EFFECTIVENESS OF HUMANITARIAN LOGISTICS OF RELIEF MATERIAL AT INTERNAL DISPLACED PERSONS CAMP IN ABUJA, NIGERIA

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ABSTRACT

Over the years, disasters have displaced millions of people and has forced many people into poverty. Hence, the need for humanitarian aids to provide care and relief items for the displaced person. The purpose of this study is to assess the effectiveness of humanitarian logistics of relief materials in selected internal displaced persons camp in Abuja. It formulated one null hypothesis stating, there is no statistically significance to the effectiveness of five key component of relief material logistics. Purposive sampling method was utilized to pick Malaysian Garden IDPs camp and Area one IDPs camp for this study. Conveniency sampling was utilized to administered 120 questionnaires among the humanitarian aids organization. Principal component factor analysis was used to reduce the variables into 5 key variables (i.e., Management of items in Inventory, Storage/warehousing of items, Distribution Approach, Procurement Method and available transport facilities). The data collected was analysed using descriptive statistics and inferential statistics; T test was utilized to test the hypothesis. The result shows that there is no statistically significance to the effectiveness of Management of items in inventory (P-value= 0.278); storage/Warehouse of items (P-value= 0.469), Distribution approach (P-value=0.371, Procurement method P-value =0.135) and available transport facilities (P-value = 0.142). The study recommends among others that adequate transport facilities should be provided by the government to aid swift mobility in the IDPs camps. Also, Relief items which are frequently demanded like drugs should be stored by the aid organization for easily delivery to the IDPs when needed.

Keywords: Humanitarian aids, internally displaced person, Relief Materials, Transportation and Inventory

1 INTRODUCTION

Disasters have forcibly driven people from their usual environments over time. Man-made or natural disasters both qualify as disasters. Alobo and Obaji (2018), proposed that flooding, wildfires, and drought are examples of probable natural disasters that could cause population displacement. Acts of terrorism, banditry, civil war, religious conflicts, inter-tribal fighting, and other similar events are examples of man-made disasters. which result in people being displaced from their natural surroundings. According to Internal Displacement Monitoring Centre (IDMC, 2019) report that majority of internal displacement in low- and middle-income countries are caused by armed conflict. Disasters in high income countries like China, United State, Japan and so on are caused by natural disasters. The World Bank Reports (2016) shows that disasters have cost 117 countries an equivalent consumption loss of $520 billion a year. The report further reveals that disasters has forced over 26 million people in to poverty every year.

However, Nigeria being a growing nation, has had numerous crises that have forced many people to flee their homes, especially in the northern region. People have been forced out of their comfort zones by Boko-haram operations in the north-east of Nigeria, bandit activities in the north-west, and farmer-headers crises in the north-central of Nigeria (UN Office for the Coordination of Humanitarian Assistance (UNOCHA, 2022). But because Abuja is so close to the hotspots (i.e., Nasarawa, Kaduna, and Niger Stata), IDPs are relocating there. The internally displaced persons face a lot of hardship and health issues due to the displacement. For this reason, government official assist in providing relief materials in order to meet the basic needs of the disaster victims (Crisp, 2012). Humanitarian assistance was required to relieve the suffering of the increasing number of IDPs in Nigeria, especially Abuja. Effort has been made by the Federal Government of Nigeria to delivered right items to the disaster's victim at the right time but all effort were abortive due to ineffectiveness in the logistics of aid materials (NAMA, 2019).

An effective logistics operations are necessary for the aids organisation to lessen the victims' exposure to displacement. The main objective of humanitarian logistics for IDPs is to obtain enough goods of the proper and expected quality and distribute them appropriately and on time to the afflicted population (Whybark, 2007). Relief material logistics refers to all the activities involve in planning, procurement of relief materials, transportation, storage of relief materials, inventory, and distribution of relief materials to disasters victims (Abdul, 2018; Van Wassenhove, 2006). There are so many factors responsible for ineffectiveness of logistics of relief material, this includes; lack of funding, security challenges, procurement, poor accessibility, etc., (McLachlin and Larson, 2011; Falasca and Zobel, 2011; Beyene, 2018). However, the problem of inadequate transport infrastructural facilities, poor communication, inappropriate workflow design, poor information regarding the population of internally displaced persons, and right quality of relief materials are still a persisting problem in any disasters management. It is crucial to note that a well-coordinated relief material logistics will improve the wellbeing of internally displaced people. It is against this background this study seeks to address the problem relating to the effectiveness of logistics of relief materials in internally displaced persons camp in Abuja (i.e., Malaysian garden and Area 1, IDPs camps). The study established one null hypothesis which is: there is no statistically significant to the effectiveness of five key component of relief material logistics.

2 LITERATURE REVIEW

2.1 Theoretical Review

The logistics of relief materials from the aid organisation to the internally displaced persons camp involve a series of chain. These chains are resources and information requiring suppliers,

manufacturers, distributors, aid organizations and consumers (i.e., IDPs) to work together in transforming raw materials to finish goods. Numerous concepts have been theorised, which has resulted in the formulation of some of the relevant theories. The most common theory in supply chain management, is the system theory. The system theory was formulated by Ludwig von Bertalanffy in 1950. Systems theory is centred on the systems used to manage the supplies for the institution. The theory is based on the organisational systems (Halldorsson et al., 2007). Systems theory aims to explain a system's dynamics, constraints, conditions, and relationships as well as to illustrate principles that may be identified and applied to other systems at every level of hierarchy (Beven, 2006). Another theory that has been widely used is the Resource Based View (RBV). According to this theory, the company's resources should be taken into account when planning the supply management process. In the context of relief material logistics, mean that aids organization should plan their logistics process based on the available resources. The Network Perspective theory was introduced by Hammarkvist et. al., (1982). The theory explains and relates all of the networks that are accessible for facilitating connections between all supply management levels. Suri theory of quick response management theory states that dealing with the entire production process requires for a swift response. In the context of logistics of relief material implies that aids organization should offer quick response to disasters victim immediately the catastrophic occur. Eliyahu (1984) theory of constraint (TOC) postulates that manageable system is constrained in accomplishing more of its objectives by a very small number of limitations. There is always at least one limitation, and TOC uses a focusing process to identify the restriction and reorganize the rest of the organization around it. This means that there is at least one limitation which prohibit aid organization from achieving their sole goal in the management of relief material. The total quality management theory (TQM) postulate that all supplied material must be suitable quality. Hence, the relief organization must supply items which is of good quality to internally displaced persons at the camps.

2.2 Assessing the Factors Influencing the Effectiveness of Logistics of Relief Material

Organizational performance has been conceptualised in a variety of ways by scholars. According to Richard et al. (2009), organizational effectiveness covers three unique business outcomes: financial performance, product market performance, and shareholder return. However, since they are non-profit organisations, humanitarian organisations can assess their effectiveness by contrasting their accomplishments with their stated objectives (Anjomshoae et al., 2017). The effectiveness of relief organisation logistics is, however, influenced by a wide range of elements including management, communication, government policy, security concerns, finances, and security difficulties, affect how well humanitarian logistics operate. According to researchers such as Beyene (2018); Maon, et.al., (2009); and Tomasini and Van Wassenhove (2009), posited that humanitarian organizations lack the funding necessary for hiring and training logisticians. Despite the fact that they occasionally get financial donations from donors, their activities may experience bottlenecks due to this insufficient finance. As a result, it's possible that the correct quantity, right timing, and right quality of relief materials will not be provided. Furthermore, communication is essential during disasters because aid organizations send workers to IDP camps to gather information about disaster victims, which they then use to send the necessary supplies to the victims. According to McLachlin & Larson (2011), security issues in a particular country strongly depend on the performance of the government, which leads to a strong efficiency in the delivery of humanitarian logistics. Stefan (2015) asserts that the initial reaction stage is always challenging after a disaster and that the inadequate relief effort resulted from a lack of cooperation and coordination. Lack of gasoline supplies, difficulty getting to them to evacuate or reach them in time, and impassable roads were the main causes of the problems.

2.3 Empirical Review

There is plethora of literatures on humanitarian logistics of relief materials throughout Europe, North America, Asia, and Africa particularly Nigeria. Literatures have tried to exposed the relevant aspect in the operation of relief material logistics and how it impacts disasters victims. Nyamu (2012) investigated the effects of problems with supply chain management for humanitarian aid in Kenya. The findings showed that inadequate understanding of the role of the supply chain in humanitarian efforts, late delivery, a lack of predictability in demand, insufficient transportation infrastructure, and high transaction rates were the main obstacles to managing the humanitarian supply chain. In another study by Shiyam, et.al., (2018) looked at the variables affecting the effectiveness of humanitarian activities in India. The results of the study showed that accountability, good decision-making, and collaboration in planning improved the efficiency of humanitarian activities in India. A qualitative study on supply chain management and emergency logistics in Thailand was carried out by Shafiq and Soratana in 2019. The study looked at 73 publications and studies, of which 68 were qualitative, 2 were strictly quantitative, and 3 were a mix of the two. it was discovered that standards, rules, and procedures were crucial for streamlining supply chain management and humanitarian logistics in Thailand. Japhet (2018) conducted research on the role of disaster relief organizations in Ghana in ensuring effective and efficient humanitarian logistical services delivery. His research's findings identified key elements for successful and effective disaster relief operations. According to his research, humanitarian organizations have put emergency response plans in place despite logistical and financial difficulties. In a different study, Gbadamosi and Oluwole (2019) assessed the transportation operational difficulties faced by relief organizations (ROs) in Nigeria. According to the study's results, there are important obstacles facing Nigerian relief groups when providing emergency response services to internally displaced people. Among these include substandard roads, a lack of professionals, unethical behaviour, ineffective distribution strategies, and poor transport management.

A review of the supply chains for humanitarian assistance was done by Soneye (2014) for the victims of the ongoing flood disasters in Lagos, Nigeria (2010-2012). The study demonstrates that floods frequently occur in the affected areas between May and October, and that both natural and human-caused events are to blame. It was found that humanitarian aid is primarily obtained from close friends, neighbours, and places of worship and is given directly to victims. In the North-Eastern region of Nigeria, Oke, et.al, (2020) investigated disaster relief distribution networks for internally displaced people's camps. The researchers came to the conclusion that the distribution of aid supplies in Nigeria is not going effectively. Beyene (2018) looked at the internal forecasting elements of disaster logistics performance in Ethiopia. The author came to the conclusion that certain internal determining elements had a considerably greater impact than other variables on how well humanitarian logistics performed. Diego and Christine (2015) studied the logistics of humanitarian aid. The authors found that few groups have their own fleet and instead depend on neighbourhood transportation providers to distribute aid materials. In another study by Neeta and Liina Bibi (2018) address the logistical challenges faced by non-profit organisations in Namibia. Their investigation uncovers numerous barriers that make it difficult to serve the affected areas with effective and efficient services, including the right sourcing of relief materials, funding, transportation constraints, and difficulties recognising early aid needed. In 2017, Rucha and Abdallah looked at how supplier relationship management (SRM) affected the effectiveness of the humanitarian supply chain in Somalia for the World Food Programme (WFP). The sole goal of the study was to determine how SRM's performance affected WFP's services in Somalia. The study's findings also showed that WFP works closely with key internal staff members and logistics specialists

to supply food products to recipients that are free of flaws. Roh, et al. (2016) looked into the issues with pre-positioned warehouses, they discovered things like high asset maintenance costs, high inventory costs, an inability to predict stock levels, issues with justifying funding, IT issues, subpar products, poorly trained local workers, and a lack of warehouse capacity.

However, reviewed literatures have shown that there exists a gap in the area of distribution approach, procurement method, available transport facilities and communication. Which this study has come to fill. And also, demonstrating how effective is the humanitarian logistics in delivering relief material to the IDPs in the camp (i.e., Malaysian Garden and Area one IDPs).

3 METHODOLOGY

3.1 Target population and Sampling method

This study utilizes purposive sampling to pick two internally displaced persons camp (i.e., Malaysian Garden and Area one) in Abuja. The population of this study comprises of humanitarian aid organizations (i.e., NEMA, FEMA/SEMA, LEMA, faith-based organisation, international NGOs and national NGOs). Conveniency sampling method was utilized to administered 120 questionnaires to the aid organization at the camp through a simple random sampling.

3.2 Method of data collection and Analysis

The questionnaires used for data collection was divided into two parts. The first part comprises of socioeconomic and demographic features of the aid organization. While the second part consist of information on effectiveness of humanitarian logistics components for the aid organization to rate on five-point likert scale (i.e., 1=not effective, 2=less effective, 3= moderate, 4=effective and 5=very effective). The data gathered was analysed with bar charts, pie-chart, tables, frequencies and mean. Component factor analysis were used to factorise five-variables (i.e., Management of items in Inventory, Storage/warehousing of items, Distribution Approach, Procurement Method and available transport facilities) out of fourteen variables which was believed to have influence on effectiveness on the logistics of aid organization. Thereafter, hypothesis was tested using one sample T-test. Bootstrapping was conducted for 1000 sample to see the significance of the effectiveness of the logistics of humanitarian aids organization in their response to deliver relief items to the internally displaced person's camp. This study is rooted to system approach which claims that organizational processes are interdependent and related. As a result, for effective logistic management in IDP camps, IDP camp administration and other employees must work as a cohesive unit in order to pro-actively change and adapt to constantly changing environments. When they perform as a system, they are better able to maintain relationships, plan strategically, manage operations, and ultimately build the IDP camp's reputation for efficiency.

4 DATA ANALYSIS AND RESULT PRESENTATION

4.1 Analysis of Socioeconomic and Demographic features of Aids organization
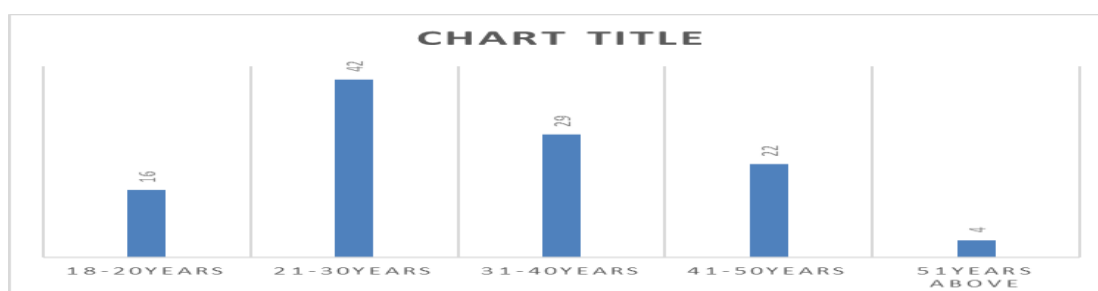
Figure 1: Age of the Respondents
Sources: Authors' Survey (2023)

According to fig. 1 above, sixteen respondents were between the ages of 18 and 20 years, twenty-nine respondents were between the ages of 31 and 40, twenty-two were between the ages of 41 and 50, and forty-two respondents were young adults between the ages of 21 and 30. Fig. 2, however, reveals that four respondents were elderly, categorized either 51 or older in age. This outcome is a revelation that the staff of aid organizations are in their active age (i.e., 21-30years). Which means that they will be effective in the distribution of relief materials.
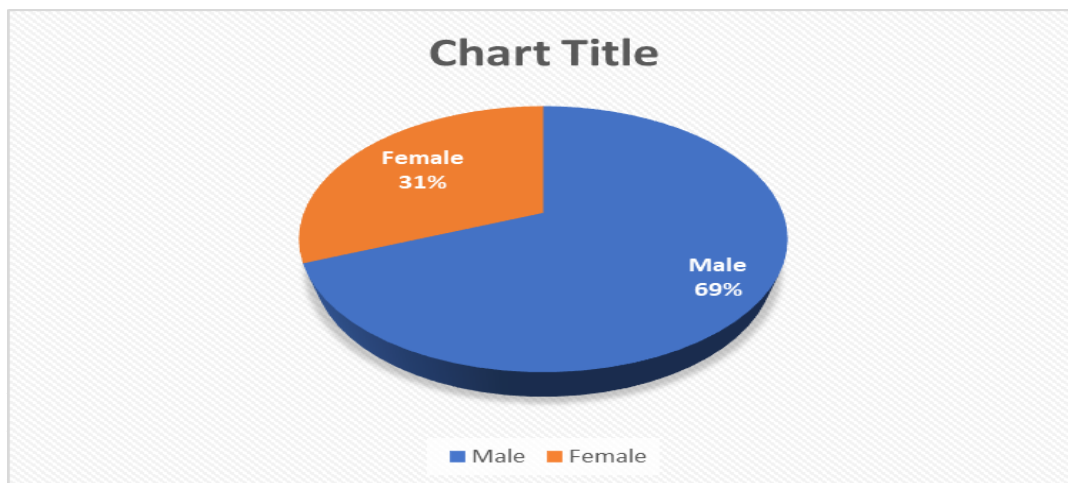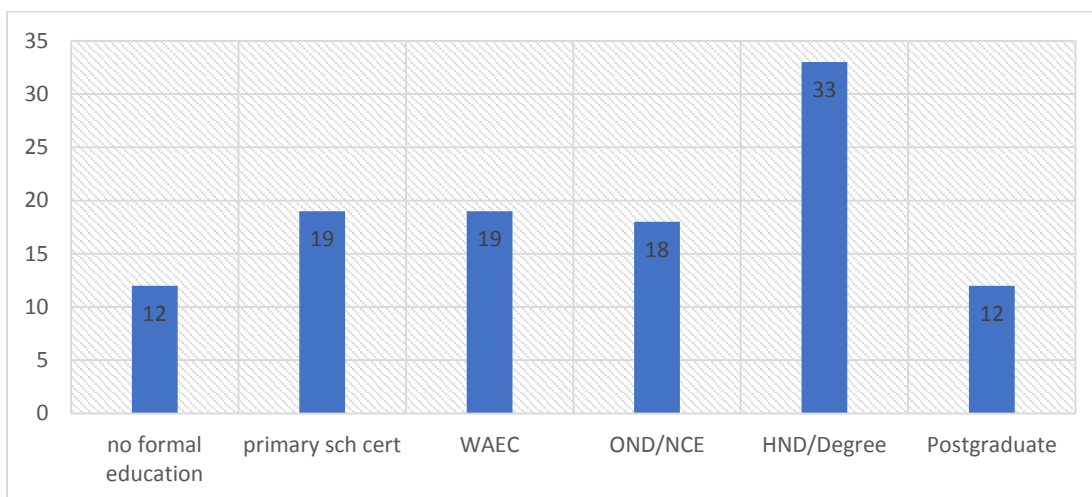

Figure 2 above shows that a greater percentage of respondents (i.e., 69%) were male and a smaller percentage (i.e., 31%) were female. Because of the nature of the work in the IDPs camp, there were more men present at the poll.

Figure 3 educational certificate possessed by the respondents
Sources: authors' Survey (2023)

According to the study in figure 3 above, the majority of respondents (i.e.,33) were graduates (HND/Degree), nineteen were WAEC and elementary school certificate holders, and sixteen of them were OND/NCE holders. Figure 3 also shows that twelve respondents each had postgraduate certificates while also being uneducated.
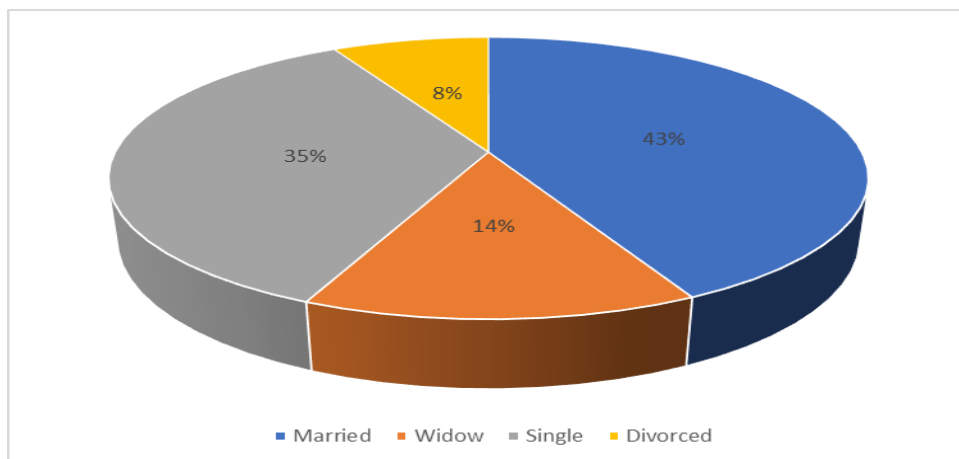
Figure 4; marital Status
Sources: Authors' Survey (2023)

Figure 4 above reveals that just 8% of respondents were divorced, whereas 35 % of respondents were single, 14 % were widows, and roughly 43% of respondents were married. This outcome enables to authors to conclude that majority of the staff of aid organization in Nigeria are Married Peoples.
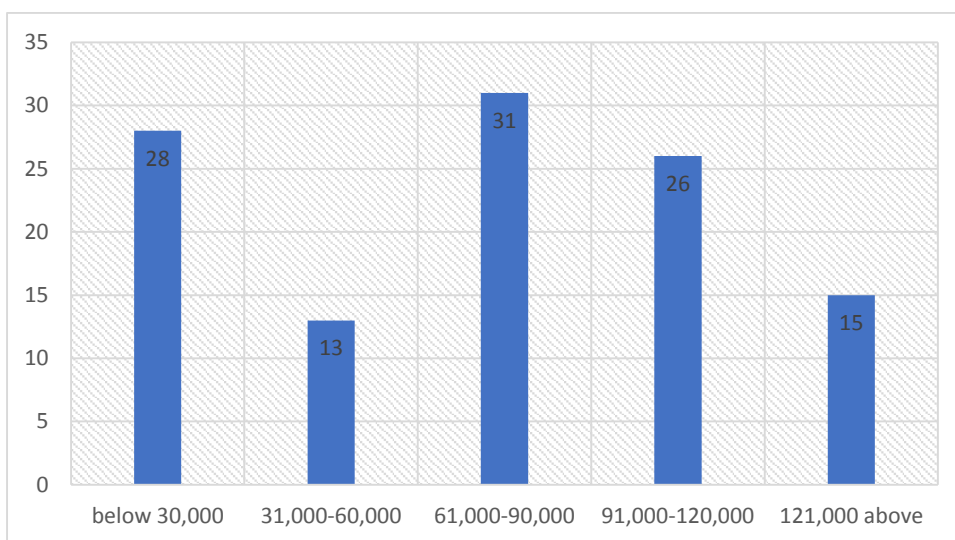
Figure 5; Monthly Income
Sources: Authors' Survey (2023)

According to fig. 5 above, 31 (i.e., 27%) respondents had income levels between ₦61,000 and ₦90,000, 26 (i.e., 23.0%) had income levels between ₦91,000 and ₦120,000, and 28 (i.e., 24.8%) had income levels below the ₦30,000 minimum wage. In a similar way, fig. 5 indicates that 11.5% (i.e., 13) of respondents had incomes between ₦31,000 and ₦60,000, and 13.3% (i.e., 15) had incomes exceeding ₦120,000.

4.2 Analysis of Products/relief Item supplied by Aid Organization at the IDPs Camp in Abuja

Table 1Crosstabulation of Aid Workers and the Product Supplied

		Product Supplied					Total
		Foods and beverages	Medication and medical care	mosquito nets	Shelters	Others	
Organization	NEMA	3	9	11	3	3	29
	FEMA/SEMA	9	3	1	8	1	22
	LEMA	3	8	9	1	7	28
	FAITH BASED ORGANISATION	1	2	2	8	7	20
	INTERNATIONAL NGO	3	1	1	1	2	7
	NATIONAL NGO	0	4	0	2	0	6
Total		19	27	24	23	20	113

Sources: Computer Analysis (2023)

The organizations providing various forms of humanitarian relief at the IDPs Camp in Abuja are listed in Table 1 above, along with the goods provided to victims of catastrophes. According to the analysis in table 1, disaster victims are primarily given medications and medical care by humanitarian aid workers (i.e., 27 responses), whereas food and beverages are the least common goods given to disaster victims (i.e., 19 responses). It can be observed from table 1 above that mosquito nets (i.e., 24 responses), shelters (i.e., 23 responses) and other items (i.e., 20 responses) were among the items supplied by the aid organizations. This outcome explained the reason for malnutrition among disasters victims in Nigeria because foods and beverages are the least items delivered by the aid's organization to disaster victims.

4.3 Analysis of Effectiveness of Logistics of Relief Item at the IDPs camp in Abuja

Table 2: The effectiveness of humanitarian logistics in delivering Relief materials

s/n	How Effective are the logistics variables	Mean (M)	St. Deviation	Remarks
1	Management of Items in Inventory	1.8230	.97496	Less Effective
2	Storage/warehousing of items	1.8319	1.0255	Less Effective
3	Distribution Approach	2.6372	1.1422	Moderate
4	Procurement Method	1.6549	1.13208	Less Effective
5	available transport facilities	1.4513	1.1951	Less Effective
6	Communication	1.0885	1.4611	Less Effective
7	Relief material handling Infrastructure	1.5398	1.2250	Less Effective
8	Length of time to receive supply	2.9204	.96494	Moderate
9	Packaging of Relief Items	3.2743	.93778	Effective
10	available logistic infrastructures	2.7876	1.1452	Moderate
11	Security arrangement	3.7257	.83717	Effective

12	Data About IDPs	2.4956	1.1735	Moderate
13	Availability of staff	3.1593	1.2856	Effective
14	workflow Design Planning	3.6283	1.1195	Effective

Sources: Authors' Survey (2023)

Table 2 above shows the mean effectiveness of humanitarian logistics elements required in delivering relief items to the IDPs at the Camp. From this analysis it is clear that the Distribution approach (M= 2.6372) utilized by the aid organization is moderately effective, an inadequate distributional framework during disaster may result to ineffectiveness in the delivery of relief items (Mohd et. al., 2018). Available logistics infrastructures (M= 2.7876), information about the IDPs (M= 2.4956), and Length of time to receive supply (M= 2.9204) were moderately effective as well. If the time taken for the relief item to be delivered is longer than expected it may result to stockout, inadequate knowledge of numbers of disaster victims and inadequate logistics infrastructure will result to ineffectiveness in the logistics process and many of the IDPs will suffer due to the fact that their needs were not met.

Similarly, available transport facilities in the camp (M= 1.4513) were perceived less effective in delivery of relief Items. Ineffective transportation or access to disaster victims will create an extreme difficult and complicated situation which may results to more causalities (Alazawi et. al., 2014; Hamza et. al., 2008; Chen and Geng, 2010). Communication (M= 1.0885) is vital in disaster logistics and it was perceived less effective by the aid staff. The goals of disaster communication include resource mobilisation, promoting healthy behaviours, coordinating the response of stakeholders, and advocating for those who are affected (Medford-Davis and Kapur, 2014).

Material handling infrastructure (M= 1.5398) were less effective in delivering of relief items. However, an effective handling infrastructure requires planning and taking automation, digitalization, and optimization into account are essential for creating an efficient storage and handling infrastructure (Bowersox, 2002). This can increase efficiency and cut costs for aid organization while ensuring that relief materials are handled securely. Procurement method (M= 1.6549) used by humanitarian aids is less effective. Hence, appropriate procurement method is essential to both aid organization and IDPs because it will improve IDPs satisfaction and hence the overall objective of aid organization is met.

Management of items in inventory (M= 1.8230), and Storage/warehousing of item (M= 1.8219) were less effective in delivering of relief item to IDPs in the camp. Inventory tied up organizational capital (Somuyiwa, 2010). Poor inventory management may result to expiration of relief item held in stocks. Two areas which when effectively managed will reduce warehouse cost is movement of relief materials and storage of items. In a similar way, Packaging of relief items (M= 3.2743), and Availability of staff (M= 3.1593) were considered as effective in delivering items to IDPs. Furthermore, security arrangement (M= 3.7257) and workflow Design (M= 3.6283) were perceived by humanitarian aid organization as effective in their logistics process.

4.4 Test of Hypothesis

$H_0 1$ there is no statistically significance to the effectiveness of five key component of relief material logistics.

In order to achieve this hypothesis stated above; components factor analysis were used to reduce the data in to five major components which was perceived as the main factors

influencing the effectiveness of logistics of humanitarian organization. Table 3 below indicate the total explained variables utilized for the factor analysis.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Management of item in Inventory	3.971	28.364	28.364	3.971	28.364	28.364
Storage/warehousing of items	1.721	12.295	40.659	1.721	12.295	40.659
Distribution Approach	1.468	10.488	51.146	1.468	10.488	51.146
Procurement Method	1.375	9.822	60.968	1.375	9.822	60.968
available transport facilities	1.128	8.056	69.024	1.128	8.056	69.024
Communication	.923	6.594	75.617			
Relief material handling Infrastructure	.844	6.029	81.647			
Length of time to receive supply	.573	4.092	85.739			
Packaging of relief Items	.475	3.396	89.135			
available logistic infrastructures	.411	2.935	92.070			
Security arrangement	.347	2.477	94.547			
Data about IDPs	.299	2.136	96.683			
Availability of staff	.280	2.003	98.686			
Workflow design planning	.184	1.314	100.000			

Extraction Method: Principal Component Analysis.

Sources: Authors' Survey (2023)

From table 3 above shows the output of component factor analysis. The table 3 above recorded fourteen (14) factors that are described as the factors influencing the effectiveness of the logistics of the humanitarian aids organization. However, the Eugen value of one (1) was used by the author to select the variables perceived to have a greater effect on logistics of relief items. Therefore, Eugen value equal to one or greater than one is believed to have a greater effect on logistics of relief materials. In addition, table 3 above indicate that only five (5) variables have their value greater than one as proposed by Eugen. These variables, however, includes management of items in Inventory (3.971), Storage/warehousing of items (1.721), Distribution Approach (1.468), Procurement Method (1.375), and available transport facilities

(1.128). In conclusion, these five (5) variables identified above which have proved to have a great effect on logistics of relief materials will be used for further analysis by using one sample-test statistics which is shown in table 4 below.

Table 4 output of the One-Sample Test Statistics

	Test Value = 0				95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Management of items in Inventory	30.780	112	.278	2.82301	2.6413	3.0047
Storage/warehousing of items	29.352	112	.469	2.83186	2.6407	3.0230
Distribution Approach	24.543	112	.371	2.63717	2.4243	2.8501
Procurement Method	24.929	112	.135	2.65487	2.4439	2.8659
available transport facilities	24.955	112	.142	2.62832	2.4196	2.8370

Sources: Authors' Survey (2023)

From table 4 above, it can be observed that management of items in Inventory, storage/Warehouse of items, Distribution Approach, Procurement Method and available transport facilities are statistically significance since the significance level (i.e., 0.278; 0.469; 0.371; 0.135, and 0.142 respectively) are all higher than the P-value (0.05). Therefore, there is no statistically significance to the effectiveness of logistics variables (i.e., management of items in Inventory, storage/Warehouse of items, Distribution Approach, Procurement Method and available transport facilities). This outcome is in line with the assertion made by Roh. Et. al., (2016); Oke et. al., (2020); and Gbadamosi and Oluwole (2019) that lgistics of aids supplies in Nigeria is ineffective.

Table 5: outputs of Bootstrap for One-Sample Test

	Mean Difference	Bootstrap[a]				
		Bias	Std. Error	Sig. (2-tailed)	Lower	Upper
Management of items in Inventory	2.82301	-.00433	.09085	.279	2.64602	3.00000
Storage/warehousing of Items	2.83186	-.00169	.09961	.470	2.62854	3.03540
Distribution Approach	2.63717	-.00112	.10747	.372	2.43363	2.85841
Procurement Method	2.65487	-.00346	.10177	.136	2.46018	2.84956
available transport facilities	2.62832	-.00233	.10435	.143	2.42478	2.84071

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples
Sources: Authors Survey (2023)

Table 5 above shows the result of the bootstrap statistical test for 1000 samples. From the analysis, it was noticed that management of item in Inventory, storage/warehousing items, Distribution Approach utilize, Procurement Method and available transport facilities are statistically significance since the significance level (i.e., 0.279; 0.470; 0.372; 0.136 and 0.143 respectively) are all higher than the P-value (0.05).

5 CONCLUSION AND RECOMMENDATION

This study on the effectiveness of humanitarian logistics of relief materials at internally displaced persons camp in Abuja particularly in Malaysian Garden and Area one. The study outcome shows that Management of Items in Inventory, Storage/warehousing of items, Procurement Method, available transport facilities, Communication and Relief material handling Infrastructure were less effective. Similarly, the result indicate that the humanitarian logistics is ineffective in delivering of relief items at the IDPs Camps. This study further concluded by recommending that;

1. Relief items which are frequently demanded like drugs should be stored by the aid organization for easily delivery to the IDPs when needed.
2. Effective communication should be established among the stakeholders so that the welfare of internally displaced persons can be improved.
3. Adequate transport facilities should be provided by the government to aid swift mobility in the IDPs camps.
4. Items held in inventory should be well managed. Items with shorter expiration date should not be stored for a long time
5. Aid organization can outsource some of the logistics activities like relief materials procurement to third party, this will improve the effectiveness of the procurement activity.

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