being flexible across different situational limits are therefore necessary leadership traits (Hochschild, 2010). In fact, like any corporate organizations, strategic flexibility in humanitarian organization can be a competitive advantage so as to give them the ability to adapt to the changing environments and deliver aid effectively (Thomas, 2014). This argument is supported by Angus (2012), who indicated that when organizations stop thinking that flexibility and ability to change and being adaptable and agile are important, then they probably have less impact and effectiveness. The leader's appraisal of the situation, his or her leadership behaviour and the managerial routines are very critical in humanitarian aid delivery. However, the greatest importance is attributed to the leader's judgment of the situation (Sjöberg, Wallenius & Larsson, 2006). Research by Lu, Goh and Souza (2013) has shown that there is a strong demand for greater effectiveness and efficiency in humanitarian operations flexibilities as almost 60%-80% of the expenses incurred in humanitarian operations are due to inflexibilities and uncoordinated operations.

Researchers have argued that flexibility is the key to successful organizational performance due to the dynamic and uncertain environment organizations operate in (Dreyer & Grønhaug, 2004; Awward, 2011). Organizations tend to have flexible resource pools and diverse portfolios of strategic options, when organizations possess strategic flexibility (Tang & Wang, 2010). Moreover, strategic flexibility has positive influence on the competitive advantage of an organization

(Awward, 2011). Several research studies on organizational flexibility have been carried in different sectors around the world. For instance, Ogunmokun and Esther (2012) researched on 111 exporting firms in China and investigated the relationship between organizational flexibility and organizational performance. The authors employed structured questionnaires of five-point scale on their firms' level of flexibility to environmental changes. The author's findings supported the claim that organizational flexibility is related to organizational performance and survival. Therefore, this study hypothesizes that;

H2: There is a significant positive relationship between operational flexibility and humanitarian aid delivery effectiveness in Somalia

### ***2.3.2 Resource Allocation Flexibility:***

Non-profit CEOs are expected to pay more attention to building effective organizations with limited resources (Phipps, & Burbach, 2010). Moreover, humanitarian aid interventions are often of short duration where capacity and resources are strained, insecurity limits access to populations and where the space for analysis and research is constrained (Hofmann, et al., 2004). On other hand, leaders demonstrate drive, commitment and a remarkable ability to mobilize people and resources; while on the other hand, they are criticized for dictating to organizations, being unaccountable, and failing to adapt to changing circumstances (Apostu, 2013). A majority of the humanitarian organizations lack sufficient resources during peak recovery times of humanitarian aid delivery. Humanitarian organization leaders must know what resources including equipment, materials, and people should be available so that they can be deployed to the locations where they are most needed (Fawcett & Fawcett, 2013). Research findings by Angus (2012) indicated that many leaders interviewed claimed that they often have to be able to make quick decisions, often with imprecise or incomplete information making the best use of their experience. Swiftness to act and mobilizing resources is essential for effective humanitarian response.

Donors want to know about impact, because they have a responsibility to ensure that public funds are well spent, and because they need to choose where to allocate scarce public resources (Hofmann, et al., 2004). Humanitarian aid agencies mostly receive restrictive humanitarian resources and strategic leaders do not have flexibility in reallocation of funds to different priorities during emergencies without prior approvals (Curtis, 2001). While some donors try to show more flexibility, humanitarian assistance is generally still characterized by short term planning cycles, pressure to demonstrate countable measures and value for money to meet donor funding requirements (Apostu, 2013). There are a number of challenges for humanitarian resource reallocation flexibilities during aid responses. The urgency of crises often necessitates that relief staff are immediately assigned to the next mission after a disaster. The staff flexibility is needed and the leader's psychological support during this transition is critical. Due to the low remuneration and high stress, the turnover of relief workers can be as high as 80%, particularly for the field logistics personnel (Lu, et al., 2013). In addition, sometime, agencies implementing aid interventions to conduct impact assessment is reduced by the lack of flexibility in the international humanitarian aid system (Hofmann, et al., 2004). The authors further indicated that once an initial emergency assessment is done and approval by donors for resources for a particular intervention have been identified, donors are unlikely to be sufficiently flexible enough to allow for the reallocation or redirection of resources (Hofmann, et al., 2004).

A study by Vijande, Sánchez and Trespalacios (2012) on a sample of 181 medium-sized Spanish firms has revealed that flexible adaptation to the environment improves organizational performance. Further, the study has indicated that organizational learning shapes firms' strategic flexibility. The author employed quantitative data using structural equation modeling (SEM) to evaluate the conceptual framework of the research. Meanwhile, Agha, Alrubaiee, Jamhour (2012) surveyed seventy-seven managers in the paint industry in the United Arab Emirates (UAE) and measured the competitive advantage of organizations through flexibility and responsiveness. The authors have found that both flexibility and responsiveness have a significant positive effect on organizational performance. Further the authors indicated that flexibility has a higher impact on organizational performance than responsiveness. Survey findings on 1023 senior managers of organizations registered with Australian Government's trade, investment and education promotion agency by Voola and Muthaly (2005), showed that organization strategic flexibility drives market orientation and leads to superior organizational performance. Contrary to this, a study by Radomska (2015) on 150 of small, medium entities in Poland has shown no relations between organizational flexibility and financial performance. A quantitative research study of owners and managers of small and medium-sized enterprises (SMEs) of 140 organizations in Indonesia measured the relationship between firm orientation, flexibility and performance using structural equation modelling. The result of the study showed that strategic flexibility plays a mediating role between firm orientation and firm performance (Arief, Thoyib, Sudiro, &

Rohman, 2013). This finding was supported by Yu (2012) who indicated that strategic flexibility positively influences firm performance. Besides, study finding also showed that human resource flexibility and has a potential relationship to organizational performance (Bhattacharya, Gibson & Dot, 2005). Therefore, this study hypothesizes that;

H3: There is a significant positive relationship between resource allocation flexibility and humanitarian aid delivery effectiveness in Somalia

#### **2.4 The Moderating Role Of Environmental Complexity:**

Complexity is defined as the measure multiplicity in environmental factors such as customers, suppliers, socio-political and technology in which the organization operates (Mason, 2007). Further, Baburoglu (1988) defined environmental complexity as increased environmental uncertainty and the unexpected changes of occurrences in an impermanent state. Any understanding of the role and performance of humanitarian leaders must incorporate the environment in which they work (Apostu, 2013). Today's international humanitarian organizations widely agree that they must improve the speed, quality and effectiveness of their humanitarian response. However, this goal has to be achieved against a backdrop of insecurity, scarce resources, climate change, lack of and access to infrastructure as well as increasing scrutiny from a wide range of stakeholders (Dickmann, et al., 2010). Besides, disasters and emergencies, security and poor infrastructure were taken as variables used to measure environmental complexities within Somalia in this study (Hofmann, et al., 2004; Bachelet, Mountain, & Amos, 2011; Hammond & Lee, 2012).

Somalia is a disaster prone country with drought, epidemics and floods as the main natural disasters affecting millions of Somali people. In addition to continuous conflict, frequent droughts, floods, has created situation of acute food security and humanitarian crisis, for large number of people on a regular basis. There have been subsequent droughts from year to year and major famines in 1995 and 1996 and between 1999 and 2002 and again 2005, 2006 and 2007 as well as 2011(GHA, 2013). Floods are another major disaster that claim many lives and create humanitarian disasters. The Somali government does have strong capacity to support the Somali population with social amenities. By any measure, at current state, any crisis in Somalia is likely to drag on for some time, and millions of Somalis will be in dire need of humanitarian aid assistance for months if not years, strengthening the need for a long-term approaches and long-term pledge from the international community is inevitable (Bachelet, et al., 2011). Shifts in the dynamics of the complex political and security situation in Somalia have also put pressure to better options of delivering humanitarian aid assistance while reconsidering the nature and focus of international engagement in Somalia (Hammond & Lee, 2012)

Conflict and insecurity in many parts of the country forced humanitarian agencies to manage operations remotely from Nairobi or from some parts of Somalia which are partially secure. This have made difficult to accurately assess needs, control and monitor and follow-up on actions and aid delivered to larger part of constituencies mostly in south central Somalia for over ten years due to security reasons (Bachelet, et al., 2011). Metcalfe, Haysom and Gordon (2012) argued that insufficient, weak infrastructure presented operational challenges to the operations of humanitarian organization in fragile environment. Chakravarty (2011) indicated that infrastructural factors, such as the accessibility of a road network, airports, electricity, play a critical role in the performance of humanitarian operations especially logistics. For instance, the presence of airfields such as airports and airstrips close to the disaster locations will ease the supply of aid assistance. However, the situation is worsened by lack of effective governments in fragile economies which cannot repair road and other infrastructures after natural disasters before relief provisions can be delivered to the beneficiaries (Yan & Shih, 2009). In regard to the above, Kunz and Reiner (2012) carried out meta-analysis of humanitarian logistics research and revealed that the highest proportion of previous research studies, mainly focused on transports infrastructure that affects the delivery of humanitarian supplies.

The need for flexibility in terms of both resources and operations are particularly applicable to those humanitarian organizations which operate in a constantly changing and unpredictable environment (Scholten, et al., 2010). In fact, like any corporate organizations, strategic flexibility in humanitarian organization can be a competitive advantage in that it gives them the ability to adapt to changing environments (Thomas, 2014) and deliver aid effectively. Further, research has established that environment as control variables or moderator affects the top management in strategic decision-making process (Carpenter et al., 2004). In relation to the previous research studies discussed, this study hypothesizes that;

H4 Environmental complexity significantly moderates the relationship between organizational flexibility and humanitarian aid delivery effectiveness in Somalia

### 3. METHODOLOGY

This study used positivist approach as the data was collected objectively through a survey method and quantitative data analyzed through statistical analysis to test research hypothesis with minimal interference of the researcher (Creswell, 2003). Sekaran (2000) suggested six guidelines in developing research strategy or design. These are mainly; purpose of the study, researcher extent within study, and type of the study, the time horizon, unit of analysis of the study and location or setting of the study. The authors argued that any research study must be able to point out research the six guidelines in the design process. For instance, the purpose of a study can be exploratory, descriptive, and hypothesis testing. Exploratory is preferred for new exploration; descriptive is used when characteristics of the research need to be described; and hypothesis testing used to explore a problem using hypotheses (Sekaran, 2000). Therefore, the purpose of this study was hypothesis testing. Furthermore, a correlational research design was used to determine to what degree two variables are related, however, correlational research does not prove cause and effect relationship; rather, it indicated an association between two or more variables (Creswell, 2008).

The population was composed of 494 senior management members of international and national NGOs working in Somalia that were registered with Somalia NGO Consortium (Somalia NGO Consortium, 2014). This study adopted census for the quantitative components of this study (Collins, Onwuegbuzie & Jiao, 2007). Self-administered questionnaires were used as data collection technique where the respondents read and record the responses without the presence of the interviewer or the researcher (Zikmund, 2003). A total of 37 scale items were used to measure the constructs in this study. Constructs have been operationalized using 7-point Likert scales, ranging from (1=strongly disagree) to (7=strongly agree). 7-Point Likert scale is more capable than 5-point Likert scale as it allows greater discrimination and finer differences between people (Colman, Norris & Preston, 1997).

Quantitative data gathered from the questionnaires was analyzed using Statistical Package for Social Sciences (SPSS). Data was screened in terms of coding, missing data, identification of outliers (i.e. normal probability plot) and test the data normality (i.e. using kurtosis and skewness statistics) while descriptive statistics such as measure of central tendencies mainly mean, and standard deviation was computed and analyzed (Sekaran, 2000).

Both simple and multiple regression analysis were used to test the relationship between independent, moderating and dependent variables of this study. The inferential statistic of simple regression analysis was used to determine whether statistical significance did or did not exist between each independent variable and dependent variable; thus, determining whether any of the research hypotheses were rejected. Each of the hypotheses was tested using simple regression. Simple regression analysis was adopted because, in order to calculate the contribution of each predictive variable on the outcome variable, each hypothesis was needed to be verified separately (Field, 2009). In this study, each hypothesis separately describes the relationship between each independent variable and the dependent variable. Moderated regression analysis was performed to test the moderating effect of environmental complexity on the association between the components of organizational flexibility as predictor variable and humanitarian aid delivery effectiveness as outcome variable. Moderated regression analysis provides the most straightforward method for testing hypotheses in which an interaction is applied (Arnold, 1982; Williams, Grajales & Kurkiewicz, 2013; Brown, 2009).

### 4. RESULTS

#### 4.1 Demographics:

The response rate was 78% (n=383) of the total population of 494 managers of which 35% were female and 65% male. 76% (n=290) of the respondents worked with international NGOs while 24% (n=93) worked with national NGOs.

#### 4.2 Descriptive Statistics:

##### 4.2.1 Humanitarian Aid Delivery Effectiveness:

The score for humanitarian aid delivery effectiveness (HADE) was computed as the simple average of the scores of the sub-constructs; timeliness, speed, coordination and appropriateness of humanitarian aid response. Results indicated that the four subconstructs had an average score of more than 5 in the likert scale (7-point scale ranging from 1 referring to strongly disagree to 7 referring to strongly agree). Besides, timeliness of the aid response (THAR) has the lowest average score of 5.12 with standard deviation of  $\pm 1.25$ . Furthermore, coordination of humanitarian aid response (CHAR) had the highest average score of 5.45 with standard deviation of  $\pm 1.13$ . The other variables; speed of humanitarian aid response

(SHAR) and appropriateness of humanitarian aid response (AHA) had mean score of 5.33(standard deviation of ±1.17) and 5.17 (standard deviation of ±1.30) respectively. The average mean score of HADE latent variable was 5.27 reflecting that respondents were agreeable to statement of each of the variables (Table 1). The average standard deviation of ±1.06 showed that the respondents were not too much dispersed from their mean score. Furthermore, result of the reliability of the total observed variables used to measure the dependent constructs (HADE) using the Cronbach alpha was 0.895 which is was higher than each of the stand-alone subconstructs.

**Table 1 Descriptive Statistics of Humanitarian Aid Delivery Effectiveness**

ITEM	Description	N	Measure items	Mean	Std. Deviation
SHAR	Speed Of Humanitarian Aid Response	383	3	5.33	1.17
THAR	Timeliness of Humanitarian Aid Response	383	3	5.12	1.25
CHAR	Coordination of Humanitarian Aid Response	383	2	5.45	1.13
AHA	Appropriateness of Humanitarian Aid Response	383	2	5.17	1.30
<b>Average Score (Humanitarian Aid Delivery Effectiveness)</b>			<b>10</b>	<b>5.27</b>	1.06

**4.2.2 Financial Flexibility:**

Four observed variables were used to measure financial flexibility (FF). The descriptive statistics of the four observed variables were analyzed with a mean of 4.63 (standard deviation ±1.608) for FF1; mean of 5.09 (standard deviation ±1.26) for FF2; 5.08 (standard deviation ±1.27) for FF3 and 5.16 (standard deviation ±1.27) for FF4. The mean score of the four Likert scale items was used to compute the aggregate score of financial flexibility (FF) with average score of 4.99 and a standard deviation of ±1.353 (Table 2). This indicated that the average score tended towards 7 point Likert scale of strongly agreed. The average standard deviation of 1.353 showed that the respondents were not too much dispersed from their mean score. A reliability test using the Cronbach alpha of the three observed variables measuring financial flexibility (FF) was found to be 0.794 while the Cronbach alpha reduced if any of the observed variables was omitted from the analysis (Table 2).

**Table 2 Descriptive Statistics of Financial Flexibility**

Descriptive Statistics		N	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
Item	Description				
FF1	My organization leaders are able to create Un-restricted funding for the organization		4.63	1.608	.809
FF2	My organization leaders are able to source for sufficient funding or funding from different sources on time	383	5.09	1.264	.689
FF3	My organization leaders are able to maintain general reserves for the organization	383	5.08	1.271	.727
FF4	My organization leaders are able to mobilize funding quickly	383	5.16	1.270	.747
<b>Average Score (Financial Flexibility)</b>			<b>4.99</b>	<b>1.353</b>	

**4.2.3 Operational Flexibility:**

The ability of the leader to design flexible programing, create flexible logistics and make quick decisions when responding to humanitarian emergencies were used to measure operational flexibility (OF). Descriptive results showed that the mean score of the three Likert scale items was used to compute the aggregate score of operational flexibility (FF) with an average score of 5.10 and a standard deviation of ±1.30 (Table 3). This indicated that the average score tended towards 7 point Likert scale of strongly agreed. The average standard deviation of ±1.30 showed that the respondents were not too much dispersed from their mean score. In addition, the three observed variables had a Cronbach alpha of 0.76 which tended to 1, indicating that these items were measuring the same latent variable.

**Table 3 Descriptive Statistics for Operational Flexibility**

Descriptive Statistics						
Item	Description	N	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted	
OF1	My organization leaders are able to design flexible programing	383	5.15	1.250	0.722	
OF2	My organization leaders are able to create flexible logistics for humanitarian emergencies	383	5.03	1.260	0.666	
OF3	My organization leaders are able to make quick decisions when responding to humanitarian emergencies	383	5.13	1.395	0.704	
<b>Average Scores(Operational Flexibility)</b>			<b>5.10</b>	<b>1.30</b>		

**4.2.4 Resource Allocation Flexibility:**

Resource allocation flexibility (RAF) was measured by three observed variables, namely; the ability of the leader to re-allocate funds and organizational priorities quickly and as well as to re-assign organizational staff immediately to respond to humanitarian emergencies. The results of the descriptive statistics showed the highest mean rating of 5.14 (±.136) for RAF3 while the lowest mean rating was 4.75 (±1.51) for RAF1 item. The average mean for the subconstruct was 4.97 with a standard deviation of ±1.40 indicating that the respondents strongly agreed with the variables. In addition, the three observed variables had a Cronbach alpha of 0.792 which tended to 1, indicating that these items measured the same latent variable (Table 4). The Cronbach alpha decreased when any item was deleted which showed the strength of each item measuring the sub- construct, resource allocation flexibility (RAF).

**Table 4 Descriptive Statistics of Resource Allocation Flexibility**

Descriptive Statistics						
Item	Description	N	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted	
RAF1	My organization leaders are able to re-allocate funds quickly from current programs to new humanitarian emergencies	383	4.75	1.51	0.786	
RAF2	My organization leaders are able to re-allocate organizational priorities quickly	383	5.04	1.33	0.682	
RAF3	My organization leaders are able to re-assign organizational staff immediately to respond to humanitarian emergencies	383	5.14	1.36	0.689	
<b>Average Score (Resource Allocation Flexibility)</b>			<b>4.97</b>	<b>1.40</b>		

**4.2.5 Environmental Complexity:**

Environmental complexity (ENV) was measured using three subconstructs; disasters and emergencies (DE), insecurity (INS) and poor physical infrastructure (PPI) in a 7 point likert scale with 1 being strongly disagree and 7 being strongly agree. Insecurity (INS) had the highest mean score of 5.49 with standard deviation of ±1.47 while poor physical infrastructure (PPI) had the lowest score of 5.46 with standard deviation of ±1.39. This indicated that insecurity poses more challenges than other variables when responding to humanitarian emergencies (Table 5). Reliability test using the Cronbach alpha of the seven observed variables measuring environmental complexity were found to be 0.830 which is was higher than the Cronbach alpha each of the stand-alone subconstructs.

**Table 5 Descriptive Statistics of Environmental Complexity**

Item	Description	Mean score	Std. Deviation
DE	Disasters and Emergencies	5.14	1.60
INS	Insecurity	5.49	1.47
PPI	Poor Physical Infrastructure	5.46	1.39
<b>Average Scores (Environmental Complexity)</b>		<b>5.36</b>	<b>1.49</b>

**4.3 Hypothesis Testing:**

Multiple regression analysis was conducted on the relationship between the predictor and the outcome variables. Result from multiple regression summary models showed that forty two percent (42.4%) of the observed variance in humanitarian aid delivery effectiveness was explained by three predictor variables ( $R^2=0.655$ , Adjusted  $R^2=0.429$ ) as shown in table 6.

**Table 6 The Goodness-Of-Fit of the Relationship between the independent variables (FF, RAF, OF) and Humanitarian Aid Delivery Effectiveness (HADE)**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.655 <sup>a</sup>	.429	.424	10.35131

a. Predictors: (Constant), RAF, FF, OF

Result on the overall significance of the model showed that the value of the F ratio = 94.918 ( $p<0.01$ ). This indicated that there was significant linear relationship between three independent variables and the dependent variable (Table 7).

**Table 7. The Overall Significance of the Relationship between the Independent Variables (FF, RAF, OF) and the Dependent Variable (HADE)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30511.150	3	10170.383	94.918	.000 <sup>b</sup>
	Residual	40609.675	379	107.150		
	Total	71120.825	382			

a. Dependent Variable: HADE  
 b. Predictors: (Constant), RAF, FF, OF

Results indicated that there was a statistically significant positive relationship between financial flexibility (FF) and humanitarian aid delivery effectiveness (HADE) ( $\beta_1=0.763$ ,  $t=4.391$ ,  $p<0.01$ ). Further, results on the relationship between operational flexibility (OF) and humanitarian aid delivery effectiveness (HADE) showed significant positive relationship ( $\beta_1=1.083$ ,  $t=4.205$ ,  $p<0.01$ ). Finally, results on the relationship between resource allocation flexibility (RAF) and humanitarian aid delivery effectiveness (HADE) showed significant positive relationship ( $\beta_1=1.083$ ,  $t=4.205$ ,  $p<0.01$ )

**Table 8. The Coefficients Significance of the Relationship between the Independent Variables (FF, OF, RAF) and Dependent Variable (HADE)**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.969	2.788		8.239	.000
	FF	.763	.174	.239	4.391	.000
	OF	1.083	.257	.258	4.205	.000
	RAF	.930	.233	.241	3.996	.000

a. Dependent Variable: HADE

In summary, this study supported the hypotheses that there was a statistically significant positive relationship between the three independent variables (Financial flexibility, operational flexibility and resource allocation flexibility) and humanitarian aid delivery effectiveness (HADE) (Table 8).

**4.4 The Moderating Role Of Environmental Complexity:**

Moderated regression analysis was performed to test the moderating effect of environmental complexity on the association between the components of organizational flexibility and humanitarian aid delivery effectiveness. The

moderating effect was computed by use of hierarchical multiple regressions by testing the main effects of the independent variable (organizational flexibility) and moderator variable (environmental complexity) on the dependent variable (humanitarian aid delivery effectiveness) in the first model. Secondly, the interaction between Organizational flexibility and environmental complexity was included in the model to test the change in variance. However, the significance of the independent variable and the moderator variable was not particularly relevant in determining moderation. In this case, moderation is assumed to take place if the interaction between organizational flexibility and environmental complexity was significant.

A single item indicator representing the product of the organizational flexibility (FLEX) and environmental complexity (ENV) was formed to create an interaction term (FLEX\*ENV). The results (Table 9) showed that organizational flexibility (FLEX) and environmental complexity (ENV) explained 45.3% of the variation in humanitarian aid delivery effectiveness ( $R^2=.453$ ) in the first model. Under change statistics (Table 8), the results revealed that the  $R^2$  change increased by 0.2.3% from .453 to .474 ( $R^2$  change=.001) when the interaction variable (FLEX\*ENV] was added. However, the change was statistically significant at  $\alpha=.05$  (p-value=.0.001).

**Table 9. The Goodness-Of-Fit of the Hierarchical Multiple Regression Model**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.675 <sup>a</sup>	.456	.453	10.09096	.456	159.222	2	380	.000
2	.692 <sup>b</sup>	.478	.474	9.89259	.023	16.392	1	379	.000

a. Predictors: (Constant), Environmental Complexity(ENV), Organizational Flexibility(FLEX)

b. Predictors: (Constant), Environmental Complexity(ENV), Organizational Flexibility(FLEX), Interaction between Organizational and Environmental complexity(FLEX\*ENV)

The results showed statistically significant regression coefficients for organizational flexibility (FLEX) ( $\beta=.2014$ , p-value=.00) indicating that there was a linear dependence of humanitarian aid delivery effectiveness on organizational flexibility. Further result also showed significant relationship between the environmental complexity and humanitarian aid delivery effectiveness with ( $\beta=1.468$ , p-value=.00). Besides, the moderating effect of environmental complexity on relationship between organizational flexibility and humanitarian aid delivery effectiveness was tested (Table 10). The result indicated that the interaction variable between environmental complexity and organizational flexibility (FLEX\*ENV) was significant at  $P<0.05$ , indicating ( $\beta1=-.024$ ,  $t=-4.049$ ,  $P=.001$ ). This implied that environment complexity moderates the relationship between organizational flexibility (FLEX) and humanitarian aid delivery effectiveness (HADE). Further, the environment complexity dampens the relationship between organizational flexibility (FLEX) and humanitarian aid delivery effectiveness (HADE).

**Table 10. The Coefficients Significance of the Hierarchical Multiple Regression Model**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.706	3.548		3.581	.000
	FLEX	.829	.056	.596	14.873	.000
	ENV	.291	.066	.178	4.444	.000
2	(Constant)	-45.970	14.904		-3.084	.002
	FLEX	2.014	.298	1.448	6.763	.000
	ENV	1.468	.298	.898	4.931	.000
	FLEX*ENV	-.024	.006	-1.292	-4.049	.000

a. Dependent Variable: HADE

b. Independent variables: Environmental Complexity(ENV), Organisational Flexibility(FLEX), Interaction between Organizational and Environmental complexity(FLEX\*ENV)

## 5. DISCUSSION

Organizational flexibility in humanitarian organizations can be a competitive advantage in that it gives them the ability to adapt to changing environments (Thomas, 2014). To effectively achieve organizational flexibility in humanitarian organizations, the findings of this study, showed that financial flexibility, operational flexibility and resource allocation flexibility play a significant role. Further, this study has confirmed that one of the biggest challenges for the CEOs of the humanitarian organization is how they fundraise for unrestricted funding. Unrestricted funds are used both for quick responses to new emergencies and to fill short-term funding gaps (Fawcett & Fawcett, 2013).

This study also showed that organizational leaders tend to mobilize funding quickly and source for sufficient funding from different sources and maintain general reserves for the organization. However, the race for donor funds for humanitarian aid response has also created competition among organizations (Nickerson, 2013; Curtis, 2001). The results of this study also confirmed that leaders are challenged on the timely mobilization of funds from international donors and administering relief to vulnerable beneficiaries when emergencies and disasters occur. Previous literature showed that financial flexibility was a major challenge for a majority of organizations when responding to emergencies (Thomas, 2003). This is due to the fact that most of the funding is influenced by the actions of the donors, which are sometimes donor-led political projects that are not flexible in responding to humanitarian emergencies (Collinson, et. al, 2013).

Humanitarian relief organizations have a common need for flexible operations including programmes, logistics and information technology solutions. Furthermore, Fawcett & Fawcett (2013) indicated that humanitarian organizations are challenged in diverting resources which are already committed to other projects or programmes in order to provide immediate humanitarian assistance to new emergencies; and few organizations have built flexible systems which will lead to more effective humanitarian aid. This study revealed that leaders' ability to design flexible programming, create flexible logistics and make quick decisions when responding to humanitarian emergencies determines the operational flexibility of the humanitarian organizations. This can help improve the responsiveness and the visibility of the organization when responding to emergencies in relation to aid delivery. The results of this study also reinforced the findings of the previous studies which indicated that flexible operations in terms of programmes, logistics and decision making can improve emergency response (Pettit & Beresford, 2009; Goffnett, et al., 2013; Apostu, 2013).

Non-profit CEOs are expected to pay more attention to building an effective organization with limited resources (Phipps & Burbach, 2010). Scholars have argued that the mismatch between global humanitarian needs and the resources available to humanitarian organizations have forced leaders to further emphasize resource allocation flexibility in preparedness and resilience (Heaslip, 2013; Fawcett & Fawcett, 2013; Angus, 2012; Hofmann, et al., & Harvey, 2004). In this study, findings showed that the leaders had the ability to re-allocate organizational priorities and funds quickly to different programs and re-assign organizational staff immediately to respond to humanitarian emergencies are essential strategies in obtaining organizational flexibility.

Previous qualitative studies have pointed out that organizational flexibility in the scope of humanitarian activities is adversely affected by the funding systems upon which aid agencies depend (Kovács & Spens, 2011). Sheppard, et al. (2013), argued that donor funding mechanism has been blamed for organizational flexibilities as most of the organizations rely on donor funding. This study also indicated that organizations have to get approval to divert funds from one activity to another. This normally takes time and affects the organization's ability to effectively deliver aid that is needed urgently. Other studies indicated that humanitarian flexibilities for handling disasters have not developed at the same pace, which has resulted in waste and inefficiencies that need attention to improve response services (Goffnett, et al., 2013; Pettit & Beresford, 2009). These challenges still exist with humanitarian organizations working in Somalia as previously found by other studies. There is need for flexibility in terms of both resources and operations particularly applicable to those humanitarian organizations which operate in a constantly changing and unpredictable environment (Scholten, et al., 2010).

This study examined how flexibility in organizations influences effective delivery of humanitarian aid. This was due to the fact that there was a strong demand for greater effectiveness and efficiency in humanitarian operations flexibilities as almost 60-80 percent of the expenses incurred in humanitarian operations were due to inflexibilities within humanitarian organizations (Lu, et al., 2013). For organizations to deliver emergency responses, flexibility in their organizational

culture and systems plays a central role (Thomas, 2014). Moreover, this study hypothesized that organizational flexibility positively influenced humanitarian aid delivery effectiveness in Somalia. This study found that there was a statistically significant positive relationship between organizational flexibility (FLEX) and humanitarian aid delivery effectiveness (HADE).

This study found that disasters and emergencies, insecurity and poor physical infrastructure were the major external constraints affecting the operations of humanitarian aid organizations. Qualitative studies suggested that disasters, emergencies, insecurity and poor infrastructure are the drivers of environmental complexities within Somalia (Hofmann, et al., 2004; Bachelet, et al., 2011; Hammond & Lee, 2012). The findings of this study showed that environmental complexity dampened the relationship between organizational flexibility and humanitarian aid delivery effectiveness.

## 6. CONCLUSIONS

This study examined the relationship between organizational flexibility in humanitarian organizations and humanitarian aid delivery effectiveness and revealed that the extent to which humanitarian agencies were flexible was determined by the financial, operational and program flexibilities. However, organizational flexibilities were affected by the donors as organizations relied more on external funding. This study has confirmed that the ability of the humanitarian organizations to raise unrestricted fund is one of the biggest challenges for the humanitarian organizations. Most of the organizational funds are restricted funds and organizations may not immediately reallocate resources and priorities with the existing funding in order to respond to disasters or emergencies.

Organizational leaders who tend to mobilize funding quickly and source for sufficient funding from different sources maintain general reserves for the organization. In addition, the ability to design flexible programming, create flexible logistics and make quick decisions when responding to humanitarian emergencies determines operational flexibility of the humanitarian organizations. Further, the leader's ability to re-allocate organizational priorities and funds quickly to different programs and re-assign organizational staff immediately to respond to humanitarian emergencies is an essential strategy in obtaining organizational flexibility. This study concluded that organizational flexibilities significantly influenced how organizations effectively delivered humanitarian aid within Somalia. Therefore, like any other organization, organizational flexibility in humanitarian organization can be a competitive advantage to adapt to changing environments and deliver humanitarian aid effectively. External factors, mainly, disasters and emergencies, insecurity and poor physical infrastructure were the major external constraints affecting the operations of humanitarian organizations. Therefore, humanitarian organizations are required the ability to accommodate and integrate both the internal and external organizational environment.

## 7. RECOMMENDATIONS

Humanitarian agencies operate in turbulent and fragile environments that need organizational flexibility for response. Strategic leaders should create financial, operational and program flexibilities within their organizations. Further, the strategic leaders should develop effective strategies in raising unrestricted funds to create financial flexibilities to be flexible in responding to immediate disasters and emergencies. In summary, leaders should be able use organizational flexibility in their organizations as competitive advantage to deliver humanitarian aid effectively. Organizations are expected to be aware of the effect of external environment in which they operate as it plays an important role and can affect their actions and decision making of the leader. Organizations should be able to diagnose the context in which their organizations work and create positive outcomes from turbulent environments. Leaders should be able to create organizations and teams that have positive attitudes towards complex environments to realize effectiveness.

Although the findings of this study were useful, it had limitations based on the methodology, scope and gaps left in the discussion. Based on these limitations, several suggestions for further research were recommended. The data collected for this study was cross-sectional; longitudinal data will be needed in the future to investigate how organizational flexibility would influence effective delivery of humanitarian aid. Meanwhile, this study focused only on top management of the humanitarian organizations and therefore future research is recommended on lower level staff or both top management and staffs to compare if the results would differ significantly.

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