

Abstract:

In conflict-affected areas such as the Gaza Strip, humanitarian organizations recognize the critical importance of effective communication in ensuring the fair and efficient distribution of aid to those in need. This study examines the limitations of the current decentralized communication systems, which often fail to reach the most vulnerable populations and hinder their access to essential resources. To address these challenges, the study proposes that humanitarian organizations adopt a centralized communication system based on a unified digital application. The proposed system includes a centralized beneficiary registration portal, real-time notifications, and an interactive map indicating aid distribution locations.

Through qualitative interviews with representatives of international humanitarian organizations operating in Gaza, the study finds that such a centralized system can significantly enhance coordination among aid providers, reduce duplication in aid delivery, and improve beneficiary satisfaction.

The findings emphasize the urgent need for advanced digital solutions to bridge communication gaps and ensure the equitable and effective distribution of humanitarian aid in crisis-affected regions.

Keywords: Gaza Strip, Humanitarian Aid, Communication Strategies.

**Proposed Centralizing
Communication Strategies of
International Humanitarian
Organizations for Effective
Registration and Aid
Distribution in Gaza Strip**

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Introduction

In conflict zones like Gaza Strip, effective humanitarian aid distribution is crucial to ensuring the survival and well-being of affected populations. The recent escalation in hostilities, which began on October 7, 2023, has led to large-scale displacement, leaving hundreds of thousands of people needing urgent assistance. International organizations like United Nations agencies, American and European organizations, and others have mobilized resources to provide essential supplies such as food, water, financial aid, blankets, clothes, medicine, and shelter. However, the effectiveness of these efforts is hindered by significant communication problem.

Current communication practices for notifying displaced and affected populations in Gaza predominantly rely on social media platforms and SMS messaging. However, these decentralized channels often prove ineffective, particularly in reaching vulnerable individuals. A gap is occurred in persons experience confusion regarding the identity of aid organizations, the procedures for registration, and how to access official web portals. This communication gap has significantly hindered access to humanitarian aid, leaving a considerable number of individuals unregistered and unsupported.

To address this challenge, the present study proposes the development of a centralized digital application that serves as an integrated communication platform for humanitarian response. The proposed application aims to streamline access to aid by offering a unified registry of participating organizations. It enables users to securely register their personal information, receive verified updates regarding available aid, and be notified in real time about distribution schedules and locations. This centralized approach is designed to enhance clarity, transparency, and accessibility for displaced and affected populations navigating the aid system.

1. Research Problem:

This study seeks to address the critical issue of ineffective communication mechanisms currently used by humanitarian organizations in Gaza. The research is guided by the central question: "How can centralized and enhanced communication strategies, improve the accessibility, and effectiveness of humanitarian aid for displaced and affected populations in the Gaza Strip?"

Sub-Questions:

1. What communication channels are currently utilized by humanitarian organizations in Gaza to notify displaced and affected individuals, and to what extent are these methods effective in reaching their targeted audience?

2. What are the key barriers preventing displaced and affected populations in Gaza from receiving accurate, timely, and accessible information regarding humanitarian aid distribution?
3. What digital solutions can be proposed to overcome existing challenges, enhance transparency, and engagement between humanitarian organizations and displaced/ affected communities?

2. Research Objectives:

- I. To assess the current communication methods used by humanitarian organizations in Gaza to notify displaced/ affected individuals.
- II. To analyze the barriers created by registration process challenges that prevent displaced/ affected populations from receiving aid.
- III. To propose a centralized application tool that enables displaced/ affected individuals to register their information with international humanitarian organizations.

4. Research Importance:

A. Practical/ Humanitarian Significance:

By identifying and addressing communication barriers between aid organizations and displaced/ affected populations, this study seeks to improve the efficiency and fairness of aid distribution. The proposed solution enhances the accessibility of organizations to a wide range of in-need displaced/ affected individuals, contributing to their dignity, safety, and well-being.

B. Theoretical Contribution:

This study contributes to the literature on humanitarian aid communication strategies by exploring innovative, technology-driven solutions. It provides a strategy for future research on enhancing aid accessibility and bridging communication gaps in crisis-affected regions.

5. Literature Review

5.1 Previous Studies

Several studies and international reports have explored the humanitarian aid context, particularly in conflict zones like Gaza. These studies provide valuable insights into the complexities and potential solutions for improving aid delivery. A 2025 study by Alsina and Eldridge summarizes that weak financial infrastructure, and weak coordination among stakeholders are the most important factors in the conflict environments.

A 2025 study titled “Challenges in Delivering Humanitarian Aid during War on Gaza” identified major logistical and political barriers affecting aid distribution. The findings emphasized issues such as border closures, damaged infrastructure, and weak coordination among stakeholders, all of which significantly hinder timely and equitable aid delivery.

A 2025 report by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) examined aid delivery during ceasefire conditions in Gaza. It highlighted persistent challenges including restricted movement, threats to humanitarian workers, and limited access to critical actors and supplies.

A 2025 analytical study on humanitarian aid dynamics in Gaza highlighted the politicization of aid and its use as a strategic tool within the conflict. The study argued that competing political interests and control over aid flows undermine neutrality and reduce the effectiveness of humanitarian interventions. A descriptive report titled “Responding to Emergency Needs Amidst Shrinking Humanitarian Space in the Occupied Palestinian Territory” concludes that the humanitarian environment has become increasingly restrictive, unstable, and operationally constrained, significantly undermining the ability to meet urgent population needs. The report recommends the need for scaling up of logistical coordination mechanisms to ensure aid delivery continuity (OCHA, 2024).

Raymond & Card (2015) identifies a critical “doctrine gap” in the humanitarian sector regarding the use of Information and Communication Technologies (ICTs). The study key findings include that humanitarian actors often use digital tools without clearly defined information needs or decision-making frameworks. However, the sector tends to adopt a “solution-first” approach (technology-led response).

In a literature-based analytical study, Cano-Olivos et al. (2022) finds that humanitarian supply chain performance is strongly dependent on dynamic capabilities combining analytics, leadership, and adaptive risk management, especially under volatile operational conditions. The study recommends that humanitarian organizations should enhance collaboration between international agencies, donors, and field-level actors.

In a literature-based study, Frazier (2019) argues that centralized humanitarian aid systems are structurally inefficient. However, the study recommends to transitioning from centralized to decentralized aid delivery systems, and enhancing collaboration between international actors and local stakeholders to improve sustainability and resilience.

In a qualitative research design study Dijkzeul & Moke (2005) examines the public communication strategies of large humanitarian NGOs and UN organizations, focusing on how they align with humanitarian principles and the challenges they face in conveying their messages effectively.

Research Gap

The reviewed literature highlights several important but fragmented developments in humanitarian systems. Research on decentralized aid delivery (Frazier, 2019) argues for shifting authority closer to affected populations to improve resilience and responsiveness. In contrast, work on humanitarian supply chains (Cano-Olivos et al., 2022) stresses the importance of analytics, leadership, and coordination to enhance performance. Additionally, operational reports, such as OCHA (2024), demonstrate that humanitarian environments, such as the Occupied Palestinian Territories, are increasingly constrained through access restrictions, insecurity, and fragmented coordination, which significantly reduce the effectiveness of aid delivery systems.

Despite these contributions, a clear gap remains in the integration of communication strategy design with centralized operational coordination mechanisms for humanitarian registration and aid distribution, particularly in high-complexity and access-constrained contexts such as the Gaza Strip. Moreover, current literature lacks a focused analysis of how communication architecture (centralized vs. decentralized models) directly affects the effectiveness of humanitarian registration systems, data harmonization across agencies, and real-time allocation of aid in crisis zones with restricted access and fragmented governance. This is particularly relevant in Gaza, where operational fragmentation, security constraints, and high population vulnerability require highly coordinated and standardized communication systems.

Therefore, the proposed study on centralizing communication strategies of international humanitarian organizations for effective registration and aid distribution in the Gaza Strip addresses a critical gap through linking communication system design with operational efficiency, data integrity, and equitable humanitarian response in a severely-constrained humanitarian environment.

5.2 Humanitarian Aid Distribution Challenges in Gaza Strip during the War

- A. In The First Few Weeks of The War:** The ongoing war in Gaza, which escalated on October 7, 2023, has caused an unprecedented humanitarian crisis. A report by the United Nations Population Fund (UNFPA, 2024) highlights the devastating impact on civilians and infrastructure. In the initial weeks, Gaza faced a Declaration of a complete siege and closure of all crossings, thus creating severe shortages of electricity, food, water, and fuel. Drugs, medical supplies, and fuel were only expected to last a few

days. Gaza’s 13 hospitals and health facilities were only partially functioning (UNFPA, 2024).

B. A year later: Based on the UNFPA’s 2024 report, nearly 70% of the infrastructure in Gaza is destroyed, leaving almost the entire population without food, clean water, healthcare, and/or basic shelter.

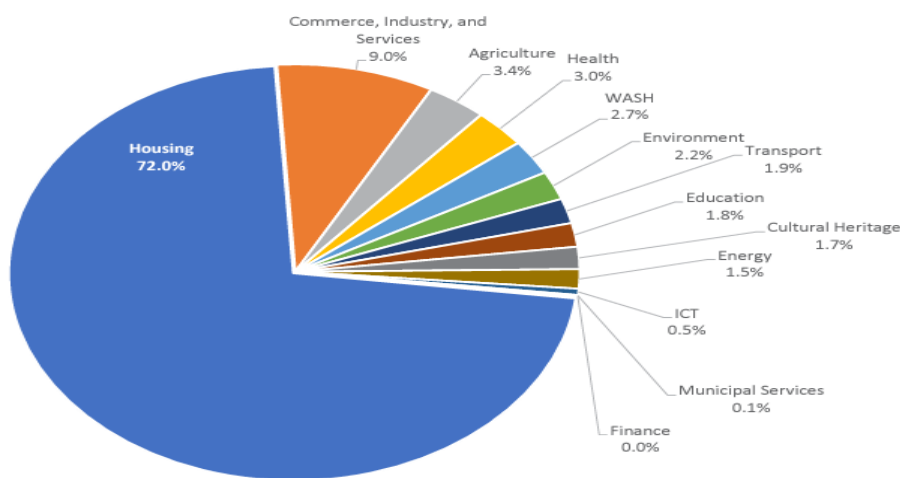
Civilians are enduring unimaginable conditions, separated from their families and sheltering in rubble, and even getting wounded without access to medical care.

Hunger is pervasive in Gaza, pushing the region to the brink of famine. An estimated 1.84 million people, including 42,000 pregnant women, face critical levels of hunger (IPC 3). The markets have almost completely dried up due to a sharp decline in the entry of private commercial trucks into Gaza, reaching its lowest level in October compared to any other month since the war began (UNFPA, 2024).

Extreme market fluctuations, constraints on the commercial sector, and the collapse of formal economic structures further complicated efforts to provide predictable humanitarian assistance. Difficulties in maintaining consistent aid delivery were compounded by the high prices and the fluctuating availability of goods, so people either could not access or could not afford basic items (OCHA, 2024).

An

GAZA STRIP - INTERIM DAMAGE ASSESSMENT | SUMMARY NOTE



Proportion of estimated total damages per sector

infographic showing statistics of the estimated damages per sector, (World Bank, European Union, & United Nations, 2024).

C. Urgent Response from International Organizations

International groups have come together to provide vital humanitarian relief to the Gaza population in the wake of severe destruction and growing human misery. Organizations, including the United Nations and international non-governmental organizations (NGOs), have coordinated efforts to deliver basic supplies such as food, medication, and shelter amidst the mayhem. Extreme obstacles, such as restricted access, broken infrastructure, and security threats, surround these life-saving treatments.

The UN and its humanitarian partners are working to deliver humanitarian support at an unprecedented cost in terms of human lives lost. The focus of the UN is on providing food, shelter, medicine, and water/sanitation – but the capacity-to-deliver depends on coordinated humanitarian movements, and greater access to the necessary supplies and equipment.

A Joint Humanitarian Operation Center (JHOC) was established in Gaza based in the UNRWA Tal Al Sultan facility serving as a common meeting and workspace hub with connectivity for humanitarian organizations. Specific effort was dedicated to engage national NGOs. Such efforts have included supporting the Palestinian NGO network to establish a working space with internet connectivity for them to access the JHOC meetings (OCHA, 2024).

5.3. Contributions and Responses of the International Organizations in The Following Sectors

International organizations like the UN and INGOs cover many sectors to provide in-need people with support, including food, nutrition, shelter, education, health, water and sanitation, infrastructures, protection, cash assistance, logistics, and many other aspects that the Gazans need to survive.

The following are **examples of the challenges and the organizations' response in two (2) areas** related to the research to give a general overview of the situation.

- **Food Security**

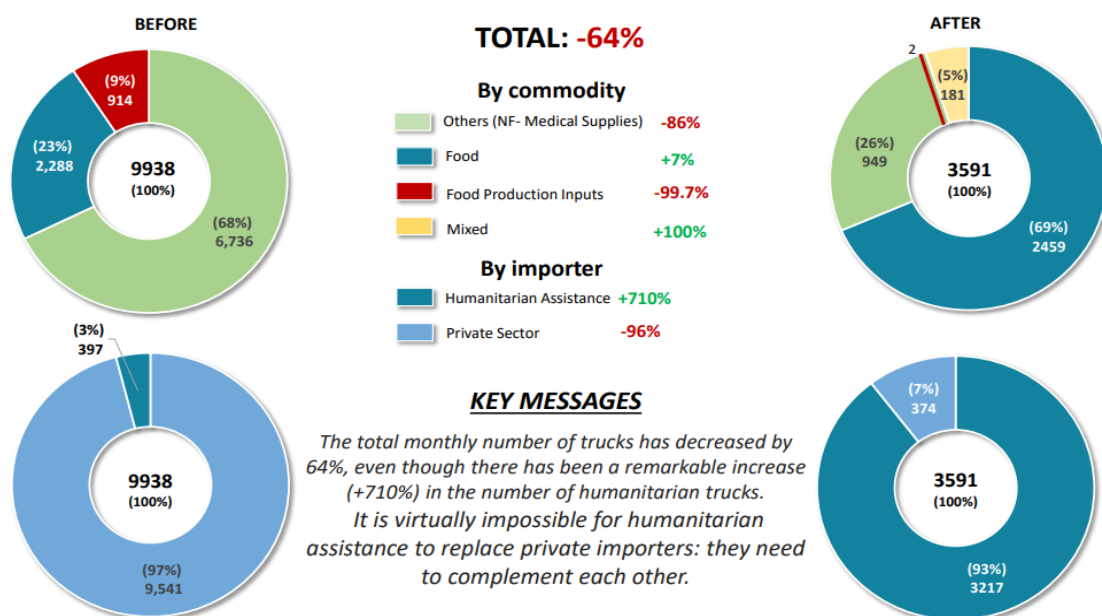
The Food Security Sector (FSS) has made significant efforts to adapt to the challenging conditions in Gaza, remaining committed to improving food security for Gaza's 2.2 million residents. The escalation of hostilities and mass displacements have led to severe food shortages across Gaza, where the food system has collapsed or barely survives through informal markets.

In response, humanitarian organizations have provided extensive in-kind support to bakeries and community kitchens for bread and hot-meals distribution, as well as directly to families through ready-to-eat food parcels (OCHA, 2024).

Based on the OCHA report and Food Security Cluster 2024, **1.8 million** people received food assistance.



Reference: Food Security Cluster: <https://tscluster.org/state-of-palestine>



The Food Security Cluster shows the differences between Before & After October 7th in terms of securing food in Gaza. It illustrates the decrease in the number of trucks from almost 10,000 to 3500, the decrease in the private sector from 97% to 7%, and the increase in humanitarian aid from 3% to 93% of total trucks.

▪ Shelter

Under International Humanitarian Law, schools are protected spaces. Yet, since the onset of hostilities in October 2023, more than 95% of schools in Gaza have been partially or completely destroyed (Unicef, 2023).

Most displaced/ affected people in Gaza are staying to the south of Wadi Gaza in small, overcrowded tents or makeshift shelters. Sealing-off kits, consisting of two tarpaulins, one plastic sheet, rope, and duct tape, are the bare minimum required

to ensure shelters are weather-proof for winter. Without this, families are at risk of hypothermia and other more severe health conditions.

“After being forced to flee over and over again, hundreds of thousands of families in Gaza are living in inadequate tents and makeshift shelters. Some have sewn together old rice sacks to ensure they have something between them and the sky. When winter comes, these shelters cannot keep them safe from strong winds, heavy rains, or cold temperatures,” said Alison Ely, Shelter Cluster coordinator in Gaza (NRC, Norwegian Refugee Council, 2024).

In response, Shelter Cluster partners have remained flexible and innovative, looking beyond traditional options. As well as focusing on tents -being the most visible and obvious solution, partners have distributed sealing-off kits (SOKs). These kits, which contain essential items such as tarpaulins, plastic sheeting, ropes, and duct tape, offer versatile solutions for a variety of shelter-related needs (OCHA, 2024).

A. List of Aid Providers from the International Organizations

International organizations are leading the delivery of vital items to the impacted population of Gaza. Amid the current crisis, this section lists the main aid providers, and their aid commodity types to meet basic necessities including food and shelter.

Most of the following organizations are **communicated and interviewed** (the target group) as part of this research.

Table (2): List of major relief organizations and kinds of the aid they provide

#	Name of Organization	Aid Provided
1	CRS (Catholic Relief Services)	Cash assistance, Food aid, Non-food aid
2	ANERA	Food aid
3	UNRWA	Cash assistance, food aid, fuel assistance, logistics and coordination services, medical aid, non-food aid, protection and awareness programs, shelter and displacement support, water, sanitation, and hygiene services

4	RWW (Rahma Worldwide)	Food aid, shelters, and displacement support
5	Mercy Corps	Cash assistance, food aid, hygiene kits, awareness programs, shelters, and displacement support
6	IRW (Islamic Relief Worldwide)	Food aid
7	OXFAM	Food aid, water and sanitation, hygiene kits
8	HHO (Heroic Hearts)	Food aid
9	ICRC (International Committee of the Red Cross)	Food aid, water and sanitation, hygiene kits, shelters, and displacement support
10	Emirates Red Crescent	Food aid, water and sanitation, hygiene kits, shelters, and displacement support
11	Save The Children	Food aid, water, sanitation, and shelter kits
12	Saudi Center	Food aid
13	GEM (Global Empowerment Mission)	Food aid, water, sanitation, and shelter kits
14	NRC (Norwegian Refugee Council)	Food aid and shelter kits
15	ACF (Action Against Hunger)	Food aid and shelter kits
16	RA (Rebuilding Alliance)	Food aid

17	Acted	Food aid
18	GC (Global Communities)	Food aid

(Compiled by the author, 2026)

5.4. Current Communication Methods Used (for Registration and Distribution Aid)

The International Organizations' aid-distribution process passes through two procedures.

1. Registration: Collecting people's databases.
2. Distribution: Providing aid to registered people.

1) Registration

The process of aid distribution begins with registration, which entails compiling and managing the databases of needy people and families. The international organizations use various data-collection methods: some, such as WFP and UNRWA, rely on posting registration links on social media and web pages, while others, such as HHO, collect the data through physical registration points at camps and school shelters. Some organizations rely on data gathered by their partners; CRS and IRW depend on WFP's database. Some organizations rely on the data from the Ministry of Social Development; Rahma Worldwide collects data from the Ministry and from UNRWA.

Example: Links to organizations who post on web pages and social media:

WFP	https://pal.beneficiaryregistration.cbt.wfp.org/landing	Table (3): Links to some organizations who post on web pages
Save The Children	https://kobo-ee.savethechildren.net/x/hwIkg8AM	
Saudi Center	https://portal.ksach.org/	

2) Distribution

Organizations distribute aid through several approaches to registered individuals:

- A. Specific distribution points to receive aid:** Aid is provided at designated centers, such as warehouses and commercial centers including supermarkets. Beneficiaries receive notifications via SMS messages with

details and locations. This method is usually used for distributing food items and shelter kits.

B. Distribution by organization representatives: The organization representatives or distribution officers deliver aid directly to targeted locations, such as camps and schools, based on pre-planned and selected areas. This approach is often utilized to reach displaced/ affected individuals in need, with specific quantities of aid pallets allocated for each location.

5.5: The Gaps and Drawbacks of the Current Communication Methods.

Effective communication is crucial for international organizations involved in humanitarian aid. However, current communication methods have gaps and drawbacks, thus compromising the efficiency of aid efforts. These challenges can hinder the delivery of assistance and limit the awareness of available resources among those in need.

- **Decentralization:** Many organizations operate independently using their own platforms, registration systems, and communication channels such as websites, Facebook, or a specific private portal. This decentralization of efforts and scattering of links and registration methods cause confusion among beneficiaries about how and where to seek assistance.
- **Limited outreach to the displaced/ affected people:** Many displaced/ affected families lack the knowledge about available aid-registration links or about the opportunities to be served by representatives of aid organizations. Access to such resources typically depends on the specific outreach plans organizations implement each month.
- **Lack of Awareness:** Many beneficiaries are unaware of the organizations providing aid, how to contact them, or where to find reliable information. This gap can lead to missed opportunities for assistance and under-utilization of available resources.

5.6 The Digital Solution Suggestion

Digital technologies promise a means of delivering relief in a quick and cost-effective manner. They show promise in different ways, especially in terms of collecting and analyzing data (Willitts-King et al., 2019; Meier, 2015).

Better data on crisis-affected people (and the resources available for these people) facilitates identification of people in need through evidence-based needs assessments, and ultimately leads to better programming and fewer gaps in meeting those needs (Willitts-King and Spencer 2020).

The difficulties in distributing humanitarian aid in the Gaza Strip underscore the pressing need for innovative solutions to improve access to help and expedite communication. Many displaced and affected people are neglected and unaware due to the substantial gaps caused by the absence of a centralized mechanism for data registration and aid distribution. A centralized application is suggested as a digital remedy to these problems. This app seeks to increase the effectiveness of aid delivery, streamline registration procedures, and standardize communication channels.

5.7 A Suggested App to Centralize Communication in Data Registration & Distribution

The intended application will serve as a centralized platform connecting international organizations with beneficiaries. By integrating multiple organizations into a single, user-friendly interface, the app will provide displaced/affected families with direct access to reliable trustworthy information, registration links, and distribution updates.

The app's primary features include:

- 1- Unified Registration Portal:** A single database for all international organizations collected from displaced/ affected and in-need people through the app that centralizes registration, eliminates duplication and guarantees smooth data collection.
- 2- Real-Time Notifications:** SMS or Push alerts to recipients regarding updates, distribution dates, and registration possibilities.
- 3- Interactive Map:** A dynamic map that shows distribution places or pick-up locations in the designated areas.
- 4- Organization Directory:** A comprehensive list of all organizations that provide aid, along with information about them and their aid types.
- 5- Multilingual Support:** Support is provided in both Arabic and English, so that foreign organizations workers and local Gazan users can use the app.

5.8 The Benefits of the Suggested App Enhanced Accessibility for Beneficiaries

_ The suggested app provides a unified platform, where beneficiaries can register for aid. This eliminates the need to physically visit the registration points, which is challenging during crises. (GSMA, 2017; Kuner et al., 2017; Sandvik et al., 2017; Latonero, 2018).

_ Beneficiaries can receive instant notifications about their aid status, distribution schedules, and changes in availability, thus enhancing transparency and reducing uncertainty.

For Organizations

_ The app allows organizations to collect and manage beneficiaries' data efficiently, reducing duplication and errors.

For Beneficiaries

- Beneficiaries can update their information, check aid status, and manage preferences independently, empowering them to take control of their aid requests.

6. Research Methodology:

6.1 Qualitative Approach

1- Research Design: A qualitative approach has been employed. This approach focuses on qualitative data collection and analysis methods to provide a comprehensive understanding of the research topic.

2- Data Collection: Data has been collected through interviews to assess the participants' perceptions of the effectiveness of current communication strategies and the proposed application.

6.2. Research Sample

The selected organizations represent a purposive, criterion-based sample of the largest and most operationally-active international humanitarian actors delivering direct-to-beneficiary assistance in the Gaza Strip. The core international humanitarian ecosystem operating in Gaza includes INGOs and UN-linked partners, who operate active distribution systems inside Gaza, making them essential for understanding the real implementation challenges.

The study included 11 key participants representing major humanitarian organizations operating in Gaza:

- Action Against Hunger (ACF): Osama Abu Leila (Manager)
- Rahma Worldwide (RWW): Mohammed Al Hallaq (Manager)
- Anera: Sami Matar (Manager)

- Islamic Relief Worldwide (IRW): Saeed Mobayyed (Field Coordinator, Distribution Operations)
- Oxfam: Mohammed Keshko (Manager)
- Global Communities (GC): Mohammed Atallah (Manager)
- Rebuilding Alliance (RA): Mohammed Al-Madhoun (Warehouses Manager)
- ICRC: Ashraf Swaied (Warehouses Manager)
- Catholic Relief Services (CRS): Yousif Younis (Information Technology Manager)
- HHO: Motasem Abu Armana (Warehouses Manager)
- GEM: Hana Al-Jamal (Director of Global Logistics - USA)

All participants hold senior positions in their respective organizations, providing valuable insights into the humanitarian-aid distribution processes. For confidentiality, participants are referred to by their roles and organizations without disclosing sensitive personal information. Interviews were conducted during the field data collection period (June 2024 – November 2024).

6.3 Interview Design and procedures

Twenty-minute-long structured interviews were conducted in the forms of face-to-face interviews with managers located in southern Gaza and phone calls with managers in the northern part of Gaza.

Structured interviews were conducted with representatives from international humanitarian organizations. These interviews followed a pre-determined set of standardized questions to gather consistent and comparable data. The focus is on obtaining specific insights regarding the interviewees' experiences with current communication methods for aid distribution, as well as their opinions on the potential impact and feasibility of the proposed application. The structured format ensures clarity, reliability, and ease of data analysis while limiting any interviewer bias (Creswell, W. (2018); Bryman, A. 2016; Cohen, L., et al., 2018).

The interview's questions were:

- _ What are the current strategies and methods employed by your organization to notify displaced/ affected individuals about registration for humanitarian aid?
- _ What are the primary challenges and limitations faced by these methods in reaching and effectively engaging the target population?
- _ What is the current number of individuals or families registered in the organization's system for humanitarian aid distribution?

_ What communication mechanisms does the organization utilize to coordinate and inform beneficiaries about aid distribution processes?

_ What barriers or obstacles hinder displaced/ affected individuals from your distributing processes through existing communication methods?

_ To what extent do you believe that a centralized application connecting humanitarian organizations with displaced/ affected individuals could facilitate the registration process and improve outreach and aid distribution?

The interview process

1. Initial contact was made with organizations via email and phone to request participation. However, the interviews were scheduled by phone calls at mutually convenient times.
2. The structured interviews were conducted through meetings or phone calls based on the location of interviewees.
3. The responses were recorded under participants' consent.
4. The interviews were transcribed and even translated when necessary.
5. The data was compiled for thematic analysis.

6.4 Data Analysis

Thematic analysis was employed to analyze the qualitative data collected from interviews. This approach was chosen for its ability to identify patterns and themes within complex datasets while maintaining flexibility.

For appropriateness, thematic analysis is suitable for this study because:

- 1- It allows for the identification of patterns across diverse organizational contexts,
- 2- It provides a structured yet flexible method to interpret responses, and
- 3- It enables both surface-level and in-depth analysis of qualitative data.

6.4.1 Analysis Steps and Implementation

Familiarization with Data

- All interviews were carefully transcribed and revised to gain an in-depth understanding of the data. Notes were taken to highlight key points, such as registration data sources and communication challenges.
- Example: For the first question, responses were written as notes (e.g., IRW uses WFP registration links, ACF uses the Ministry of Social Development).

Initial Coding

- A coding framework was developed based on the research questions and objectives. Codes were assigned to relevant segments.
- Example Codes:
 - **REG_SOURCE**: Sources of registration data (e.g., Ministry of Social Development, UNRWA links, WFP links, gathering from camps representatives, and databases).
 - **COMM_METHOD: Methods of communication (e.g., SMS, social media, direct outreach).**
 - **BARRIERS**: Challenges in communication (e.g., displaced/ affected individuals unaware of aid and scattered between registration methods).
 - **TECH_ATTITUDE**: Attitudes toward the proposed application (e.g., perceived usefulness).
- A coding matrix was created to organize the responses across organizations.

Table (4): Coding matrix

Organization	REG_SOURCE (Registration Source for info)	COMM_METHOD (Communication Method for distribution)	BARRIERS (Challenges)	TECH_ATTITUDE (Tech Readiness)
Anera	Direct outreach from camps representatives, WFP registration link	direct outreach	Extreme difficulty to reach displaced and affected people in rented apartments (host communities), delivery to camps only, duplication of data because individuals register in multiple places or multiple times for the same family on the link, chaos at time of distribution caused by people, changes in phone	Very Positive: Interested in the centralized app for registration & distribution

			numbers causing loss of contact methods.	
ACF	Ministry of Social Development	SMS	Logistical challenges: difficulties in transportation, communication challenges: wrong data filled out by displaced and affected people, preventing aid delivery.	Positive: Interested in the centralized app for registration
Rahma	Ministry of Social Development, UNRWA	SMS	Duplication of data	Neutral: Feasibility concerns for implementation
IRW	WFP registration link	SMS, social media	No update of the data of displaced and affected people, Duplication of data	Positive: Supports real-time notifications feature
GC	WFP registration link	SMS, direct community outreach	Inconsistent data sharing between organizations	Positive: Interested in interactive map functionality
RA	School registrations, camp distributions	SMS, direct outreach	Lack of awareness among displaced and affected individuals, confusion over which organization to register with or how to access reliable information.	Neutral: finding it a good solution to spread awareness between displaced and affected families to ensure better and easy registration

ICRC	UNRWA, Ministry of Social Development,	direct outreach	No communication with displaced and affected people	Positive: Supports unified registration portal to collect data
Emirates Red Crescent	Direct outreach to camps	direct outreach	Large efforts to collect data	Positive: interested in developing a useful way like the app to facilitate data collection
CRS	WFP registration link	SMS	No update of data for displaced and affected people, duplication of data, wrong data filled out by displaced and affected people, preventing aid delivery	Positive: will be engaged in the app
Oxfam	Direct outreach	Direct outreach	Large efforts to collect data	Positive: interested in developing a useful way like the app to facilitate data collection
HHO	Direct outreach to camps	Direct outreach from camp representatives	No transparency in sheets of displaced and affected families' data from the camps	Neutral: hoping it solves the transparency

Theme Identification

Codes were grouped into broader themes based on their similarities and relevance to the research objectives. For example:

- **Theme 1: Registration Processes**
 - Sub-themes: Government partnership, international organizations' partnerships, online links, direct community engagement.
- **Theme 2: Communication Challenges**

- Sub-themes: Resource constraints, population accessibility issues, duplication and technical issues, and efforts.
- **Theme 3: Technological Readiness**
 - Sub-themes: Willingness to adopt new solutions and engagement, integration potential.

Theme Review

Themes were reviewed against the original data to ensure they accurately represented the participants' responses. A thematic map was created to visualize the relationships between themes.

- Example: The theme of **Communication Challenges** was linked to both **Registration Processes** and **Technological Readiness**, highlighting the interconnected nature of these issues.

Theme Definition and Refinement

Each theme was clearly defined, and sub-themes were identified to provide a more detailed understanding. For example:

- **Theme: Communication Challenges**
 - Sub-theme 1: Existing Methods
 - Example: SMS, social media, and direct outreach are commonly used but fail to reach all displaced and affected individuals.
 - Sub-theme 2: Technological Barriers
 - Example: Duplication of data and inconsistent data sharing between organizations are the main challenges.
 - Sub-theme 3: Improvement Opportunities
 - Example: Participants expressed interest in a centralized application to streamline communication.

Key quotes from participants were selected to illustrate each theme.

Final Analysis and Synthesis

The themes were synthesized into a coherent narrative that addressed the research questions. Key findings were summarized, and visual aids (e.g., tables) were created to present the data.

Patterns were identified, such as the reliance on government, international databases, and physical registration points and the common use of SMS, social media, and direct collecting and outreach for registration for communication.

7. RESULTS

The thematic analysis addresses the study's central research problem, which is the inefficiency of current communication mechanisms used by humanitarian organizations in Gaza. These inefficiencies limit the accessibility, accuracy, and timeliness of humanitarian aid for displaced and affected populations. The findings are presented in a concise thematic structure aligned with the research questions and objectives.

7.1 EFFECTIVENESS OF CURRENT COMMUNICATION CHANNELS

The results indicate that humanitarian organizations use multiple communication channels, including social media, SMS, websites, and physical registration points. However, these channels operate in a fragmented and uncoordinated manner across organizations.

This decentralization leads to inconsistent information dissemination, duplication of announcements, and reduced clarity for beneficiaries. As a result, displaced and affected populations often face difficulties in accessing reliable and timely aid information. These findings show that current communication methods are only partially effective and directly reflect the core problem of weak communication coordination.

7.2 BARRIERS TO ACCESSING HUMANITARIAN AID INFORMATION

The analysis identifies key structural and operational barriers affecting information accessibility. The most significant barrier is the lack of a unified registration system, thus causing duplicated beneficiary records, inconsistent data, and outdated information across organizations.

In addition, limited resources for field data collection and weak coordination mechanisms hinder continuous updating of beneficiary databases. These constraints reduce data accuracy and delay the dissemination of critical information, thereby limiting equitable access to humanitarian assistance.

7.3 CENTRALIZED DIGITAL SOLUTION AND STAKEHOLDER READINESS

The findings show strong support among participants for adopting a centralized digital platform to address current inefficiencies. Stakeholders emphasized that

such a system would enhance coordination, reduce duplication, and improve the accuracy and speed of communication.

Key proposed features include a unified registration portal, real-time notifications, interactive distribution maps, and bilingual support (Arabic and English). These requirements highlight the perceived necessity of a digital solution to improve transparency and accessibility in humanitarian communication.

7.4 SYNTHESIS IN RELATION TO THE RESEARCH PROBLEM AND OBJECTIVES

Overall, the findings directly respond to the research problem through demonstrating that fragmented communication systems significantly hinder the effectiveness of humanitarian-aid delivery in Gaza. In relation to the research objectives:

- Current communication methods are decentralized and only partially effective.
- Structural and logistic barriers prevent accurate and timely access to aid information.
- There is strong evidence supporting the feasibility and necessity of a centralized digital solution.

Accordingly, the study concludes that adopting a centralized communication and registration system is essential to improving the efficiency, accuracy, and accessibility of humanitarian aid for displaced and affected populations.

8. RECOMMENDATIONS

In light of the study findings, and in direct response to the research problem concerning ineffective and fragmented communication mechanisms in humanitarian-aid delivery in Gaza, the following recommendations are proposed. These recommendations are aligned with the research objectives and address the research questions through providing a practical pathway toward improving accessibility, coordination, and effectiveness of humanitarian communication systems.

8.1 DEVELOPMENT OF A CENTRALIZED DIGITAL APPLICATION

The study strongly recommends the development of a centralized digital application as a strategic solution to overcome the current fragmentation in humanitarian communication and registration systems.

The proposed system should include the following core features:

1. A unified beneficiary registration portal to ensure accurate, consolidated, and non-duplicated data across all humanitarian organizations.
2. Real-time notification systems (SMS and push notifications) to improve the speed and reliability of information dissemination.
3. An interactive mapping feature to clearly display aid distribution points and improve accessibility for beneficiaries.
4. Bilingual support (Arabic and English) to ensure inclusivity and broader accessibility for diverse user groups.

These features directly respond to the identified communication gaps and aim to enhance the efficiency, transparency, and timeliness of humanitarian-aid information.

8.2 STRENGTHENING COORDINATION AND DATA GOVERNANCE

To address the structural barriers identified in the study, it is recommended to enhance collaboration among humanitarian organizations through the establishment of a joint coordination task force responsible for overseeing the development and implementing the centralized application.

Furthermore, the study recommends the adoption of integrated data management and coordination policies aimed at:

- Reducing duplication of beneficiary data
- Improving data accuracy and consistency
- Ensuring real-time updates across organizations
- Enhancing transparency and accountability in aid distribution processes

These measures directly address the identified inefficiencies in current systems and contribute to improving the overall effectiveness of humanitarian communication and service delivery.

9. Conclusion

The findings underscore the urgent need for a centralized digital solution to address the communication and coordination challenges in humanitarian aid distribution in Gaza. Through implementing the proposed recommendations, international organizations can enhance the efficiency, transparency, and equity of aid delivery, ultimately improving outcomes for displaced and affected populations.

References:-

- Alsina, M., & Eldridge, J. (2025). Cash-based assistance in conflict settings: Evaluating the effectiveness of multi-purpose cash transfers. *Journal of Humanitarian Action*, 10(1), 1–15. <https://doi.org/10.1186/s41018-024-00165-6>
- Al-Akkad, A., & Zimmermann, A. (2013). The role of social media in emergency management: A case study of the 2011 Egypt revolution. *International Journal of Information Systems for Crisis Response and Management*, 5(2), 1–15.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Bryman, A. (2016). *Social research methods* (5th ed.). Oxford University Press.
- Cano-Olivos, P., Sánchez-Partida, D., Caballero-Morales, S. O., & Martínez-Flores, J. L. (2022). Strategies that improve the performance of the humanitarian supply chain. In *Humanitarian logistics from the disaster risk reduction perspective: Theory and applications*. Springer. https://doi.org/10.1007/978-3-030-90877-5_3
- Capgemini Consulting. (2019). *Digital transformation in humanitarian aid: Improving efficiency and impact through technology*. Capgemini Research Institute.
- Clarke, V., & Braun, V. (2014). Thematic analysis. In T. Teo (Ed.), *Encyclopedia of critical psychology* (pp. 1947–1952). Springer.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Currión, P. (2018). Network humanitarianism. *Journal of International Humanitarian Action*, 3(1), 1–8.
- Denscombe, M. (2014). *The good research guide: For small-scale social research projects* (5th ed.). Open University Press.
- Dijkzeul, D., & Moke, M. (2005). Public communication strategies of international humanitarian organizations. *International Review of the Red Cross*, 87(860), 673–691. <https://doi.org/10.1017/S1816383100184504>
- European Centre for Development Policy Management (ECDPM). (2022). *Digitalization in humanitarian aid: Opportunities and challenges*.

- Frazier, T. G. (2019). Decentralized humanitarian aid deployment: Reimagining the delivery of aid. *Journal of Humanitarian Logistics and Supply Chain Management*. <https://doi.org/10.1108/JHLSCM-05-2019-0037>
- GSMA. (2017). *The mobile economy: Humanitarian connectivity charter report*. GSMA.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. SAGE Publications.
- Gutierrez, M., & Bryant, J. (2022). The fading gloss of data science: Towards an agenda that faces the challenges of big data for development and humanitarian action. *Development*, 65(1), 80–88.
- Hilhorst, D., & Jansen, B. J. (2010). Humanitarian space as arena: A perspective on the everyday politics of aid. *Development and Change*, 41(6), 1117–1139.
- IFRC. (2018). *World disasters report 2018*. International Federation of Red Cross and Red Crescent Societies.
- INSS. (2025). *Humanitarian aid to Gaza: Strategic and political dimensions*. <https://www.inss.org.il/publication/humanitarian-aid-gaza/>
- Kaiser, K. (2009). Protecting respondent confidentiality in qualitative research. *Qualitative Health Research*, 19(11).
- Kuner, C., Marelli, M., & Svantesson, D. J. B. (2017). The GDPR and humanitarian action: Data protection in crises. *International Review of the Red Cross*, 99(904), 1–22.
- Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing* (2nd ed.). SAGE Publications.
- Latonero, M. (2018). *Stop surveillance humanitarianism*. Data & Society Research Institute.
- Meier, P. (2015). *Digital humanitarians: How big data is changing the face of humanitarian response*. CRC Press.
- Norwegian Refugee Council. (2024). *Title of report or webpage*. <https://www.nrc.no/>
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1–13.
- OCHA – United Nations Office for the Coordination of Humanitarian Affairs. (2021). *Data responsibility guidelines*.
- OCHA – United Nations Office for the Coordination of Humanitarian Affairs. (2022). *Humanitarian data exchange and digital transformation in crisis response*.

- OCHA. (2024). *Responding to emergency needs amidst shrinking humanitarian space in the Occupied Palestinian Territory (January–June 2024)*. <https://www.ochaopt.org/content/responding-emergency-needs-amidst-shrinking-humanitarian-space-occupied-palestinian-territory-january-june-2024>
- OCHA. (2025). *Humanitarian assistance plan for Gaza: Considerations for the delivery of humanitarian aid during a ceasefire*. <https://www.un.org/unispal/document/un-ocha-humanitarian-assistance-plan-for-gaza-considerations-for-the-delivery-of-humanitarian-aid-during-a-ceasefire-in-gaza/>
- Raymond, N. A., & Card, B. L. (2015). *Applying humanitarian principles to current uses of information communication technologies: Gaps in doctrine and challenges to practice*. Harvard Humanitarian Initiative. <https://hhi.harvard.edu/publications/applying-humanitarian-principles-current-uses-information>
- ResearchGate. (2025). *Challenges in delivering humanitarian aid during war on Gaza*. <https://www.researchgate.net/publication/390797632>
- Sandvik, K. B., Jacobsen, K. L., & McDonald, S. M. (2017). Do no harm: A taxonomy of the challenges of humanitarian experimentation. *International Review of the Red Cross*, 99(904), 319–344.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.
- UNFPA. (2024). *Palestine situation report 11 (November 2024)*. <https://www.unfpa.org/>
- United Nations Global Pulse. (2016). *Big data for development: A primer*. UN Global Pulse.
- World Bank, European Union, & United Nations. (2024, Month). *Infographic showing estimated damages per sector*.
- World Bank. (2021). *World development report 2021: Data for better lives*.
- Willitts-King, B., Bryant, J., & Holloway, K. (2019). The future of aid: INGOs in 2030. Overseas Development Institute (ODI).
- Willitts-King, B., & Spencer, A. (2020). Digital humanitarianism and the data revolution: Lessons from crises. Overseas Development Institute (ODI)