
AGILE LOGISTICS MANAGEMENT AND THE PERFORMANCE OF HUMANITARIAN FIRMS IN NORTHEASTERN KENYA

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ABSTRACT

Purpose: This study investigated the determinants influencing effective logistics coordination in humanitarian efforts within Kenya's Northern Eastern Region. It focused on understanding how organizational competent skills, transport infrastructure, and information sharing impact crisis response efficiency in this challenging context.

Design/methodology/approach: The research employed a descriptive design, targeting 33 logistic coordinators from 13 humanitarian organizations. Through purposive sampling, 28 coordinators were selected. Data collection used structured questionnaires, with analysis performed using SPSS software (version 24).

Findings: The study revealed significant positive correlations between organizational competent skills, transport infrastructure, information sharing, and effective logistics coordination. Organizational competent skills showed the strongest correlation, followed by transport infrastructure and information sharing. Issues with decision-making processes and communication channels were also identified.

Conclusion: Stakeholder engagement plays a vital role in successful implementation of logistics coordination in humanitarian efforts. The study emphasized the interdependence of organizational competency, transport infrastructure, and information sharing in achieving effective coordination, highlighting the need for a comprehensive approach to enhance crisis response efforts.

Recommendations: The study suggests actively involving skilled personnel in decision-making, enhancing communication channels, prioritizing investment in transportation infrastructure, and fostering collaboration among humanitarian organizations. These recommendations aim to improve the overall effectiveness of humanitarian logistics coordination in the Northern Eastern Region of Kenya.

Keywords: *Logistics Management, Agility, Performance, Humanitarian Firms, Northeastern Kenya*

INTRODUCTION

Effective logistics coordination is the backbone of any successful humanitarian response, regardless of location (Kmiecik, 2022). Timely and impactful delivery of aid relies on two key pillars: ensuring resource availability and fostering seamless information exchange among all involved parties (Tosi & Marty, 2023). This intricate collaboration requires careful planning, communication, and cooperation between diverse stakeholders, ranging from government agencies to NGOs and international organizations. The success of this collaboration hinges on three core activities: information sharing, resource allocation, and joint decision-making (Jensen & Hertz, 2022). By ensuring everyone has real-time data on needs and available resources, organizations can avoid duplication of efforts and strategically allocate tasks based on their unique strengths. Collaborative decision-making, envisioned as a unified war room strategy session, allows for the development of a comprehensive response plan that effectively addresses the crisis. However, challenges inevitably arise. The unpredictable nature of disasters, varying capabilities of involved organizations, and logistical hurdles in affected areas can create significant roadblocks (Jalali et al., 2022). Unclear leadership and communication barriers can further hinder smooth operations (Ugwu, 2021).

Despite these difficulties, continuous improvement in coordination mechanisms remains paramount. Technological advancements and the use of coordination platforms can significantly enhance real-time information sharing and collaborative decision-making. Ultimately, successful coordination integrates the diverse efforts of various stakeholders into a unified response, ensuring life-saving aid reaches vulnerable populations precisely when it's needed most. Kenya, a nation of breathtaking beauty, unfortunately faces a harsh reality: the frequent need for humanitarian aid due to disasters, conflicts, and emergencies (Kiswili et al., 2021). Local and international organizations act as lifelines for vulnerable communities, providing immediate relief efforts and working towards long-term development initiatives (Mwangi et al., 2020). However, their work is constantly challenged by a multitude of factors, including limited resources, logistical hurdles, and the unpredictable nature of emergencies.

The situation becomes even more critical in Kenya's North Eastern Region, a zone frequently grappling with crises, conflicts, and harsh environmental conditions (Schetter et al., 2022). Here, the challenges faced by humanitarian organizations are amplified. Deficient infrastructure,

particularly limited roads and transportation options, makes reaching isolated communities incredibly difficult. Even if areas are accessible, security concerns or geographical barriers can further restrict the movement of aid and personnel. Collaboration among organizations can also be hampered by potential conflicts of interest. Weak governance in the region creates additional bureaucratic hurdles, while cultural and religious tensions can complicate the acceptance of aid by communities. Corruption adds another layer of difficulty, potentially diverting resources or eroding trust between aid organizations and the people they serve (Asgary & Lawrence, 2020).

Despite these daunting challenges, successful humanitarian efforts in Kenya, particularly in the hard-hit North Eastern Region, hinge on well-coordinated logistics. By working together and implementing effective logistics strategies, as discussed previously, these organizations can overcome the obstacles and ensure critical aid reaches those who need it most.

LITERATURE REVIEW

Organisation theory lays the groundwork for understanding how organisations operate, particularly in complex and dynamic environments such as humanitarian relief efforts. It explains how structures such as centralised or decentralised models can influence task division, information flow, and, ultimately, collaboration (Mintzberg, 1979). Clear lines of authority, well-defined roles for each participating organisation, and efficient communication channels are all critical for effective coordination. Resource Dependence Theory, a subset of organisational theory, emphasises the significance of collaboration even more. To achieve their objectives in crisis situations with limited resources, organisations must collaborate and share resources (Pfeffer & Salancik, 1978). Real-time information on critical aspects such as needs, available resources, and operational challenges is essential. This transparency enables efficient resource allocation and eliminates duplication of effort. Consider two organisations rushing to deliver the same medical supplies to a region because they lacked real-time data (Jensen & Hertz, 2022). The Relief Coordination Theory emphasises the importance of breaking down information silos and encouraging open communication channels.

This theory emphasises the importance of clearly delegating tasks based on expertise and capabilities. A local NGO with a strong cultural understanding may be best suited to community engagement, whereas an international organisation with extensive logistics experience can lead

large-scale supply distribution (Jensen & Hertz, 2022). Organisations can maximise the overall impact of their humanitarian response by leveraging one another's strengths. Collaboration and consensus-building are essential for creating an effective crisis response plan. Consider a scenario in which multiple organisations implement competing plans, causing confusion and reducing overall effectiveness. The Relief Coordination Theory emphasises the importance of joint decision-making processes in which all stakeholders collaborate to develop a unified plan that addresses crisis needs comprehensively (Jensen & Hertz, 2022).

This model divides organisations into functional areas such as health, logistics, and shelter. This approach encourages collaboration within these clusters (e.g., all health NGOs working together) and facilitates coordination across them (e.g., the logistics cluster ensuring that supplies are delivered to all other clusters) (Carbone, 2008). The cluster approach encourages a more organised and efficient response. This study aims to connect the theoretical frameworks of Organisation Theory and Relief Coordination Theory. The research aims to improve humanitarian logistics in Kenya by investigating how organisational structures and coordination mechanisms can be optimised. Analysing the real-world challenges that organisations face, particularly in the hard-hit Northern Eastern Region, will help to develop more effective and efficient coordination strategies for delivering lifesaving aid.

A study on Big Data Analytics for SMES' Performance Sustainability in Post-Covid-19 Kenya was conducted by Musyoka C. & Wanjohi P. (2024). Small and medium-sized enterprises (SMEs) are vital to a country's economy because they generate income and encourage innovation. They make up 90% of all enterprises and up to half of all jobs worldwide. But as supply chains battle to obtain credit, SMEs frequently have restricted access to credit from suppliers, which is made worse by liquidity issues, declining sales, and defaults. The susceptibility of Smashing is made further more acute by elements like as upfront payments, late fees for credit payments, and ongoing costs in Kenya's post-COVID-19 environment.

Delivering life-saving aid in the aftermath of a crisis necessitates a well-choreographed dance of cooperation and effectiveness. Comes (2020) emphasises the importance of structured coordination, which entails meticulously planned activities and collaboration among multiple stakeholders. This intricate web of cooperation includes a variety of organisations, agencies, and individuals, each with an important role to play in providing aid and support to those in need.

Wankmüller (2020) emphasises the importance of collaboration in avoiding duplication of efforts, optimising resource utilisation, and ultimately improving the overall impact of humanitarian assistance. Consider two organisations rushing to deliver the same medical supplies to a region while unaware of each other's efforts. This duplication not only wastes resources, but also slows the delivery of critical aid. By encouraging collaboration and information sharing, these organisations can work together to ensure that the right supplies reach the right people at the right time.

Paciarotti (2021) delves deeper, distinguishing between relief and logistics coordination. Relief coordination takes a broader view, including activities such as needs assessment, resource allocation, and program development. In contrast, logistics coordination focusses on the management and movement of goods, services, and information within the humanitarian supply chain. Effective logistics coordination serves as the driving force behind a timely and appropriate response to crisis. It ensures that essential items such as food, medicine, and shelter are delivered to their intended recipients on time. Even the best-coordinated relief efforts can be hampered by delays and inefficiencies if this specialised focus on logistics is not maintained. Consider a scenario in which critical medical supplies are procured but are stuck at a port due to logistical issues. This is where effective logistics coordination comes in, ensuring that transportation and delivery run smoothly.

To improve performance, manufacturing companies must make investments in better inventory stock-taking procedures. Focus should be placed on improving the stock chronicle rules and strategies, developing new increase registers for stocks, conducting spot checks, conducting consistent audits, entering records found in automated frameworks, taking stock comparisons, documenting every product in the store by implementing scanner tag numbers that barcode all new stock, verifying issues before distributing stock, and storing supply reports in a secure location accessible only to authorized staff (Collins, M. M., & Patrick, N. 2021).

CONCEPTUAL FRAMEWORK

The study focused on three key independent variables: organizational information sharing, transportation infrastructure, and organizational competency.

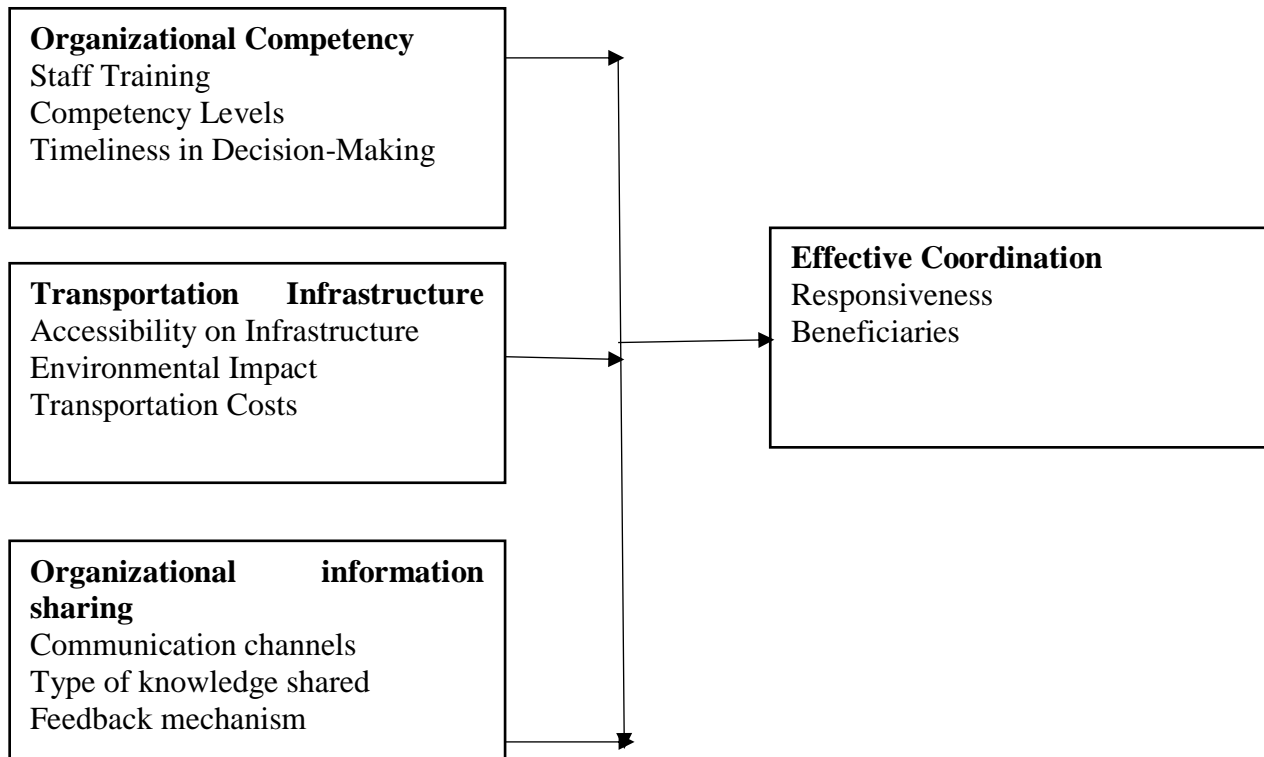


Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study used a descriptive design to investigate the factors that influence effective logistics coordination, with a focus on 33 logistic coordinators from 13 humanitarian organizations in Northeast Kenya. Purposive sampling was used to select 28 coordinators from six randomly selected organizations: The Lutheran World Federation, the World Food Programme, CARE International Kenya, the Kenya Red Cross Society, AMREF Health Africa, and UNICEF. Questionnaires were used to collect primary data, and existing literature was used for secondary data. SPSS version 22 was used for the analysis, which included descriptive statistics and correlation analysis to assess the relationships between independent variables (organizational competency, transportation infrastructure, and information sharing) and the dependent variable (humanitarian organization logistics coordination). The correlation coefficient (R) indicated the strength and direction of relationships between variables, shedding light on factors influencing logistics coordination in the humanitarian context.

FINDINGS AND DISCUSSIONS

The demographic data reveals a workforce predominantly composed of mid-career professionals aged 30-39 (53.6%), with a notable gender imbalance favoring males (64.3%). The majority of participants (82.1%) have served for 10-20 years, indicating a seasoned and experienced workforce. This snapshot of the sample group's composition and tenure provides valuable context for understanding the study population and lays the foundation for further analysis of logistics coordination in humanitarian organizations operating in Northeast Kenya.

Organizational Competent Skills

The data illustrates that the majority of respondents believe the organization provides adequate training opportunities for staff development, with 71.4% agreeing. This suggests a supportive environment for employee growth. In addition, an overwhelming 85.6% of employees feel they possess the necessary skills and knowledge to perform their job effectively, indicating a high level of competency within the workforce. Logistic coordinators are also perceived positively, with 89.2% of respondents agreeing that they ensure streamlined decision-making processes. These findings imply a strong correlation between organizational competency skills and effective logistics coordination. Overall, the data underscores the significance of investing in employee development and fostering efficient decision-making processes to enhance logistics coordination within the organization.

Table 1: Organizational Competent Skills

Statement	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	Total F (%)
The organization offers sufficient training opportunities for staff to foster their development.	1(3.6)	1(3.6)	1(3.6)	20(71.4)	5(17.8)	28(100)
Employees possess the necessary skills and knowledge to perform their job effectively.	1(3.6)	1(3.6)	1(3.6)	1(3.6)	24(85.6)	28(100)
Logistic coordinators ensure that decision-making processes are streamlined and efficient.	1(3.6)	0(0.0)	25(89.2)	1(3.6)	1(3.6)	28(100)

Transport Infrastructure

The data provided indicates a generally positive perception regarding the organization's training opportunities, employee competency, and logistic coordination. The majority of respondents agree

that the organization offers sufficient training opportunities for staff development, with 71.4% expressing agreement. Similarly, an overwhelming 85.6% of respondents believe that employees possess the necessary skills and knowledge to perform their jobs effectively. Moreover, logistic coordinators are viewed positively, with 89.2% of respondents agreeing that they ensure streamlined decision-making processes. These findings suggest a strong alignment between organizational support for employee development, the competency of the workforce, and the effectiveness of logistic coordination. However, there are some respondents who either disagree or are neutral regarding the organization's training opportunities, which may warrant further investigation into areas for improvement. Overall, the data underscores the importance of investing in training and fostering effective decision-making processes to enhance organizational performance.

Table 2: Transport Infrastructures

Statement	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	Total F (%)
Does the organization provide a variety of communication channels to facilitate effective coordination and information sharing among team members	1(3.6)	1(3.6)	2(7.1)	18(64.3)	5(17.8)	28(100)
The organization shares information with the community in need of humanitarian aid.	4(14.2)	5(17.8)	5(17.8)	12(42.8)	6(21.4)	28(100)
Is there affordable public transportation in the region to facilitate logistical operations	1(3.6)	1(3.6)	1(3.6)	24(85.7)	1(3.6)	28(100)

Information Sharing

The survey data indicates that while the organization provides a variety of communication channels for humanitarian purposes, such as 85.7% of respondents remaining neutral, suggesting a prevalent stance on the matter. However, concerning information sharing, a substantial 89.2% of respondents disagree with the effectiveness of the organization's mechanisms. Additionally, while there is acknowledgment of feedback channels being established, with 71.4% of respondents being neutral, there's also a notable portion (14.3%) who agree that these channels exist. Nevertheless, a

minority of respondents, totaling 10.7% (7.1% disagree and 3.6% strongly disagree), express dissatisfaction with the feedback mechanisms. These insights underscore the imperative for the organization to enhance its information-sharing mechanisms and bolster feedback channels to more comprehensively address the needs of communities requiring humanitarian aid.

Table 3: Information Sharing

Statement	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	Total F (%)
organization provides a variety of communication channels for humanitarian purpose	1(3.6)	1(3.6)	24(85.7)	1(3.6)	2(7.1)	28(100)
organization have good information sharing mechanism	1(3.6)	25(89.2)	1(3.6)	1 (3.6)	0(0.0)	28(100)
organization establishes feedback channels to better comprehend the issues impacting the community in need of humanitarian aid.	1(3.6)	2 (7.1)	20 (71.4)	4(14.3)	1(3.6)	28(100)

CORRELATION ANALYSIS

This analysis was done to measure association between variables.

Table 4: Correlation Analysis

		Effective Coordination	Organizational Competency	Transportation Infrastructure	Organizational information sharing
Effective Coordination	Pearson Correlation	1	.886**	.828**	.804**
	Sig. (2-tailed)		.000	.000	.000
	N	28	28	28	28
Organizational Competency	Pearson Correlation	.886**	1	.883**	.837**
	Sig. (2-tailed)	.000		.000	.000
	N	28	28	28	28
Transportation Infrastructure	Pearson Correlation	.828**	.883**	1	.975**
	Sig. (2-tailed)	.000	.000		.000
	N	28	28	28	28
Organizational information sharing	Pearson Correlation	.804**	.837**	.975**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	28	28	28	28

The correlation analysis of factors influencing effective coordination in humanitarian operations reveals strong positive relationships among key variables. Effective coordination shows significant positive correlations with organizational competency ($r = 0.886$, $p = 0.001$), transportation infrastructure ($r = 0.828$, $p = 0.001$), and organizational information sharing ($r = 0.804$, $p = 0.001$). This indicates that effective coordination is closely linked to organizational competence, quality of transportation infrastructure, and level of information sharing among stakeholders. Organizational competency strongly correlates with transportation infrastructure ($r = 0.883$, $p = 0.001$) and information sharing ($r = 0.837$, $p = 0.001$), highlighting their interconnectedness in facilitating coordination. Transportation infrastructure demonstrates significant positive correlations with information sharing ($r = 0.975$, $p = 0.001$) and effective coordination ($r = 0.828$, $p = 0.001$), underscoring its importance in supporting information exchange and coordination efforts.

CONCLUSION

The study concluded that stakeholder engagement plays a crucial role in the successful implementation of logistics coordination in humanitarian efforts in Kenya's Northern Eastern Region. Organizational competent skills, transport infrastructure, and information sharing all demonstrated strong positive correlations with effective logistics coordination. The competence and capabilities of humanitarian organizations in managing logistical operations directly influenced their ability to coordinate effectively and respond efficiently to humanitarian crises. A well-developed transportation network was closely associated with the overall effectiveness of logistical operations in delivering relief items, underscoring the importance of reliable transportation systems in facilitating the timely and efficient movement of goods to affected areas. Effective communication and sharing of relevant information among humanitarian organizations played a crucial role in coordinating logistical efforts, enabling better coordination of resources and activities to meet the needs of affected populations. However, the study also identified areas for improvement. Despite logistic coordinators demonstrating competence based on acquired and trained skills, there appeared to be an issue with decision-making, as many individuals with competent skills were not actively engaged in the process. Additionally, while the transportation infrastructure remained accessible and affordable despite challenging climate conditions and poor

terrain, communication channels and feedback mechanisms were not well-enhanced in the organizations, indicating a potential disconnect between the organizations and their stakeholders.

RECOMMENDATIONS

Humanitarian organizations should actively involve skilled individuals in decision-making processes, enhance communication channels and feedback mechanisms, and prioritize stakeholder engagement. The region should invest in transportation infrastructure to improve accessibility and affordability of logistics networks. Organizations should foster collaboration and information sharing through partnerships, knowledge exchange, and resource-sharing to leverage collective strengths and address common challenges effectively. These actions will enhance overall logistics coordination efforts, leading to more efficient and impactful humanitarian responses in Kenya's Northern Eastern Region.

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