

## إلى أي مدى تختلف أساليب دمج المستفيدين في سلاسل الإمداد الإنسانية في تنفيذها ونتائجها بين المنظمات الحكومية والخاصة وغير الربحية؟

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## To what extent do beneficiary integration approaches in humanitarian supply chains vary in their implementation and outcomes between public, private, and non-profit organizations?

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### الملخص:

تعمل المنظمات الإنسانية في بيئات يغلب عليها عدم الاستقرار، والتقلّب في حالات الأزمات، أو الكوارث حيث قد لا تعمل نماذج سلاسل الإمداد التقليدية بفعالية. وهذا ما يبرز الحاجة إلى تحول استراتيجي نحو نموذج سلسلة إمداد أكثر استجابة، ومرونة، وقادر على التكيف في تلك البيئات المتقلبة. ويعد دمج المستفيدين في سلاسل الإمداد الإنسانية أحد الاتجاهات الرئيسية في هذا التحول.

يستكشف هذا البحث الفروقات في دمج المستفيدين في عمليات سلاسل الإمداد عبر القطاعات الثلاثة: الإنسانية، والحكومية، والخاصة، مع التركيز على درجة الدمج، والاستراتيجيات المعتمدة، والعوامل التي تعيق أو تسهل الدمج في كل قطاع. ومن خلال مراجعة أدبية شاملة، يتم تحليل الأطر القائمة المستخدمة في تقييم سلاسل الإمداد عبر هذه القطاعات بشكل منهجي.

ولتحقيق ذلك، أُجريت مراجعة منهجية للأدبيات؛ جرى فيها تحليل 61 مقالة نُشرت بين عامي 2000 و2025، وتم جمعها من خلال أربع قواعد بيانات رئيسية: JSTOR، Scopus، Web of Science، IEEE Xplore. ونتيجة لذلك، يقدم هذا البحث نموذجاً لدمج المستفيدين في عمليات سلاسل الإمداد الإنسانية مصمماً خصيصاً ليتناسب مع الاحتياجات الفريدة للمنظمات الإنسانية. ويضمّ هذا النموذج أهم السمات التي تسهم في تحسين إجراءات دمج المستفيدين، وكما يوفر رؤية قيّمة للباحثين والممارسين على حدّ سواء في أعمالهم المستقبلية في مجال سلاسل الإمداد الإنسانية.

الكلمات المفتاحية: دمج المستفيدين، سلسلة الإمداد الإنسانية، المنظمات الإنسانية

### Abstract:

Humanitarian organizations operate in uncertain and volatile environments, often in crisis or disaster situations where traditional supply chains may not function effectively. This highlights the need for a strategic shift toward a more responsive and flexible supply chain model, one that adapts to the unpredictability of the environment. A key direction in this shift is the integration of beneficiaries into humanitarian supply chains.

This paper explores the differences in beneficiary integration within supply chains across humanitarian, public, and private sectors, emphasizing the degree of integration, strategies employed, and the factors that hinder or facilitate integration in each domain. Through a comprehensive literature review, existing frameworks used for supply chain evaluation across these sectors are systematically examined.

To achieve this, a systematic literature review was conducted, analyzing 61 articles published between 2000 and 2025, sourced from four major databases: IEEE Xplore, Web of Science, Scopus, and JSTOR.

As a result, this research introduces a model for beneficiary integration in humanitarian supply chains, specifically tailored to the unique needs of humanitarian organizations. This model incorporates the most relevant attributes for improving beneficiary integration and provides valuable insights for both researchers and practitioners in their future work.

**Keywords:** Beneficiary Integration, Humanitarian Supply Chain, Humanitarian Organization

## Introduction

Supply Chain Management (SCM) in its simple definition involves the coordination and management of all activities involved in the production and delivery of goods and services, from raw material sourcing to the delivery of finished products to customers (Oliver & Webber, 1982). The effective management of the supply chain can lead to cost savings, improved customer service, and increased profitability which are key elements to achieve sustainable competitive advantage (Markley & Davis, 2007). Thus, Supply Chain Management can serve as a valuable tool for integrating all elements and processes, enabling the implementation of a tailored strategy that enhances both the effectiveness and efficiency of the organization. Additionally, it improves the organization's ability to respond to uncertainties (Christopher, 2017). Numerous scholars have emphasized the importance of supply chain management in improving organizational performance. For example, Schliephake, Stevens, and Clay (2009) argued that supply chain management plays a crucial role in

repositioning organizations, while Craig, Hult, and Ketchen (2009) suggest that an innovative supply chain can contribute to superior organizational performance. Additionally, studies by Todd and McGrath (PRTM), on integrated supply chain benchmarking and supply chain operations reference model, shows that the gap in performance between organizations becomes more wide and this gap cannot be bridged with no efficient supply chain where organizations pay less for a well-structured supply chain which enables the organization to outperform its competitors (Stewart, 1997).

Therefore, researchers have been studying over the years how to involve the strategic alignment of functions and processes of supply chain to have better performance through a true design of supply chain that can achieve cost reduction and reduced lead time. And that is mainly a focus on which part of supply chain plays the most important role in leverage the performance (Markley & Davis, 2007). Scholars suggest many models with some key factors to focus, examples for this is the Information

Technology (IT) aspect in facilitating the integration of various supply chain processes and functions (Kim, Cavusgil, & Cavusgil, 2013; Rai, Patnayakuni, & Seth, 2006). Other example is to adopt green supply chain management as a way to improve supply chain performance while also addressing environmental concerns (Hervani, Helms, & Sarkis, 2005; Diabat & Govindan, 2011). Resilience is another important aspect which refers to the ability of the supply chain to respond effectively to disruptions, such as natural or human disasters (Linnenluecke, 2017) and last but not least, the integration of supply chain processes and functions (Caputo & Valeria, 1996; Trkman, Indihar, & Jaklic, 2007).

Despite ongoing efforts, a clear understanding of supply chain management and how to effectively model supply chain performance remains limited. This understanding can vary widely across different organizations and sectors, making it difficult to draw broad generalizations. The following section goes deeper into the concept of humanitarian and nonprofit organizations, offering insights that clarify the distinct supply chain dynamics across sectors and emphasizing the key differences specific to each organizational context.

### **Humanitarian or nonprofit organization**

A nonprofit organization, also known as a humanitarian or not-for-profit organization, is an entity that operates to promote a particular social cause or serve a specific group of people without the primary goal of making a profit. There is an increasing involvement of nonprofit sector globally in all people's life aspects. Statistics shows that over 7 million individuals, represents 6.8 per cent of the total workforce, are working in full time job at nonprofit organization. In the UK, there are about 240,000 nonprofit organizations with about one million workers (Courtney, 2002).

Anthony and Young (1984) define the non-profit organization as "an organization whose goal is something other than earning a profit for its owners. Usually, its goals are to provide services". Anthony and Young build on the definition of the organization with characterizing the goal of non-profit organization with two main qualities; the feature of nonprofit and propensity towards voluntary services.

Nonprofits can take various legal forms, including charities, foundations, and social enterprises (Attorney, 2021). The anthology of nonprofit organization

imposes institutional settings that make a differential with profit ones. These differences pose redefinition of organizational culture, objectives, processes and functions based on social choice (DiMaggio & Anheier, 1990). Despite there is a clarity in literature on anthology of public and private organizations, however, there is ambiguity in classification of nonprofit organizations. Some schoolers argue the non-existence of a third classification, and non-profit organization is defined as part of public sector because it follows the public policy process and has similar objectives of building social capital and though non-profit organization. In other words, current conceptualization of public sector is well fitting for nonprofit organizations (Boris & Mosher-Williams, 1998; Gronbjerg, 1994; Kearns, 1994).

Others claim that non-profit organization is a separate model of organization that has a definite scope of mission, goals, objectives, management practices and advocacy (Drucker, 1990). They also argue on the goal of nonprofit organization is different than private incorporate for maximizing profit and public sector for maximizing quantity and quality of services provided to civilians. The goal is defined under a scope

of maximizing objective defined function, function could be education, health, environment, or any other form of services (Schiff & Weisbrod, 1991). Nonprofits measure success not in terms of financial profit, but in terms of the impact they make on their beneficiaries and the communities they serve (Boris & Mosher-Williams, 1998).

Nonprofit organizations differ from both public and private organizations in ownership. While public organizations are government-owned and private organizations are typically owned by shareholders, nonprofits are owned by no one and exist solely to serve their mission. One key difference between nonprofits and public organizations is the source of their funding. Public organizations, such as government agencies and departments, are primarily funded by taxpayers, while nonprofits rely on donations, grants, and other forms of external funding to support their operations. This funding model gives nonprofits more flexibility and independence than public organizations, which may be subject to political pressure or budget cuts (Kearns, 1994). Another key difference between nonprofits and private organizations is their legal status. Private

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organizations are typically structured as for-profit corporations, while nonprofits are structured as tax-exempt entities. This tax-exempt status allows nonprofits to receive tax-deductible donations from individuals and corporations, making it easier for them to raise funds and carry out their mission (Boris & Mosher-Williams, 1998).

In conclusion, nonprofits differ from public and private organizations in several ways, including their funding sources, legal status, decision-making processes, and goals and objectives. Nonprofits exist solely to serve their mission and the public good, and rely on donations, grants, and other forms of external funding to support their operations. Nonprofits play a crucial role in addressing social and environmental issues, and by supporting them, individuals and businesses can contribute to creating positive social change (Courtney, 2002).

Many scholars confirm the increasing role of nonprofit organizations due to the growing rate of humanitarian crises occurrence, including natural disasters such as pandemics like EVD and Covid-19, severe floods, tsunami, earthquakes and forest fires, or human disasters such as wars and conflicts around the world. Humanitarian crises enforce vulnerability and instability in

communities that lay beyond the capacity of local governments to respond. This highlights the need for having nonprofit organizations to bridge the gap through their responsive capacity (Adler, Glymour, & Fielding, 2016; Vink, Koskela-Huotari, & Tronvoll, 2020; Boenigk, Kreimer, Becker, & Alkire, 2021).

### **Statement of problem**

The humanitarian organizations are responsible for delivering critical supplies, including food, medicines, and other humanitarian aids, to vulnerable communities during natural and man-made disasters around the world (Queiroz, Renato, & Silvia, 2020). Supply chain cannot be considered only as the center of any humanitarian response to increasing conflict around the world; but it is also the most expensive part. Sixty to eighty per cent of the cost of humanitarian aid is a cost related to supply chain (OCHA, 2015). Therefore, the supply chain of humanitarian organizations should act at a high performance in order to be responsive and cost effectiveness and at the same extent should avoid as much as possible any disruption or break in supplies or commodities.

In recent decades, the effectiveness of humanitarian supply chains has been hindered by numerous challenges, resulting in suboptimal performance in delivering essential supplies to those in need. There are many examples where humanitarian organizations could not respond in time to humanitarian situations, where they had a cut in supplies or provided derivable at high cost.

One of the common examples is the earthquake disaster occurred in Pakistan on October 8, 2005. The earthquake was massive, with a magnitude of 7.6 on Richter scale. It hits 95 kilometers northeast of the capital Islamabad, affecting all region of South Asia including Afghanistan and India. Ripple of following earthquakes continued for next few months. The earthquake had a severe impact on the people, 73,000 persons were killed, and 3.5 million individuals were internally displaced. Despite all efforts exerted by humanitarian organizations and the local government, however supply chain of humanitarian relief needs failed to respond specially in remote villages (Gattorna, 2016 ).

A similar incident of the Turkey-Syria earthquake unfolded on February 6th, 2023, causing widespread devastation to

critical logistics infrastructure. According to the Turkish authorities, key ports and near airports had a severe damage. Unusable highways rendering truck transportation virtually impossible due to impassable roads. Concurrently, power outages disrupted industrial output, leading to substantial delivery delays, and bringing the whole supply chain to a bottleneck (Turkishmaritime, 2024). These impressive challenges have triggered significant delays in the delivery of essential goods, resulting in severe bottlenecks within the humanitarian supply chain. Regrettably, this impacts the timely delivery of life-saving materials to the affected people in dire need (Kowalczyk, 2023 ).

Also, one of recent examples, in 2020, the World Health Organization (WHO) faced significant challenges in its supply chain for personal protective equipment (PPE) during the COVID-19 pandemic. The global demand for PPE surged, leading to shortages and delays in the procurement and delivery of supplies. The WHO called for urgent action to address these challenges and improve the availability of PPE for health workers around the world (WHO, 2020).

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In 2018, the United Nations Children's Fund (UNICEF) faced challenges in its supply chain for vaccines in several countries. In Nigeria, one of the clear examples, delays in the procurement and distribution of vaccines led to shortages, and some children were not vaccinated on schedule. The agency worked with the government and other partners to address these challenges and ensure that children received the vaccines they needed (UNICEF, 2022).

And last but not least, another example of World Food Programme (WFP), in 2017, when faced transportation and logistics challenges in delivering food assistance to vulnerable communities in Yemen. The ongoing conflict in the country made it difficult to access some areas, and the agency had to rely on airdrops to deliver supplies. However, airdrops are expensive and can be challenging to coordinate, resulting in delays and shortages (WFP, 2022).

Based on the previously mentioned review, it is apparent that the efficiency and responsiveness of the humanitarian supply chain can be hindered by numerous challenges. In a study conducted on 40 humanitarian organizations operating in Kenya, five factors were identified as

contributing to these challenges: unclear definition of the role of supply chain management in humanitarian operations, interruptions in the operation caused by domestic barriers, uncertainty in demand due to unforeseen emergencies, difficulty in accessing targeted beneficiaries, and fluctuation in material prices due to increased demand (Nyamu, 2012).

The research problem derives from the context described above. Challenges in supply chain management of humanitarian organizations are increasing by high level of uncertainty in the environment while there is a global limitation in performance of the humanitarian supply chain. This condition can be interpreted by the lack of efforts in humanitarian supply chain design, which reflects negatively on the operation and results in poor services provision.

This study addresses a critical gap in the existing literature by proposing a structured and contextualized framework for understanding performance of supply chain for humanitarian organizations in the angle of integration and specifically beneficiaries. Unlike current literature, which primarily focuses on supply chain models for public or private entities, this research introduces a

performance model of humanitarian supply chain.

### **Humanitarian Supply Chain Performance**

Tan and his colleagues define the performance of supply chain as “the effective management of internal competencies and practices related to supply chain that can achieve a competitive advantage” (Tan, Kannan, & Handfield, 1998). This definition gives a broad vision on what the performance of supply chain should be, and results gained by achieving this performance. However, this definition lacks determination of the performance notion and what metrics could be used to capture it.

Despite the wide agreement on the importance of supply chain management in the operation at any organization, however there is no agreement on how to define the performance of supply chain, and according to what model and instrumental measures. The confusion in defining performance of supply chain refers to two main reasons. Firstly, there are many departments involve in supply chain and each business unit has its own scope of work and success indicators to measure performance. For example, sales department links

performance of supply chain with high rate of sales and high number of customers reached. While supply department considers supply chain performs well when it has a short lead time, production management focuses on low cost of materials, quality and turnover of stock. The second reason refers to the notion of supply chain itself. Supply chain management is usually viewed in abstract which makes it difficult to find instruments to measure elements of performance (Bechtel & Jayaram, 1997; Dong-Young, 2013; Rai, Patnayakuni, & Seth, 2006).

The two key factors introduced, contribute to the widening the gap when comparing the supply chains of humanitarian, profitable, and public sector organizations, each with distinct mandate, scope and vision. In this discussion, there is a focus on highlighting the gap and how beneficiary integration contribute to performance in every thematic organization. In next section, the concept of integration and beneficiary integration is introduced.

### **Supply Chain integration**

Integration as a concept becomes avital requirements in all business models, and it have many applications across all management fields. The concept of

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integration can be defined generally as “the extent to which separate parties work together in a cooperative manner to arrive at mutually acceptable outcomes” (O’Leary-Kelly & B.E., 2002). The impact of integration has been discussed thoroughly by scholars especially in the science of supply chain and at different levels (externally and internally) (S. & Chalmeta, 2014). Supply chain integration is highly considered as a leverage for the organization to develop its competitive advantage (Swink, Narasimhan, & Wang, 2007).

One of early definitions of supply chain integration was provided by Houlihan (1987). Supply chain integration can be defined as “the integration of the various functional areas within an organization to enhance the flow of goods from immediate strategic suppliers through the manufacturing and distribution chain to end users”. Another definition is “Supply Chain Integration is most commonly defined as the strategic collaboration within a supply chain, among its stakeholders, in order to improve the management of intra- and inter-organization processes” (Pinto & Diemer, 2020).

In common, supply chain integration is discussed in the form of horizontal and vertical structures. horizontal integration is to extend the boundaries of the organization towards its customers and suppliers. While vertical integration expands boundaries towards external stakeholders including government and political stakeholders, and partner organizations (Lambert, Emmelhainz, & Gardner, 1996).

However, there is unclear understanding on what constructs and direction of integration should be followed in order to emerge high performance supply chain (Gimenez & Ventura, 2005). Some scholars pay attention to internal integration as a catalyst that puts all internal efforts of all cogs, business units, to make the machine of supply chain working effectively. Other authors consider other different elements such as information (Prabir , Byoung , & Tage , 2005), supplier, customer (Wantao, Mark , David , & Harvey, 2013) integration or combination of two or more (Dong-Young , 2013), specially internal , supplier and customer integration (Liu, Liu, & Gu, 2021).

It is worth mentioning that not all researchers agree on the positive impact of

integration among supply chain elements on performance. Empirical analyses conducted by some researchers have shown varying results, with instances where the relationship between supply chain integration and performance either does not exist or even exhibits a negative correlation, one of these examples is the work of Swink and his colleagues (2007). These findings highlight the complexity and contextual nature of supply chain integration. While integration is often considered beneficial in terms of enhancing coordination, collaboration, and information sharing among supply chain partners, the actual outcomes may differ based on several factors. These factors could include industry-specific characteristics, organizational culture, the level of interdependence among supply chain entities, and the extent of technological adoption. The contradictory results emphasize the need for a nuanced understanding of supply chain integration and its impact on performance. It is essential for organizations to carefully assess their specific circumstances, evaluate the potential benefits and risks of integration, and tailor their strategies accordingly.

But still integration concept was not extended more to include humanitarian supply chain, despite there are some studies discussed civil-military cooperation like “Civil-Military Cooperation in Response to a Complex Emergency” by Sebastian Rietjens (2008) and “Using the military in disaster relief: systemizing challenges and opportunities” by Heaslip and Barber(2014).

By the 1990s, organizations began to realize the increasing importance of actively involving customers in their management processes to create superior customer value. This recognition led to a significant shift in supply chain management practices, as organizations sought to extend their boundaries and integrate customers into the overall supply chain. Researchers and practitioners alike began emphasizing the critical role of customer integration in achieving high supply chain performance (Martinelli & Tunisini, 2019).

Bowersox et al. (2002) conducted a study that underscored the significance of effective customer integration in the supply chain. They argued that organizations cannot attain high supply chain performance without a well-designed and smooth integration of customers,

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particularly in today's highly uncertain business environment. The authors highlighted that customer integration should go beyond simply treating the customer as the end receiver of the supply chain, but rather position the customer as the central focus of the entire supply chain process. This perspective involves actively involving customers in various stages, from product design and development to order fulfillment and after-sales support.

In a highly competitive market environment characterized by immense product variety, unpredictable demand patterns, and short product life cycles, customer integration emerges as a crucial requirement for supply chain success. With customers actively integrated into the supply chain, organizations can gain a deeper understanding of customer needs, preferences, and expectations. This knowledge empowers organizations to align their operations more effectively, anticipate demand fluctuations, and tailor their offerings to meet customer requirements. By leveraging customer insights and collaboration, organizations can achieve improved supply chain responsiveness, enhance customer satisfaction, and

ultimately gain a competitive edge (Juttner, Christopher, & Baker, 2007).

The concept of customer integration holds particular significance in the context of humanitarian supply chain management. While the term "customer" is often replaced with "beneficiary," the fundamental principle remains the same - satisfying the needs and requirements of the recipients of humanitarian aid. Humanitarian organizations aim to provide timely assistance and support to affected individuals or communities in crisis situations. Therefore, customer or beneficiary integration becomes crucial for humanitarian organizations to effectively meet their social mission and achieve a humanitarian competitive advantage (Chen & Graddy, 2010).

Oloruntoba and Gray (2009) argue that in the scope of humanitarian supply chain management, customer or beneficiary integration is essential, especially in highly unpredictable and challenging environments. These environments often feature scarce resources, limited infrastructure, and complex logistics. By actively involving beneficiaries in the supply chain, humanitarian organizations can gain insights into their unique needs,

preferences, and cultural sensitivities. This integration allows organizations to tailor their aid programs accordingly, ensuring a more efficient and effective allocation of resources, delivery of aid, and overall humanitarian response.

Moreover, customer integration in humanitarian supply chains enables organizations to foster trust, transparency, and accountability. By involving beneficiaries in decision-making processes and incorporating their feedback, humanitarian organizations can demonstrate a genuine commitment to their welfare. This engagement also enhances the legitimacy and credibility of the organization, contributing to long-term partnerships and community support (Overstreet, Hall, Hanna, & Kelly Rainer, 2011).

In conclusion, customer or beneficiary integration is a vital component of successful supply chain management. The importance of beneficiary integration can be understood from several perspectives:

- **Improved Aid Delivery:** By involving beneficiaries in the decision-making process, humanitarian organizations can better align their operations

with the actual needs of the affected population. This leads to more targeted and effective aid delivery (Kovács , Matopoulos , & Haye, 2010).

- **Enhanced Supply Chain Resilience:** Beneficiary integration can enhance the resilience of humanitarian supply chains by leveraging the local knowledge and resources of the affected communities. This can help in identifying alternative distribution routes, reducing transportation costs, and improving the overall efficiency of the supply chain (Muggy & Stamm, 2020).
- **Increased Transparency and Trust:** Active involvement of beneficiaries in the supply chain can increase transparency and trust between the beneficiaries and the humanitarian organizations. This can lead to better coordination and cooperation, which are essential for the success of humanitarian operations (Hashemi, Handayanto, Masudin, Zulfikarijah, & Jihadi, 2022).

## **Paper search**

In this study, an extensive systematic literature review was conducted to identify and analyze existing research on beneficiary integration within humanitarian supply chains. The review process involved searching across more than 126 million academic papers in four major databases: IEEE Xplore, Web of Science, Scopus, and JSTOR. From this comprehensive search, 61 articles were retrieved as the most relevant to the research query.

A two-stage screening process was applied to ensure the relevance of the selected studies. In the first stage, titles, abstracts, and keywords were reviewed to identify papers addressing supply chain operations. In the second stage, full-text screening was conducted based on the following inclusion criteria:

- The study examines supply chain operations with explicit discussion of integration approaches.
- The study includes analysis of supply chains by the organizational scope of humanitarian, public, private, and/or non-profit organizations.
- The study includes direct consideration of beneficiary

perspectives or experiences in the analysis.

This systematic approach was chosen because it allows for a comprehensive, unbiased, and replicable assessment of existing literature. By integrating multiple high-quality databases, the method ensures a wide and diverse coverage of both theoretical and empirical studies. It also enables the identification of research gaps, common themes, and best practices, thereby providing a strong foundation for the development of the proposed performance model. Moreover, the SLR method ensures that findings are grounded in evidence rather than anecdotal observations, making the conclusions more robust and generalizable across humanitarian contexts.

The third procedure include extracting process which focus on the following:

- List types of organizations (Public, Private, Humanitarian (non-profit))
- Level of beneficiary involvement (4 levels proposed:
  - Early planning /decision making,
  - Purchasing,
  - Information sharing,

- Beneficiaries feedback)
- Contextual factors influencing beneficiary integration.
- Specific mechanisms or strategies of integration.

**Table 1 shows a summary for the systematic desk review:**

**Table 1- Summary of studies**

	STUDY	TYPE OF ORGANIZATION	LEVEL OF BENEFICIARY INVOLVEMENT	MECHANISMS OR STRATEGIES OF INTEGRATION	CONTEXTUAL FACTORS INFLUENCING BENEFICIARIES INTEGRATION
1	(Jemi, Habib, & Alam, 2024)	Private sector	Purchasing	Consistent training, transparent communication, and impact-oriented partnerships.	Access to information
2	(Bell & Sherlock, 2020)	Private sector	Information sharing	Full integration with both suppliers and customers at planning stage	Constrains by government
3	( Imam, 2024)	Private sector-food	Early planning /decision making	effective communication, collaboration among stakeholders, alignment of common goals, and continuous assessment of integration processes.	ethical practices
4	(Mehmeti, Musabelliu, & Xhoxhi, 2016)	Private sector	Information sharing	Information sharing	Uncertainty in demand
5	(Mia & Islam, 2014)	Private sector	Information sharing	demand creation, supplier and customer intimacy, and customer retention.	Balance between product's quality and price factors
6	(Jamali, Raeesi, & Hashemi, 2011)	Private sector	Purchasing	participating in product development	Trust
7	( Lilze, 2000)	Private sector	Information sharing	Effective communication with beneficiaries	Communication gap
8	(Torabi, Shokr, Tofighi, & Heydari, 2018)	Humanitarian	Early planning /decision making	Developing a novel integrated relief pre-positioning and procurement planning model.	environmental uncertainty
9	(Muggy & Stamm, 2020)	Humanitarian	Early planning /decision making	Decentralization scheme in beneficiary integration	Scarcity of Resources

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10	(Burkart, Nolz, & Gutjahr, 2017)	Humanitarian	Early planning /decision making	enhancing decision-making for distribution centers. By considering beneficiaries' predicted behaviors,	Scarcity of Resources
11	(Kovács , Matopoulos , & Haye, 2010)	Humanitarian	Early planning /decision making	Community-based approach	Communication gap
12	(Timperio, et al., 2022)	Humanitarian	Early planning /decision making	a beneficiary-centric approach	Communication gap
13	(Kim, Pettit, Harris, & Beresford, 2018)	Humanitarian	Early planning /decision making	collaboration among aid actors, fostering effective partnerships.	Complexity of emergency situations
14	( AlAdem, Childerhouse, Egbelakin, & Wang, 2018)	Humanitarian	Early planning /decision making	effective partnerships	cost and dynamic demand
15	(Smith, 2025)	Public sector	Beneficiaries feedback	beneficiary experiences/feedback	the quality, geographical accessibility, procedural efficiency
16	(Vuppuluri, 2024)	Public sector	Beneficiaries feedback	capacity-building initiatives, and technology utilization for streamlined operations.	societal mindsets, limited financial support, and logistical challenges
17	(Tian, Huo, Park, & Kang, 2021)	Humanitarian	Early planning /decision making	Developing collaboration approaches	Complexity of emergency situations
18	(Munir, Jajja, Chatha, & Farooq, 2020)	Private sector	Information sharing	Information sharing	Trust
19	(Huo, 2012)	Private sector	Purchasing	Customized services	Trust

### Discussion

This discussion is based on the desk review for a range of studies examining beneficiary integration mechanisms across various types of organizations. It highlights the levels of beneficiary involvement, specific

strategies of integration, and contextual factors that influence the integration of beneficiaries. The following discussion synthesizes the findings from these studies.

#### 1. Types of Organizations

The studies include three major categories of organizations, each with different approaches to beneficiary integration:

**Private Sector:** The private sector remains the most prevalent category in this review, with numerous studies focusing on various industries, including food and agriculture, commercial and manufacturing (e.g., Jemi, Habib, & Alam, 2024; Mia & Islam, 2014). These studies highlight the integration of beneficiaries through processes like purchasing, information sharing, and creating customized services.

**Humanitarian Sector:** Humanitarian organizations feature prominently, particularly in contexts where beneficiary needs are urgent, and resources may be limited. These organizations often involve beneficiaries at the early planning/decision-making stage (e.g., Torabi et al., 2018; Kim et al., 2018). This early engagement is critical for ensuring that relief efforts are appropriately tailored to the needs of the affected populations.

**Public Sector:** Studies focusing on the public sector (e.g., Smith, 2025; Vuppuluri, 2024) emphasize the importance of beneficiary feedback in shaping policies and services. These studies highlight mechanisms such as

feedback loops and capacity-building initiatives to ensure that public programs are responsive to community needs.

## 2. Level of Beneficiary Involvement

The level of beneficiary involvement varies significantly across the studies, with common patterns emerging for each sector:

**Early Planning/Decision-Making:** The most common level of involvement across humanitarian and private sector studies is early planning and decision-making (e.g., Imam, 2024; Kim et al., 2018). In this stage, beneficiaries actively participate in project design, shaping objectives, and planning interventions. This approach is essential for ensuring that the outcomes of the projects align with beneficiaries' actual needs and priorities.

**Information Sharing:** Several private sector studies focus on sharing information with beneficiaries as a key integration mechanism (e.g., Bell & Sherlock, 2020; Munir et al., 2020). This often includes regular updates, transparent communication, and integrating beneficiaries in the planning and execution of supply chain.

**Purchasing:** A number of private sector studies also emphasize beneficiary

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involvement in purchasing decisions (e.g., Jemi, Habib, & Alam, 2024; Jamali et al., 2011). In these cases, beneficiaries may participate in product development, selection of services, or the procurement process.

**Beneficiary Feedback:** Public sector studies often focus on collecting feedback from beneficiaries once the project or service is delivered (e.g., Smith, 2025). This helps in evaluating the effectiveness of interventions and adjusting policies or services to better meet beneficiary needs.

### 3. Specific Mechanisms or Strategies of Integration

The review identifies several strategies that organizations use to integrate beneficiaries effectively into their processes:

**Communication:** Transparent and consistent communication is a cornerstone strategy across all sectors. Studies such as those by Jemi, Habib, & Alam (2024) and Lilze (2000) emphasize the importance of clear, effective communication channels between organizations and beneficiaries to ensure transparency and trust.

**Collaboration and Partnerships:** A frequent strategy in both the private and humanitarian sectors is the development of

collaborative approaches. Studies such as Kim et al. (2018) and Torabi et al. (2018) highlight the importance of collaboration among various stakeholders, including beneficiaries, aid actors, and suppliers. These partnerships help align goals and improve outcomes.

**Capacity Building:** Empowering beneficiaries through capacity-building initiatives is another key strategy, especially in the public and humanitarian sectors. For example, Vuppuluri (2024) emphasizes the use of technology and training to streamline operations and enhance beneficiary participation.

**Trust-Building:** Trust plays a significant role in beneficiary integration, particularly in the private sector. Studies such as Jamali et al. (2011) and Huo (2012) underscore the importance of building trust between organizations and beneficiaries, which can lead to better cooperation, more effective product development, and greater beneficiary satisfaction.

### 4. Contextual Factors Influencing Beneficiary Integration

Contextual factors profoundly impact how beneficiaries are integrated into projects,

influencing the depth and effectiveness of their involvement. The following contextual factors were consistently noted across the studies:

**Access to Information:** One of the most mentioned factors is the beneficiaries' access to information. As noted in Jemi, Habib, & Alam (2024), access to timely and accurate information is critical for beneficiaries to make informed decisions and participate effectively in projects.

**Government Constraints:** Bell & Sherlock (2020) and other studies highlight the influence of government regulations, which can either facilitate or hinder beneficiary participation. These constraints may include bureaucratic processes, legal limitations, or restrictions on how beneficiary feedback can be incorporated into decision-making.

**Cultural and Ethical Practices:** Cultural and ethical considerations also play a role, particularly in humanitarian contexts (e.g., Imam, 2024). Understanding cultural sensitivities and ensuring that ethical standards are maintained can greatly enhance beneficiary integration, especially in diverse settings.

**Resource Availability:** A common challenge identified in humanitarian studies is the scarcity of resources, which can limit the extent to which beneficiaries can be involved. Studies such as Muggy & Stamm (2020) and Burkart et al. (2017) emphasize how resource limitations affect the scale and quality of beneficiary integration efforts.

**Complexity of Emergency Situations:** In humanitarian settings, the complexity of emergency situations, as highlighted by studies like Kim et al. (2018) and Tian et al. (2021), can complicate the integration of beneficiaries. The urgency and unpredictability of such situations often require rapid decision-making and may limit the time and capacity for deep beneficiary involvement.

In conclusion, this review highlights the diverse beneficiary integration strategies employed across various organizational types, emphasizing the need to tailor approaches to the specific context in which they operate. The studies underscore that early planning and decision-making are crucial stages for beneficiary involvement, particularly in humanitarian and private sector settings. Key strategies for successful integration include transparent

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communication, fostering collaboration, and building trust. Additionally, contextual factors such as access to information, resource availability, and government constraints play a significant role in determining the extent of beneficiary involvement.

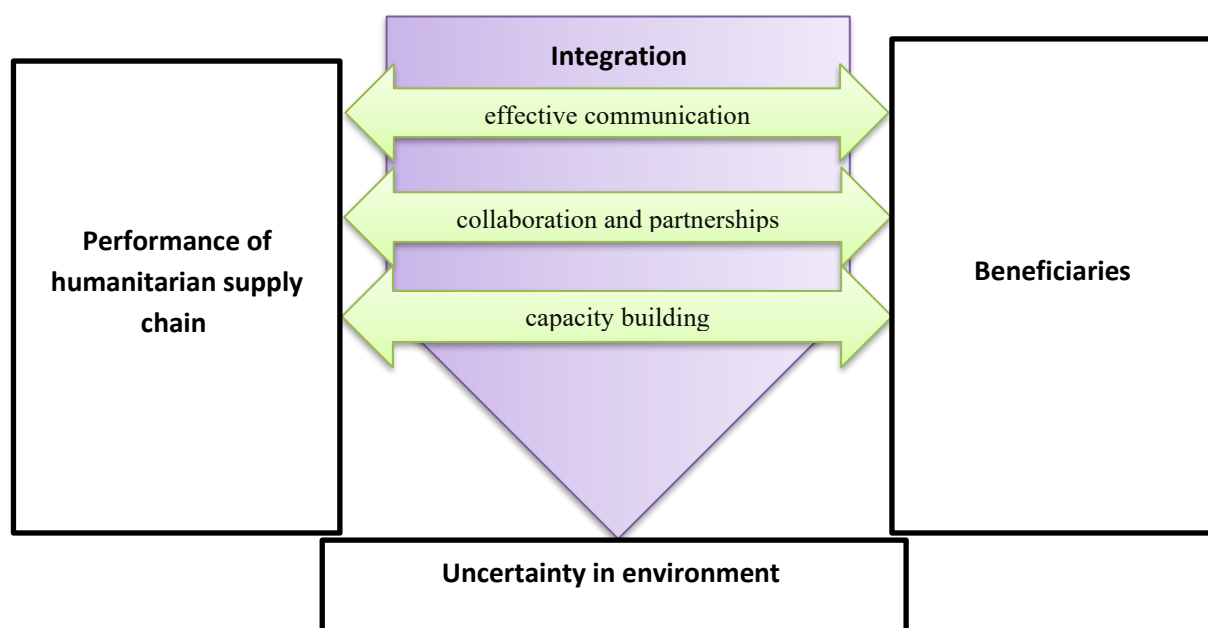
The findings suggest that the degree of beneficiary integration is most pronounced in humanitarian organizations, where deep, early engagement is prioritized. In contrast, integration efforts in the private sector are more moderate, with a focus on information sharing and purchasing involvement. Meanwhile, the public sector tends to exhibit the weakest levels of beneficiary integration, often limited to feedback mechanisms. Overall, these insights reinforce the necessity for a flexible, context-sensitive approach to beneficiary integration that accounts for the unique challenges and opportunities inherent in each organizational and sectoral environment.

### **Humanitarian supply chain model**

Building on the previous discussion, the proposed model focuses on strategies that

humanitarian organizations should adopt in their supply chains to achieve effective beneficiary integration. These strategies include effective communication, collaboration and partnerships, and capacity building.

By emphasizing these strategies, the model (illustrated in Figure 1) offers a comprehensive framework for enhancing the performance and responsiveness of humanitarian supply chains in critical situations.



### Conclusions

This paper highlights the distinct strategies used for beneficiary integration in humanitarian supply chains, contrasting them with the approaches in the public and private sectors. Humanitarian organizations often operate under unpredictable and resource-constrained conditions, making the need for a tailored performance model clear. Our analysis shows that while traditional strategies focused on efficiency and cost-effectiveness are valuable, they fall short in addressing the urgent, flexible nature of humanitarian operations.

The proposed model, which centers on key dimensions of beneficiary integration and the strategies outlined, offers an essential

framework for enhancing humanitarian supply chain performance. By prioritizing rapid response and adaptability, organizations can significantly improve their ability to meet the

urgent needs of vulnerable populations during crises. The key dimensions of this model include effective communication, collaboration and partnerships, and capacity building.

Future research should focus on the practical implementation and validation of the proposed performance model across diverse humanitarian contexts. Empirical studies involving field-based applications, case analyses, and longitudinal assessments would provide valuable insights into the

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model's effectiveness and scalability. Additionally, comparative research exploring the integration of digital tools, data analytics, and cross-sector collaboration could further enhance understanding of how beneficiary-centered strategies translate into measurable performance improvements.

In conclusion, this study not only fills a critical gap in the existing literature but also serves as a practical guide for researchers and practitioners alike. By adopting the proposed performance model, humanitarian organizations can better navigate the complexities of their supply chains, ultimately leading to more effective and timely aid delivery in times of need. Furthermore, this model encourages ongoing evaluation and adaptation, ensuring that organizations remain responsive to the evolving challenges they face. As the humanitarian landscape continues to change, the insights from this research can help foster a more resilient and impactful approach to crisis response.

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