

# Relationship Implication Guidelines for Developing Supplier Relationship Management

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**Abstract**—Supply disruptions can cause humanitarian supply chains instability. Good practices in supplier relationship management (SRM) can save cost and can minimize supply disruption risks. Although the humanitarian supply chain literature provides approaches for developing procurement strategies according to commodity categories, it does not suggest relationship implication guidelines for each commodity category. The aim of this study is to develop relationship implication guidelines for four commonly-used commodity categories: strategic, bottleneck, leverage, and non-critical. Commercial supply chain literature suggests relationship implication guidelines. An adaption to the humanitarian context of the suggested relationship implication guidelines was carried out by research team. Three managers of World Vision International (WVI), an international humanitarian organization operating in disaster relief and development aid programs, were involved in the revision of the adapted guidelines. Findings show that the managers of WVI agreed with the initial adaptation of the guidelines and further offered key descriptions for each commodity category: (1) suppliers of strategic commodity must have a clear understanding of WVI objectives and beneficiaries; (2) suppliers of strategic commodity need to be aware of WVI's supply risks in order to be ready for any worse case scenario; (3) negotiation on vendor managed inventory and maintenance of safety stock are critical for managing bottleneck commodity; and (4) the simplification of sourcing methods and tools for non-critical commodity is required to increase the efficient use of staff resources. To the humanitarian literature, this study contributes by offering relationship implication guidelines for the four commodity categories as a starting point for further development of SRM.

**Keywords**—supplier relationship management, humanitarian supply chains, relationship implication guidelines, commodity categories

## I. INTRODUCTION

Supplier relationship management (SRM) is critical not only to commercial supply chains but also to humanitarian supply chains. In the commercial supply chain literature, SRM has proved to be critical to businesses and is developed to, for example, increase competitiveness, reduce risk, pursue sustainability, achieve cost efficiency, and improve performance [1]. Similarly, practitioners in humanitarian supply chains also desire to save costs, reduce the shortage of relief supplies, and shorten delivery time [2-3]. However,

researchers in this field have long attempted to develop guidelines related to issues of SRM such as supplier selection and supplier development [2].

From a practical perspective, there are a few humanitarian organizations implementing SRM in practice [3]. Some have started to include and develop local suppliers into its supply chains such as the World Food Program [4]. Some others have encountered challenges regarding implementing of SRM [3, 5]. Researchers observed that these challenges might be due to several reasons: relying on many suppliers to better respond to disasters that occur randomly in time and geographically; low purchasing power of humanitarian organizations over suppliers; difficulty in tracking suppliers [5-6]. This, highlights the need of guidelines related to SRM [2].

The commercial supply chain literature suggests an approach to develop SRM classified into five strategic sub-processes and seven operational sub-processes [1]. In this study, the focus is on the strategic level, as it is a prerequisite before implementing SRM at the operational level [1]. In the humanitarian supply chain literature, there are a few studies investigating strategic SRM [7-8] and these studies merely provide approaches on how to identify criteria for segmenting commodities and how to develop a set of procurement strategies based on identified criteria. However, they do not offer guidelines on how to develop supplier relationships in each commodity category.

The aim of this study is to propose guidelines for supplier relationship implications. Relationship implication guidelines developed in the commercial supply chain literature were adapted, modified, and validated by an international humanitarian organization operating in disaster relief and development aid programs. To the humanitarian supply chain literature, this study offers relationship implication guidelines as a starting point for further development of SRM in the humanitarian supply chain context.

## II. LITERATURE REVIEW

In the commercial supply chain literature, SRM is a business process offering a structural guideline on how relationship with suppliers can be developed and maintained [1]. There are five sub-processes for developing strategic SRM: (1) review corporate, marketing, manufacturing and sourcing strategies; (2) identify criteria for categorizing suppliers; (3) provide guidelines for the degree of

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customization in the product/service agreement; (4) develop framework of metrics; and (5) develop guidelines for sharing process improvement benefits with suppliers [1]. In this study, the focus is on the second sub-process.

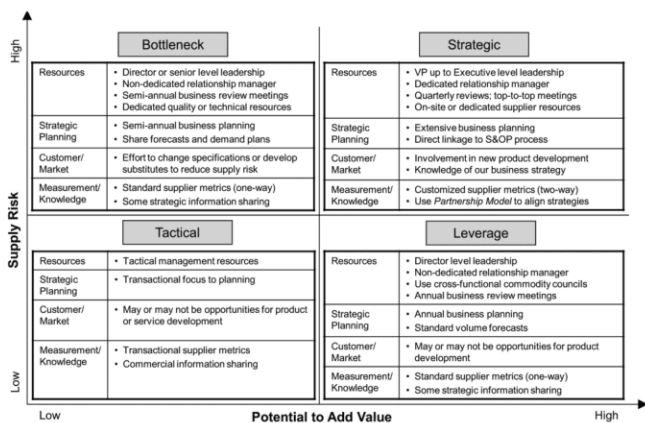
In the second sub-process, an organization needs to identify criteria that will be employed to segment commodities and suppliers. Criteria should meet the specific needs and goals of humanitarian organizations [7]. A segmentation scheme is required for further processes at the operational level and this will be employed to identify commodity categories and suppliers. Similar to the commercial supply chain literature [1], a segmentation scheme that is commonly-used the humanitarian supply chain literature includes four categories of commodity: strategic, bottleneck, leverage, and non-critical [7-8].

From a humanitarian supply chain perspective, the four commodity categories are classified based on two main criteria: the strategic importance of purchase and supply vulnerability. The strategic importance of purchase refers to any influence of purchased commodities on the humanitarian organization's performance. Supply vulnerability refers to any risk that may be, for example, a result of sourcing difficulties and supply disruptions. Based on the two main criteria, the four commodity categories have different characteristics as follows.

- Strategic commodity is determined as having high impact on both the strategic importance of purchase and supply vulnerability.
- Bottleneck commodity is specified as having a low level of the strategic importance of purchase but high level of supply vulnerability.
- Leverage commodity is perceived as high in the strategic importance of purchase but low in supply vulnerability.
- Non-critical commodity is identified as low in both the strategic importance of purchase and supply vulnerability.

Once managers have obtained criteria and categories of commodity, they need to develop relationship implication guidelines for each commodity category (Figure 1) [1]. However, the guidelines obtained from the commercial supply chain literature need to be adapted to fit the humanitarian context.

Fig. 1. Relationship implication guidelines [1]



### III. METHODOLOGY

#### A. Adaptation of the Approach

The relationship implication guidelines provided in the commercial supply chain literature [1] were adapted using two steps. Firstly, the research team investigated details of each category and adapted them to fit the context of humanitarian supply chains in general. The revised version of relationship implication guidelines was then given to managers of an international humanitarian organization to help validate and modify. The context of World Vision International and the process of modification of the revised guidelines are presented as follows.

#### B. World Vision International (WVI)

WVI is a Christian relief, development, and advocacy organization dedicated to working with children, families, and their communities to reach their full potential by tackling the root causes of poverty and injustice. World Vision serves all people, regardless of religion, race, ethnicity, or gender in more than 100 countries. WVI's focus is on helping the most vulnerable girls and boys overcome poverty so they can experience fullness of life now and in the future. WVI is driven by the desire to ensure that every girl and boy has what they need to grow in mind, body, and spirit. Every day, nearly 35,000 staff work hard to empower children to live lives filled with joy.

WVI has more than 70 years of experience and expertise in effective development and relief practices to empower communities to become self-sufficient and bring real, lasting change. As a leading global partner, WVI work alongside supporters, stakeholders, families, and communities to transform lives and offer hope. As a result, all lives are enriched. Together, with partners, WVI has positively impacted the lives of more than 200 million vulnerable children around the world in 2020-2021.

#### C. Modification of the Revised Guidelines

The three management-level staff of WVI participated in revising the proposed version of relationship implication guidelines. The modification was conducted via online meeting and emails. The managers were informed about the background, descriptions, and objectives of SRM as well as the research aim. They were also informed about the revised relationship implication guidelines. The managers were asked to modify each commodity category and asked to add additional information if needed, in order to revise the suggested version to fit the WVI context.

### IV. FINDINGS

Findings related to the four commodities categories and the respondents' additional information are reported hereunder.

#### A. Relationship Implication Guideline for Strategic Commodity

The commodities in this category impact WVI and had high possibilities for supply disruption, which would deteriorate WVI's performance. It was advised to develop long-term relationships with suppliers and to manage risk and vulnerability. The organization objective is to obtain long-term growth for both parties, i.e., the suppliers and WVI. Suppliers desire to have long-term profit growth while WVI aims for long-term societal development, maximize

beneficiaries' well-being, and save lives as much as possible (in the case of disaster relief).

TABLE I. RELATIONSHIP IMPLICATION GUIDELINE FOR STRATEGIC COMMODITY

Aspect	Description
Resources	Head of Department / Senior Buyers as well as Regional Supply Chain Management / Global Supply Chain Management level leaderships play critical roles in forming the relationship.
	A dedicated relationship manager / Head of Department / Senior Buyers (category owners) can help foster the relationship and implement plans.
	Conduct top-to-top meetings quarterly to keep updated progress and information
	Visit supplier resources / locations / plants on-site
	<i>Welcome supplier to WV projects sites / communities / etc. for better understanding of WV operations</i>
Strategic planning	Develop extensive organizational planning and <i>supplier communication plan and framework</i>
	<i>Perform the supplier rationalization analysis to narrow down the focus in SRM on strategic suppliers</i>
	<i>Identify and share supply risks and disruptions with suppliers to be prepared for the worse</i>
	Develop a direct linkage to "Sales and operations planning" process between the WV and its suppliers
Customer / market	Involve in the suppliers' new product development to meet the WV's need and the supplier's financial objective
	<i>Conduct rigorous market commodity option analysis to identify strategic supplier alternatives based on product portfolio analysis</i>
Measurement	Develop customized supplier metrics that can be used to assess both parties (two-way metric); for example, both the WV and its suppliers who need to save logistics costs may use efficiency-related metrics.

Italic denotes the additional information from the respondents

### B. Relationship Implication Guideline for Bottleneck Commodity

The commodities in this category have low impacts to WVI but being able to acquire these commodities is considerably challenging and vulnerable. Advised strategies are, for example, securing supplies through safety stock and searching for alternative suppliers. The objective for both parties is to reduce risk and vulnerability, avoid potential disruptions, and ensure supply continuity.

TABLE II. RELATIONSHIP IMPLICATION GUIDELINE FOR BOTTLENECK COMMODITY

Aspect	Description
Resources	Head of Department / Senior Buyers (category owners) play critical roles in forming the relationship.
	A non-dedicated relationship manager is appropriate.
	Conduct business review meetings semi-annually to update progresses and information
	The WV has a concern on specific aspects such as quality of materials or technical resources
Strategic planning	Develop semi-annual business planning
	Share some strategic information, such as forecasts and demand plans, with the suppliers
	<i>Negotiation on vendor managed inventory or maintain safety stock</i>
Customer / market	Collaborate with suppliers to change product/services specifications or develop substitutes to reduce supply risk
Measurement	Develop standard supplier metrics that can be used to assess only the supplier's performance (one-way metric); for example, the WV can use lead time rate or order fulfillment rate to assess its suppliers.

Italic denotes the additional information from the respondents

### C. Relationship Implication Guideline for Leverage Commodity

The commodities in this category are of high impacts to WVI but the associated sourcing complexities and supply vulnerabilities were low. WVI can avoid high resource allocation, but should leverage its buying power. The organization objective is to obtain major cost saving and maximize utilities of using products/services. Market competition between the suppliers is an advantage to WVI.

TABLE III. RELATIONSHIP IMPLICATION GUIDELINE FOR LEVERAGE COMMODITY

Aspect	Description
Resources	Head of Department / Senior Buyers (category owners) play critical roles in forming the relationship.
	A non-dedicated relationship manager (category owner) is appropriate
	Conduct annual business review meetings to update progresses and information
Strategic planning	Use cross-functional teams to strategize the organization-wide sourcing of certain categories of products or services at the lowest costs (i.e. volume leveraging)
	Develop annual business planning
Customer / market	Share some strategic information, such as the standard volume forecasts
Customer / market	May or may not participate in the supplier's product development
Measurement	Develop standard supplier metrics that can be used to assess only the supplier's performance (one-way metric); for example, the WV can use a volume discount rate to determine the future suppliers.

Italic denotes the additional information from the respondents

### D. Relationship Implication Guideline for Non-Critical Commodity

The commodities in this category were of low impacts to WVI and were low on supply burdens and vulnerabilities. The main objective is thus cost reductions by removing unnecessary complexity and increase free-up time for other works. In other words, it is about simplicity and efficiency.

TABLE IV. RELATIONSHIP IMPLICATION GUIDELINE FOR NON-CRITICAL COMMODITY

Aspect	Description
Resources	Tactical management resources / <i>buyers / finance person / operation</i>
Strategic planning	Employ <i>transactional planning and spend analysis</i>
	Share only commercial-related information / <i>maintain distance relationship</i>
	<i>Alternative and simplified sourcing methods / tools (bulk / online purchase)</i>
Customer / market	Ensure <i>minimum procurement risk mitigation control</i>
Customer / market	May or may not participate in the supplier's product development
Measurement	Develop transactional supplier metrics depending on the purpose of a certain transaction.

Italic denotes the additional information from the respondents

## V. DISCUSSIONS

There is an interesting information provided by WVI respondents. Regarding the strategic commodity category, the commercial supply chain literature suggests firms to perform on-site visits at its supplier resources, locations, and plants. The WVI respondents further emphasized that WVI also welcome its suppliers to have a site visit at WVI and have a clear understanding of WVI projects, beneficiary communities. This is critical to suppliers that have different purposes of doing business, as compared to the purpose of

humanitarian organizations [9]. Business firms need to understand that WVI has different corporate goals. In addition, WVI considered the identification and sharing of supply risks and disruptions with suppliers as a critical step to do in order to prepare its suppliers to be ready for any worse case scenario. The supply risks and their impact in commercial supply chains differ from those in the humanitarian context. For example, compared with commercial supply chains, supply risks and disruptions are challenging in relief and recovery efforts and can worsen relief operations during disaster crises [10].

Regarding bottleneck commodity, WVI respondents suggested that in strategic planning, they emphasized more on a negotiation of a vendor managed inventory program and maintain safety stock. These two management practices are critical to humanitarian organizations. For example, during the immediate aftermath of a disaster, safety stock is a crucial strategy, as it can reduce the effects of panic buying and price surges, and finally can reduce the impact of supply chain disruptions [11].

Regarding non-critical commodity, WVI respondents considered the simplification of sourcing methods and tools. This is because humanitarian organizations often have a limited number of staff performing activities in the preparation phase and the response phase of disaster relief [12-13]. Thus, maximizing the utilization of staff resources may be a critical issue to any humanitarian organizations and should be done with non-critical or non-value-added activities such as sourcing non-critical relief supplies.

## VI. CONCLUSION

This study provided initial relationship implication guidelines for four commonly-used commodity categories: strategic, bottleneck, leverage, and non-critical. WVI respondents agreed with the relationship implication guidelines suggested from the commercial supply chain context, and also offered insights for each commodity category from their respective perspective.

To the humanitarian supply chain literature, this study contributes by offering initial relationship implication guidelines for the four commodity categories as a starting point for further development of SRM. However, more work is needed. One critical limitation of this study is that the proposed relationship implication guidelines can be used only by WVI and its regional administrative offices. The proposed relationship implication guidelines need to be adapted to more cases and validated in future research. The current version may not be able to use with general cases of humanitarian organizations. A challenge is that how many

cases we do need in order to settle the adapted initial relationship implication guidelines.

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